U.S. DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

Central Yukon

Proposed Resource Management Plan/Final Environmental Impact Statement



FINAL

Volume 3: Appendices L-U

April 2024

Prepared by:

U.S. Department of the Interior
Bureau of Land Management

In Cooperation with:

U.S. Fish and Wildlife Service
Allakaket Tribal Council
Ruby Tribal Council
Koyukuk Tribal Council
Tanana Tribal Council
Nulato Tribal Council
Venetie Tribal Council
State of Alaska

Mission

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

Cover Photo: Dalton Highway Utility Corridor.

Photo by Craig McCaa (BLM).

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Appendix L

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ACRONYMS AND ABBREVIATIONS

	Full Phrase
AIM	Assessment, Inventory, and Monitoring
AO	Authorized Officer
BLM	Bureau of Land Management
PNC	potential natural condition
RMP	resource management plan

Appendix L. Reclamation Requirements for All Surface-Disturbing Activities

L.1 INTRODUCTION

The Bureau of Land Management's (BLM) assessment, inventory, and monitoring (AIM) strategy standardizes field methods, electronic data capture and storage, and appropriate sample designs. This allows the BLM to collect data once and use the data for multiple applications from broad- to local-scale assessments of management objectives. At the broad scale, AIM data can be used to characterize the range of potential natural conditions (PNCs), from which the condition and trend of individual plots or stream reaches can be compared to assess the attainment of management objectives. The BLM's Land Use Planning Handbook H-1601-1 states that "Effectiveness monitoring is the process of collecting data and information in order to determine whether or not desired outcomes (expressed as goals and objectives in the land use plan) are being met (or progress is being made toward meeting them) as the allowable uses and management actions are being implemented." It is BLM policy that AIM data will be used to assess the effectiveness of resource management plans (RMPs) in meeting land use planning objectives (IM 2023-043 Assessment Inventory and Monitoring (AIM) data application to Land Use Plan Effectiveness and NEPA Analysis).

The Central Yukon RMP planning area includes large expanses of intact landscape. The primary divergence from natural conditions occurs with surface-disturbing activities from permitted actions, as well as trespass and emergency response actions. BLM regulations governing minerals and realty authorizations include general reclamation standards. However, they are qualitative, cannot be readily compared between programs or projects, and in some cases are expected to be refined through the land use planning process. For example, BLM Handbook H-3809-1 (Section 5.2.3) states, "Land use plans can be used to set reclamation objectives or identify the location of applicable measures needed to meet the performance standards. For example, a land use plan may be used to identify the location-specific measures that need to be in a fisheries rehabilitation plan submitted under 43 Code of Federal Regulation 3809.401(b)(3)(v), in order to meet the fisheries rehabilitation requirement under 43 Code of Federal Regulation 3809.420(b)(3)(ii)(E). Another example is for the land use plan to describe the species, seed mix, or treatments applicable to reclaiming surface disturbance in certain portions of the planning area."

AIM data characterize the range of resource conditions across the landscape using measurable, repeatable indicators. IM 2023-043 requires use of AIM data to assess RMP effectiveness, states ". . . if objectives are not met or if the area is not making progress toward meeting the objectives, the field office will conduct a causal factor analysis and whether or not the cause is the result of BLM decisions, the resulting report should discuss if and how the BLM can work to reduce or eliminate any of the causal factors." For allocative activities, such as opening an area to off-highway vehicle use, a monitoring program based on AIM protocols can provide after-the-fact monitoring of outcomes to help inform adaptive management strategies. However, for surface-disturbing authorizations, assessing reclamation results to ensure they effectively meet resource condition objectives as they are carried out avoids the need for adaptive response.

In addition, a common, measurable reclamation requirement applied to all surface-disturbing activities means that reclamation standards and evaluation metrics on public lands become a known quantity, allowing industry and managers to make more informed decisions with less uncertainty. This provides advantages for both industry and land managers, including:

- National Environmental Policy Act and permitting can be streamlined by providing a robust, reusable framework and terminology to standardize the analysis of reclamation plans, regardless of activity.
- Industry can rely on reclamation requirements and success criteria that do not change from operation to operation, regardless of the nature of the activity, providing consistency and predictability that are critical to successful business decisions.
- An appropriate ecological context based on site potential and actual range of environmental variability can eliminate perceptions of unrealistic reclamation expectations and perceptions that different operators are held to different standards.
- Operators or contractors, or both, can have trained crews that can assess reclamation at many different types of operations using the same data and methods that the BLM uses.
- The BLM can more readily achieve consistency across authorizations and have improved confidence that the decisions will achieve desired resource conditions.
- The BLM can confidently demonstrate how management of permitted activities is meeting RMP objectives, achieving land health standards, and avoiding undue and unnecessary degradation of public lands.

The BLM would use the PNCs derived from AIM data to develop RMP objectives and reclamation plans with the goal of preventing unnecessary or undue degradation. Regardless of the nature of the activity, minimum reclamation objectives for all surface-disturbing activities in the planning area would be to meet the requirements of applicable law, regulation, and policy; remove all wastes and hazards; achieve erosion control and soil stability; establish self-sustaining native vegetation; and prevent the spread of nonnative invasive species. In addition, reclamation would be required to result in the recovery of aquatic and terrestrial habitats to within PNCs for the Central Yukon RMP planning area based on the distribution of selected AIM indicators (see Appendix D in AIM National Aquatic Monitoring Framework Technical Reference 1735-1 and BLM Core Indicators and Methods Technical Note 440). To achieve these objectives, reclamation that meets the standards herein would be required for all surface-disturbing activities in the planning area initiated under this RMP.

L.2 SURFACE-DISTURBING ACTIVITIES

For purposes of these standards, surface-disturbing activities are defined as those that involve excavation, earthwork, soil disturbance, soil compaction, stream bank alteration, increased soil erosion potential, vegetation removal, or vegetation damage extensive enough to affect vegetation health beyond one growing season.

The approach to achieving these standards would vary based on the following categories of surface-disturbing activity:

- **New authorized activities that afford the opportunity for pre-activity analysis and planning—** The proponent for authorized surface-disturbing activities would be required to conduct reclamation in accordance with these standards. Before issuing an authorization, the BLM may, at the discretion of the BLM Authorized Officer (AO) when not already required by regulation, require that the applicant for such activities provide a reclamation plan explaining how they would conduct reclamation and how they would monitor reclamation success to ensure these requirements were met. The BLM may also require that the applicant collect relevant baseline data and provide the data to the BLM before issuing an authorization, when such baseline data are required to determine

the appropriate PNCs for the site, or when it is believed that pre-disturbance site conditions may be at a departure from PNCs. Note that activities authorized prior to adoption of this land use plan are subject to the requirements of the plan in effect at the time they were authorized. Direction herein would not change reclamation requirements for previously authorized activities.

- **Modifications to previously authorized activities—**In general, reclamation requirements for modifications of previously authorized activities would be the same as those for new authorized activities. However, reclamation requirements for modifications of previously authorized activities would take into account shifted baseline conditions. In such circumstances, the AO would exercise discretion and flexibility in applying the exceptions in **Section L.4.2**.
- **Emergency response activities, such as fire suppression, oil spill response, or search and rescue—**The BLM would coordinate with emergency response organizations to achieve reclamation that meets these standards to the greatest degree possible.
- **Unauthorized activities, such as trespass, vandalism, or accidents—**The BLM would use available authorities to ensure that responsible parties reclaim disturbed public lands in accordance with these standards.

L.3 POTENTIAL NATURAL CONDITIONS

PNCs represent the range of chemical, physical, and biological conditions expected at a site under minimal anthropogenic impacts, but they include natural disturbances. This concept is prevalent in our everyday lives where percentiles are used as clinical indicators to assess the size and growth of children in the United States. Clinical assessments help to understand the range of human health, whereas AIM assessments help understand the range of PNCs to prevent unnecessary or undue degradation.

In the case of RMP objectives and reclamation plans, the BLM uses indicators of ecosystem health and percentiles to assess the attainment of management objectives. For indicators that are expected to decrease with disturbance (e.g., vegetation composition), values above the 25th percentile would be considered within PNCs. Values between the 25th and 5th percentile would be considered a moderate departure from PNCs, and values below the 5th percentile would be considered a major departure from PNCs. For indicators that are expected to increase with disturbance (e.g., the amount of bare ground, nonnative invasive plant species, and the proportion of soil surface in large intercanopy gaps), values below the 75th percentile would be considered within PNCs. Values between the 75th and 95th percentile would be considered a moderate departure from PNCs, and values above the 95th percentile would be considered a major departure from PNCs.

In practice, that means up to 75 percent of the representative AIM sites could be in better condition than the reclaimed site, which would only need to be in a similar condition as the lower 25 percent of the range of natural conditions (less in some cases; see **Section L.4.2**, below). This may result in a "lower bar" for some reclamation than current guidance. However, use of AIM ensures that reclamation results can be measured to avoid subjectivity, and are representative of PNCs and site potential within the region.

L.4 RECLAMATION REQUIREMENTS

Reclamation for surface-disturbing activity will be determined to be complete when the following criteria have been met:

- Meet all reclamation requirements in applicable law, regulation, or policy
- Remove or remediate any hazardous materials associated with the activity

- Remove or remediate any physical hazards resulting from the activity
- Remove all solid waste and debris associated with the activity
- Remove all associated buildings, structures, support facilities, and equipment, unless specifically authorized to remain
- Regrade and reshape the land to conform with adjacent landforms and to provide drainage control
- Establish measures necessary to control erosion, landslides, and water runoff
- Salvage and replace topsoil as a growth medium to the extent practicable
- Establish conditions within PNCs for selected AIM indicators:
  - For sites outside the 100-year floodplain of a perennial stream, establish conditions within PNCs for the following terrestrial AIM core indictors: amount of bare ground, vegetation composition, nonnative invasive plant species, and proportion of soil surface in large intercanopy gaps.
  - For sites within the 100-year floodplain of a perennial stream, establish conditions within PNCs for the following aquatic AIM indicators: bank overhead cover, bank cover and stability, percent riffle, floodplain connectivity, and riparian vegetation (understory and ground cover metrics). Interim benchmark objectives for aquatic AIM are outlined in **Table L-1**, below. These benchmarks will be updated based on the best available data for the region and latest science.

L.4.1 Time Frames

Time frames for achieving reclamation standards in some areas may be specified in the appropriate section of this plan. Some activities may specify a longer time frame in the authorization. For activities where the time frame is not otherwise specified, the BLM would require the design of reclamation methods to achieve reclamation objectives at the completion of reclamation. The stream reclamation will be monitored after 2 years and if standards are not achieved, the proponent would be required to remedy the factors contributing to the lack of success. In addition, the BLM may, at the discretion of the AO, require a detailed accelerated reclamation plan.

L.4.2 Exceptions

The following exceptions may be considered on a case-by-case basis:

- In the event there is insufficient AIM data to establish PNCs for an upland site at the time the BLM issues an authorization, the AO may approve an authorization-specific reclamation requirement of at least 70 percent native plant foliar cover with two consecutive growing seasons with self-sustaining upward trend. Self-sustaining upward trend means no fewer than two sample sets, measured at approximately the same time in the growing season during two consecutive growing seasons, which document an increase in plant foliar cover achieved without artificial stimulation, such as fertilizers or irrigation.
- On a case-by-case basis, the AO may approve reclamation plans that include objectives based on moderate departure from PNCs (5th–25th percentile range), provided that cumulatively the objectives lead to result in site stability and the prevention of unnecessary or undue degradation. This exception is designed to provide increased flexibility for sites that have had a history of disturbance.
- Outlier sites
  - When baseline data demonstrate that pre-disturbance site conditions are at a departure from PNCs, the AO may ask a BLM-led interdisciplinary team to evaluate the site and recommend a

site-specific threshold for the indicators in lieu of establishing conditions within PNCs. However, the BLM would grant no exceptions to PNCs to compensate for the loss of topsoil due to poor practices or negligence.

- Where disturbance occurs or is proposed to streams in valley types or landforms consisting of steep depositional fans or glacial troughs and outwash valleys, which have naturally braided or multi-threaded channels, reclamation should be focused on achieving site-appropriate valley profiles and establishing vegetation on the outer edges of the channel. This situation is expected to be very rare.

Table L-1
Interim Benchmark Objectives for Aquatic AIM

Indicator	Description	Predicted Response to Stress	Units	Range of Values (Min. and Max.)		5th Percentile	25th Percentile	75th Percentile	95th Percentile
Bank Overhead Cover	Average percent overhead cover provided by stream banks (left and right), vegetation, or other objects measured at the scour line of the left and right banks across 11 transects (n=44)	Decrease	%	0	99	23.2	49.5	.	.
Bank Cover and Stability	Percentage of 42 banks both stable (lacking visible signs of active erosions [e.g., slump, slough, and fracture]) and covered (greater than 50% cover provided by perennial vegetation, wood, or mineral substrate > 15 centimeter) (n=35)	Decrease	%	14	100	34	60	.	.
Floodplain Connectivity	The ratio of average floodplain height to average bankfull height taken from the thalweg = (floodplain height + thalweg depth) / (bankfull height + thalweg depth). This is also known as Rosgen's Bank Height Ratio (n=44)	Increase	None	0	1.9	.	.	1.4	1.6
Riffle Habitat	Percentage of riffle habitat based on the length of all riffles divided by the overall length of the sampled stream reach (n=11)	Increase	%	54	84	.	.	74	84
Riparian Vegetation Complexity: Understory Woody Cover	Measure of the average vegetative cover provided by woody understory vegetation (0.5–5 meters). Proportional cover was binned into four classes (0.875, 0.575, 0.25, and 0.05) and then averaged across the left and right banks of 11 transects. (n=43)	Decrease	None	0.07	0.77	0.21	0.34	.	.

Indicator	Description	Predicted Response to Stress	Units	Range of Values (Min. and Max.)		5th Percentile	25th Percentile	75th Percentile	95th Percentile
Riparian Vegetation Complexity: Understory Non-Woody Cover	Measure of the average vegetative cover provided by herbaceous understory vegetation (0.5–5 meters). Proportional cover was binned into four classes (0.875, 0.575, 0.25, and 0.05) and then averaged across the left and right banks of 11 transects. (n=44)	Decrease	None	0	0.27	0	0.02	.	.
Riparian Vegetation Complexity: Ground Woody Cover	Measure of the average vegetative cover provided by woody ground cover vegetation (< 0.5 meters). Proportional cover was binned into four classes (0.875, 0.575, 0.25, and 0.05) and then averaged across the left and right banks of 11 transects. (n=44)	Decrease	None	0	0.81	0.15	0.29	.	.
Riparian Vegetation Complexity: Ground Non-Woody Cover	Measure of the average vegetative cover provided by herbaceous ground cover vegetation (0.5–5 meter). Proportional cover was binned into four classes (0.875, 0.575, 0.25, and 0.05) and then averaged across the left and right banks of 11 transects. (n=44)	Decrease	None	0.16	0.72	0.22	0.31	.	.

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Appendix M

Approach and Summary to the Environmental Analysis

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ACRONYMS AND ABBREVIATIONS

	Full Phrase
AAAQS	Alaska Ambient Air Quality Standards
ACEC	areas of critical environmental concern
AHRS	Alaska Heritage Resource Study
ADNR	Alaska Department of Natural Resources
AKLNG	Alaska Liquified Natural Gas
ANCSA	Alaska Native Claims Settlement Act of 1971
ANILCA	Alaska National Interest Lands Conservation Act of 1980
BCA	backcountry conservation area
BLM	Bureau of Land Management
BMP	best management practice
CAMA	Central Arctic Management Area
CFR	Code of Federal Regulations
CYRMP	Central Yukon Resource Management Plan
DOT&PF	Alaska Department of Transportation & Public Facilities
EIS	environmental impact statement
EO	executive order
ERMA	extensive recreation management area
FLPMA	Federal Land Policy and Management Act of 1976
FO	Central Yukon Field Office
FR	*Federal Register*
FNSB	Fairbanks North Star Borough
GHG	greenhouse gas
GIS	geographic information system
GMT	Greater Mooses Tooth
INHT	Iditarod National Historic Trail
LWC	lands with wilderness characteristics
MP	milepost
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act
NNIS	nonnative, invasive species
NSO	no surface occupancy
NTMC	National Trail Management Corridor
NWSR	National Wild and Scenic Rivers System

PFYC	Potential Fossil Yield Classification
OHV	off-highway vehicle
ORV	outstandingly remarkable value
PLO	public land order
RFD	reasonably foreseeable development
RFFAs	reasonably foreseeable future actions
RMA	recreation management area
RMP	resource management plan
RNA	research natural area
ROD	record of decision
ROW	right-of-way
SRMA	special recreation management area
TAPS	Trans-Alaska Pipeline System
TMA	travel management area
U.S.	United States
U.S.C.	United States Code
VRI	visual resource inventory
VRM	visual resource management
WSA	wilderness study area
WSR	wild and scenic river

Appendix M. Approach to the Environmental Analysis

M.1 Introduction

Direct, indirect, and cumulative impacts are considered in this effects analysis. The effects analysis was performed consistent with direction provided in 40 Code of Federal Regulations (CFR) 1502.16, Considering Cumulative Effects under the National Policy Act (CEQ 1997); BLM (Bureau of Land Management) National Environmental Policy Act (NEPA) Handbook H-1790-1 (BLM 2008); Council on Environmental Quality NEPA regulations for incomplete or unavailable information, 40 CFR 1502.21; and the executive memorandum to all federal agencies dated June 24, 2005, regarding Guidance on the Consideration of Past Actions in Cumulative Effects Analysis (CEQ 2005).

M.2 Direct and Indirect Impacts

Direct and indirect impacts are considered in **Chapter 3**, consistent with direction provided in 40 CFR 1502.16.

> **Direct Effects**—Effects that are caused by the proposed action and occur at the same time and place (40 CFR 1508.8). Examples of direct effects are filling of wetlands through the placement of gravel pads, and direct mortality of wildlife or vegetation.
>
> **Indirect Effects**—Effects that are caused by the proposed action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects "may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR 1508.8). Indirect effects are caused by the proposed action but do not occur at the same time or place as the direct effects.

Potential effects are quantified where possible using geographic information system (GIS) and other applications; in the absence of quantitative data, best professional judgment prevailed. Impacts are sometimes described using ranges of potential impacts or in qualitative terms. The standard definitions for terms used in the analysis are as follows, unless otherwise stated:

> **Context**—Describes the area or location (site specific, local, planning area-wide, or regional) in which the potential impact would occur. Site-specific impacts would occur at the location of the action, local impacts would occur in the general vicinity of the planning area, planning area-wide impacts would affect most or all of the planning area, and regional impacts would extend beyond the planning area boundaries.
>
> **Duration**—Describes the length of time an effect would occur, either short term or long term. Short term is anticipated to begin and end within the first 5 years after an action is implemented. Long term lasts beyond 5 years to the end of or beyond the 20-year resource management plan (RMP) time frame.
>
> **Intensity**—Impacts are discussed using quantitative data where possible.

M.3 INCOMPLETE AND UNAVAILABLE INFORMATION

The Council on Environmental Quality guidelines requires that when an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement and if there is incomplete or unavailable information, the agency shall always make clear that such information is lacking (40 CFR 1502.21). If there is relevant information, but "the overall costs of obtaining it are exorbitant or the means to obtain it are not known" (40 CFR 1502.21), the regulations instruct that the following should be included:

- A statement that such information is unavailable.
- A statement of the relevance of such information to evaluate reasonably foreseeable significant adverse impacts.
- A summary of existing information that is relevant to evaluating the adverse impacts
- The agency's evaluation of adverse impacts based on generally-accepted scientific methods

The M.6 Resource Indicators and Assumptions tables: Resource Scoping Issues, Analysis Assumptions, and GIS Maps and Calculations sections of this appendix list incomplete or unavailable information.

M.4 CUMULATIVE IMPACTS

The cumulative impact analysis considers impacts of a proposed action and its alternatives that may not be consequential when considered individually; however, when they are combined with impacts of other actions, they may be consequential. As defined by Council on Environmental Quality regulations (40 CFR 1508.7 and 1508.25(a)(2)), a cumulative impact is as follows:

> . . . the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions [RFFAs] regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Because of the programmatic nature of an RMP, this cumulative effects analysis methodology is broad and generalized to address potential effects that could occur from a reasonably foreseeable management scenario combined with other reasonably foreseeable activities or projects. The cumulative effects analysis evaluates the projected trends and forecasts of each resource, resource use, or special designation that could result from the RMP. To understand the RMP's influence on cumulative effects, trends and forecasts are identified in consideration of:

- Past and present actions (synonymous with the affected environment, described in the Proposed Central Yukon RMP [CYRMP]/final environmental impact statement [EIS] Chapter 3)
- Reasonably foreseeable actions along with past and present actions (this is also representative of Alternative A)
- Each RMP action alternative along with past, present, and RFFAs

This analysis provides a broad understanding of how each alternative would influence the cumulative effects, or trends and forecasts, for each resource, resource use, or special designation in the same geographic area. If the resource trend is projected to change as a result of any action alternative, that constitutes a cumulative impact. The impact could be adverse or beneficial, depending on the direction of the change.

M.4.1 Method

The method used for the cumulative impacts analysis in this RMP/EIS consists of the following steps:

- Identify issues, characteristics, and trends in the affected environment that are relevant to assessing cumulative effects of the action alternatives. This includes discussions on lingering effects from past activities that demonstrate how they have contributed to the baseline condition for each resource. This information is summarized in **Chapter 3**.
- Define the spatial (geographic) and temporal (time) frame for the analysis. This time frame may vary between resources depending on the historical data available and the relevance of past events to the current baseline.
- Identify past, present, and RFFAs, such as human activities and natural phenomena, that could have additive or synergistic effects. Summarize past and present actions, within the defined temporal and spatial time frames, and identify any RFFAs that could have additive, countervailing, or synergistic effects on identified resources.
- Use a specific method to screen all the direct and indirect effects, when combined with the effects of external actions, to capture those synergistic and incremental effects that are potentially cumulative in nature. Both adverse and beneficial effects of external factors are assessed and then evaluated in combination with the direct and indirect effects for each alternative on the various resources to determine if there are cumulative effects.
- Evaluate the impact of the potential cumulative effects and assess the relative contribution of the action alternatives to cumulative effects.
- Discuss the rationale for determining the impact rating, citing evidence from the peer-reviewed literature and quantitative information where available. When confronted with incomplete or unavailable information, ensure compliance with 40 CFR 1502.21.

The analysis also considers the interaction among the impacts of the proposed action with the impacts of various past, present, and RFFAs, as follows:

Additive—The impacts of actions add together to make up the cumulative impact.

Countervailing—The impacts balance or mitigate the impacts of other actions.

Synergistic—The impact of the actions together is greater than the sum of their individual impacts.

In this RMP/EIS, both the temporal and geographic scope of the cumulative impact analysis could vary according to the resource under consideration. Generally, the temporal scope of this analysis is the life of the RMP, which encompasses a 20-year planning period. The geographic scope generally encompasses the planning area but may extend beyond this area for some resources that are mobile or migrate (e.g., terrestrial wildlife). Details associated with the impact indicators, geographic scope, and analysis assumptions for each resource are found in **Section M.4**, below.

M.4.2 Past, Present, and Reasonably Foreseeable Future Actions

Relevant past and present actions are those that have influenced the current condition of the resource. For the purposes of this RMP/EIS, past and present actions are both human controlled and natural events. Past actions were identified using agency documentation, NEPA analyses, reports and resource studies, peer-reviewed literature, and best professional judgment.

The term "reasonably foreseeable future action" is used in concert with the Council on Environmental Quality definitions of indirect and cumulative effects, but the term itself is not defined further. Most regulations that refer to "reasonably foreseeable" do not define the meaning of the words but do provide guidance on the term. For this analysis, RFFAs are those that are external to the RMP and are likely (or reasonably certain) to occur, although they may be subject to a degree of uncertainty. Typically, they are based on such documents as plans, permit applications, and fiscal appropriations. RFFAs considered in the cumulative effects analysis consist of projects, actions, or developments that can be projected, with a reasonable degree of confidence, to occur over the next 20 years.

The BLM evaluated recent environmental reports, surveys, research plans, NEPA compliance documents, and other source documents to identify these actions. RFFAs were assessed to determine if they were speculative and would occur within the analytical time frame of the RMP/EIS. Projects and activities considered in the cumulative effects analysis are summarized in **Table M-1**, below.

Table M-1
Past, Present, and Reasonably Foreseeable Future Actions that Comprise the Cumulative Impact Scenario

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Lands and Realty (rights-of-way [ROWs])	Ambler Road	The Record of Decision (ROD) was signed in July 2020. The ROD was litigated. Following litigation, in 2022, the Department of the Interior requested a voluntary remand after additional legal analysis had revealed deficiencies in the BLM's analysis of subsistence impacts under ANILCA Section 810 and consultation with tribes pursuant to Section 106 of the National Historic Preservation Act (NHPA). The BLM published a Draft Supplemental EIS in October 2023.	The applicant proposes to construct a new 211-mile roadway along the southern flanks of the Brooks Range, extending west from the Dalton Highway to the south bank of the Ambler River. The proposed road would provide industrial access for surface transportation to the Ambler Mining District. The proposed road would not be designed or open for public access and would be open only to industrial traffic to support expanded exploration, mine development, and mine operations at mineral prospects throughout the Ambler Mining District.	The road would be open only to mining-related industrial use; it would be closed to the public. The project would include bridges, material sites, maintenance stations, and related infrastructure and utilities. The project is also expected to create job and business opportunities for rural residents in north-central and northwest Alaska through road construction, operations, and maintenance, and the construction, operations, and maintenance of mines. Millions of dollars in government revenues are anticipated as well.

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Public Land Orders	ANCSA 17(d)1s Withdrawals	The BLM published a Draft EIS in December of 2023 and accepted comments until February 2023. The BLM will publish a Final EIS and Record of Decision at the appropriate time.	The Resource Management Plans for each Planning Area associated with this EIS are the following: • Bay Planning Area • Bering Sea-Western Interior Planning area • East Planning Area • Kobuk-Seward Peninsula • Ring of Fire Planning Area	The EIS considers the impacts of opening lands subject to ANCSA 17(d)(1) Withdrawals, including lands within the Bay, Bering Sea-Western Interior, East Alaska, Kobuk-Seward Peninsula, and Ring of Fire planning areas, Alaska. Revocation of existing ANCSA 17(d)(1) Withdrawals have the potential to allow obtaining mining claims (location) or applications for title (entry) under some or all the public land laws, including the mining laws.
ROW/Transportation Networks	Arctic Strategic Transportation and Resources	Varies	Varies	Information on these projects has already been provided through the reasonably foreseeable development (RFD) scenario and current lands and realty authorizations. This is a conceptual project by the State of Alaska; the BLM has authorized one route out of the many in the concept. https://www.arcgis.com/apps/Cascade/index.html?appid=ab8be9349a08477ebfb66d017e0aec8d
Resource Management Plan	Bering Sea-Western Interior	The BLM released the Final EIS in December of 2020 and the Record of Decision and Approved Resource Management Plan in January of 2021.	The Bering Sea-Western Interior Planning area is made up of 13.5 million acres of BLM-administered public lands south of the Central Yukon watershed to the southern boundary of the Kuskokwim River watershed and all lands west of Denali National Park and Preserve to the Bering Sea.	The resource management plan provides broad guidance for managing public lands and documents decisions that guide future land management actions and subsequent site-specific implementation decisions in the Bering Sea- Western Interior planning area, adjacent to the Central Yukon planning region.
ROW	Bettles Winter Road	Varies	Varies	Similar to above; this project has already been included in current authorized projects but should be considered in the cumulative effects.

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Lands and Realty (land status)	Effective State-selected Lands and Top-filed Lands	Dependent; see description	Unknown	The State of Alaska has effective state selections throughout the planning area. The State is currently over selected, and it is unknown which lands may be conveyed; however, all lands that have effective selections should be considered as eligible for conveyance within the life of the plan. This will result in some land pattern changes over the landscape. Lands, encumbered by State- or Native- selections by Public Land Order (PLO) 5150 in the Dalton Utility Corridor, are not effective selections but top-filed lands. The top-filed lands will become effective selections once the PLO is revoked. The State has expressed that this is a high priority, and it is reasonable to assume that these lands, once any portions of the PLO are revoked and a effective selection attaches, will be conveyed within years of the revocation.
Lands and Realty (communication sites)	GCI TERRA	Ongoing	Throughout western Alaska, near the planning area	GCI Communication Corporation has worked and will continue to work on improving its broadband access across the western region of Alaska through its TERRA network, or Terrestrial for Every Rural Region in Alaska. This provides high-speed broadband service to 84 western Alaska communities and 45,000 residents from the Northwest Arctic Borough to Bristol Bay, by installing over 100 cell towers. The network relies on communication towers in the western region of the planning area near BLM-managed lands. A helicopter refueled these towers in summer 2018, which cost around $1.5 million dollars. Such projects are likely to continue in the future, and will cause impacts related to disturbance by helicopter, the need for diesel fuel to power the towers, and any other potential construction and maintenance that may occur on this network.
Lands and Realty (communication sites)	Cell Towers	In August 2017, GCI launched coverage in the area for the first time by constructing a cell tower along milepost (MP) 175 of the Dalton Highway.	Along the Dalton Highway	GCI and other companies will likely establish and expand cell service via towers along the Dalton Highway spanning out from Coldfoot to Deadhorse. The addition of cell service along the Dalton Highway is part of $30 million GCI is spending to expand coverage statewide. Increasing availably of mobile communication on the Dalton Highway would benefit those using the route for tourist and commercial purposes.

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Lands and Realty (ROWs)	High-Speed Broadband to Doyon Region, as part of the Alaska FiberOptic Project	Ongoing, latest press release was in August of 2022	The Alaska FiberOptic Project aims to connect up to 20 communities along the Yukon and Kuskokwim Rivers with fiber-optic cable	The BLM anticipates that construction associated with fiber optic utility infrastructure will be ongoing in the Doyon Limited region. Impacts related to construction and maintenance are likely to occur.
Mining	Livengood Gold	The Feasibility Study Summary National Instrument 43-101 was published September 4, 2013. Pre-feasibility study results were published September 8, 2016.	The mining area is 48,000 acres and is located 70 miles northwest of Fairbanks. The mine is located in the Tolovana mining district within the Tintina Gold Belt.	The Livengood area has been placer mined since 1914. It is anticipated to produce 294,000 ounces of gold annually over the estimated 23-year life of the mine. The company controls 100 percent of its 75-square-mile land package, which is made up of Alaska State mining claims, fee simple land, federal placer claims, mineral lands leased from the Alaska Mental Health Land Trust, and leases with private holders of federal patented and unpatented lode and placer claims.[1]
Mining	True North	No longer operational. Final phases of site reclamation.	The 615 acres of existing facility disturbance are located approximately 25 highway miles northeast of Fairbanks, Alaska.	Mining activities ceased in 2009, and reclamation of the site began in 2010. As of 2014, the site was almost fully revegetated and prescribed for monitoring over the next several years.
Mining	Fort Knox	The mine was originally permitted in 1994 and currently operates 24 hours a day, 365 days a year.	The Fort Knox area is located approximately 25 highway miles northeast of Fairbanks, Alaska. The open pit is projected to cover approximately 0.4 square miles at mine closure. The tailings dam and pond would cover approximately 1.75 square miles.	On primarily State of Alaska and private lands in the Fairbanks North Star Borough (FNSB). Active, open-pit, truck, and shovel gold mining operation that uses carbon-in-pulp, heap leach, and gravity processes, located approximately 25 miles northeast of Fairbanks, Alaska. Production to date is around 330,000 ounces annually.

[1]A mining claim is a parcel of land for which the claimant has asserted a right of possession and the right to develop and extract a discovered, valuable, mineral deposit. Lode Claims—Deposits subject to lode claims include classic veins or lodes having well-defined boundaries. They also include other rock in-place bearing valuable minerals and may be broad zones of mineralized rock. Placer Claims—Placer claims are defined as ". . . including all forms of deposit, excepting veins of quartz, or other rock in-place." In other words, every deposit not located with a lode claim should be appropriated by a placer location.

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Mining	Ucore Rare Metals – Ray Mountains	Ucore is planning expanded exploration once the federal government tentatively approves title transfer.	The project area and mining claims are located along the Ray River and Kanuti-Kilolitna watersheds.	The Ray Mountains region has alluvial deposits that contain rare earth elements, on which Ucore Rare Metals plans to expand exploration. They are most abundant in lower-elevation terrain.
Military	Clear Air Force Base – Long Range Discrimination Radar	The proposed final environmental assessment was released May 2020. Current plans called for construction to begin in 2019 and be completed in 2020. The radar is to begin defensive operations thereafter.	110 miles west of Fort Greely, and 78 miles southwest of Fairbanks. There is an 11,438-acre undeveloped installation and 350 acres of developed area.	Clear Air Force Base has obtained a $175 million Congressional approval for the construction of a fire station and Phase 1 construction of a Long Range Discrimination Radar.
Oil and Gas	Alyeska Decommissionin g of Pump Stations	Unknown	Pump stations in the inner corridor of Dalton Highway.	In the past and maybe in the future, Alyeska has decommissioned, or will decommission, existing pump stations. These stations, while not being used for that purpose, still have a development footprint on the land; however, decommissioning could potentially include activities in the future geared toward reclamation and restoration.
Oil and Gas	National Petroleum Reserve in Alaska Integrated Activity Plan	The Final EIS was published in June 2020.A ROD was published in January 2021. The BLM published a new ROD in April 2022.	Located in the National Petroleum Reserve in Alaska, an area of approximately 22 million acres located on Alaska's North Slope. This area is directly north and west of the Central Yukon planning area.	The new 2022 ROD adopts Alternative A, the No Action Alternative as analyzed in the 2020 Final EIS.

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Oil and Gas	Alaska Stand Alone Pipeline Project	The final supplemental EIS was completed in June 2018, and the ROD was signed on March 4, 2019. Construction was anticipated to begin in 2019; however, it is unknown at this time when construction will begin.	The 733-mile, low-pressure pipeline will run from Prudhoe Bay to Point MacKenzie, with a 30-mile lateral line between the main pipeline and Fairbanks.	The Alaska Stand Alone Pipeline is Alaska's in-state natural gas pipeline project designed to develop an affordable, long-term energy solution for Fairbanks, south-central, and as many other Alaskan communities as possible. The pipeline would carry up to 500 million cubic feet per day of consumer grade "lean gas." Lean gas is energy ready for delivery to, and consumption by, customers. The Alaska Stand Alone Pipeline project optimization confirms that the "lean gas" design model improves tariffs for the Interior Alaska, reduces overall project risk, reduces the impact on the environment, and presents the potential for more community natural gas takeoffs along the alignment.
Oil and Gas	Alaska Liquefied Natural Gas (AKLNG) Project	The ROD was signed in September 2020.	The 807-mile liquefied natural gas pipeline running from Prudhoe Bay to the port in south-central Alaska.	The AKLNG Project is comprised of the following integrated and interdependent facilities: a liquefied natural gas terminal in south-central Alaska designed to produce up to 20 million metric tons per annum of liquefied natural gas; an approximately 807-mile, 42-inch-diameter gas pipeline; a gas treatment plant within the Prudhoe Bay Unit on the North Slope; an approximately 1-mile, 60-inch-diameter gas transmission line connecting the gas treatment plant to the Prudhoe Bay Unit gas production facility; and an approximately 63-mile, 32-inch-diameter gas transmission line connecting the gas treatment plant to the Point Thomson gas production facility. The mainline of the AKLNG Project will traverse over 800 miles from the gas treatment plant on the North Slope of Alaska through several boroughs before it crosses Cook Inlet and connects with the liquefaction plant and marine terminal in Nikiski.

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Oil and Gas	Point Thomson Unit Gas Transmission Line	ExxonMobil purchased Point Thomson in April 2016	The planning area is 60 miles east of Prudhoe Bay. The field development covering an area of approximately 150 square miles involved the construction of three well pads: the central pad covering an area of 49 acres, and the east and west pads located about 4 miles each from the central pad and covering 18 acres each. An insulated pipeline measuring 22 miles in length and 12 inches in diameter conveys the gas condensate from the field and eventually to the Trans-Alaska Pipeline System (TAPS).	The current facilities at Point Thomson are capable of producing up to 10,000 barrels per day of natural gas condensates, which are diesel-like fluid that are shipped down the TAPS, and up to 200 million cubic feet of natural gas per day. ExxonMobil plans to increase production of condensate to 50,000 barrels per day by converting two injection wells to production wells. This plan would also increase gas production from the field.
Oil and Gas	TAPS	Ongoing	The 800-mile-long pipeline stretches from Prudhoe Bay in the North Slope to tidewater in Valdez.	TAPS is one of the world's largest pipeline systems. It has successfully transported more than 17 billion barrels of oil. At peak flow in 1988, 11 pump stations helped to move 2.1 million barrels of oil a day. Maintenance of the pipeline is expected to continue, and other pipelines may be built to feed into the system. Impacts from TAPS have included and will continue to include those related to construction, maintenance, and operation; establishment of man camps; creation and maintenance of access roads; fuel spills and dumps; habitat fragmentation; transport related to the pipeline, such as helicopter flights and tanker traffic; and economic benefits from resource extraction.

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Oil and Gas	Interior Energy Project	Construction began in 2018 and had a targeted completion date of 2019.	Greater Fairbanks	Joint project: Alaska Industrial Development and Export Authority; Alaska Energy Authority; the Department of Commerce, Community, and Economic Development; the Department of Revenue; and the Alaska Department of Natural Resources (ADNR) to find a solution to poor air quality and high energy costs common to Interior Alaska. Development of the Interior Gas Utility distribution system and expansion of the Fairbanks Natural Gas distribution system. As of 2015, these projects added up to an additional approximate 140 miles of installed natural gas distribution pipe in the FNSB. Alaska Industrial Development and Export Authority is evaluating both railroad and road alternatives to transport the liquefied natural gas. Alaska Industrial Development and Export Authority is currently negotiating with the FNSB Interior Gas Utility company to form a combined utility. The combined utility would then proceed with procurement of Cook Inlet gas liquefaction capacity and increased liquefied natural gas storage. Interior Gas Utility is also preparing to purchase the Titan liquefied natural gas liquefaction plant near Point McKenzie.
Oil and Gas	Nanushuk Project Exploration and Development	The final EIS was signed November 2018; the ROD and Permit Evaluation were signed May 2019.	The planning area covers 63,304 acres. It is in the North Slope, between the Kuparuk and Alpine Units.	Oil Search Alaska, LLC is proposing development of hydrocarbon deposits from its oil and gas leasehold on the North Slope of Alaska. The proposed Nanushuk Project will target oil deposits in the Alpine C and Nanushuk reservoirs. The Final EIS proposed action includes construction of the Nanushuk Pad comprised of three drill pads, a central processing facility, an operations center pad, infield pipelines, the export/import Nanushuk Pipeline, infield roads, an access road, a tie-in pad, and a lake pump house pad.
Oil and Gas	Smith Bay Development			
Oil and Gas	Northstar Unit, Endicott, and Milne Point	Operating	The unit is in the Beaufort Sea 12 miles northwest of Prudhoe Bay.	On April 22, 2014, BP Exploration Alaska, Inc sold interests in four British Petroleum-operated oilfields on the North Slope of Alaska to Hilcorp Alaska. The agreement includes associated pipelines in the Milne, Northstar, and Endicott fields.

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Oil and Gas	Greater Mooses Tooth (GMT) 1 and 2	GMT1 began operating and produced the first oil in October 2018. GMT2 first produced oil in 2021.	The planning area is in the North Slope, near Kuparuk River Field and Nuiqsut. GMT1 has an 11.8-acre drill pad, a 7.6-mile road, and pipeline facilities to connect to the company's nearby Colville River Unit infrastructure. GMT2 has a 14 acre drill pad, 8.2-mile road, and an 8.6-mile pipeline connecting GMT2 with GMT1.	GMT1 and GMT2 are both located on federal lands in the National Petroleum Reserve-Alaska. The GMT1 pad has seven wells with a capacity for up to 33 wells. Oil production is approximately 2,000 to 3,000 barrels per day. GMT2 has 18 wells, production of approximately 20,000 barrels per day. ConocoPhillips expects GMT2 to be in production for 30 years from 2020–2050.
Oil and Gas	Willow Master Development Plan	The ROD was signed in October 2020. In August 2021, the U.S. District Court for Alaska vacated the ROD and Final EIS. The BLM prepared a Supplemental EIS and a new ROD in March 2023.	The proposed action will be located in the Bear Tooth Unit in the northeast of the National Petroleum Reserve-Alaska.	The proposed Willow development includes three drill site locations necessary to economically develop the Bear Tooth Unit oil resources, an on-site Willow Central Processing Facility, and an infrastructure pad containing support facilities. The proposed road route provides the shortest road access route from the GMT Unit to the proposed Willow facilities. ConocoPhillips estimated the resource estimate to range between 400 and 750 million barrels of oil equivalent, and that Willow could produce 100,000 barrels of oil per day.
Oil and Gas	CD-5	Operating	CD-5, part of the Alpine field development, is situated in the boundaries of the National Petroleum Reserve-Alaska on land owned by Kuukpik Corporation and the village corporation for Nuiqsut, with mineral rights owned largely by Arctic Slope Regional Corporation.	This alpine field satellite development drill site is on Alaska Native village corporation lands near Nuiqsut and is the first commercial oil production from the National Petroleum Reserve-Alaska. As a satellite to the Alpine Central Processing Facility, CD-5 has only minimal on-site processing facilities; however, it required 6 miles of gravel road, four bridges, and 32 miles of pipelines including completion of a gravel road and natural gas pipeline from the Alpine Central Processing Facility into Nuiqsut. ConocoPhillips Alaska, Inc. plans to continue drilling wells at CD-5.
Oil and Gas	Spill Prevention and Response Exercises and Training	Ongoing	Beaufort Sea and Cook Inlet	Spill prevention and response exercises and training occur throughout the planning area and will continue to occur.

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Oil and Gas	Great Bear Pantheon LLC Exploration Well	Ongoing	National Petroleum Reserve in Alaska	Drilled exploration well (Theta West 1) and stimulated flowed oil (flow testing cut short due to weather)
Oil and Gas	Ongoing Maintenance	Ongoing	National Petroleum Reserve in Alaska	Ongoing maintenance, modifications, and upgrades to existing facilities that would not have ground disturbing activities.
Oil and Gas	BLM Legacy Well Cleanup	Ongoing	National Petroleum Reserve in Alaska	Up to 9 legacy wells surrounding the Willow Project area would be cleaned, plugged, and abandoned over the next 10 years. Access snow or ice roads may cross or be near the Project area
Transportation and Infrastructure	Dalton Highway Improvements	The design study report was released in August 2016.	Realignment of the highway from MP 0 to 9.	Alaska Department of Transportation & Public Facilities (DOT&PF) is planning the reconstruction and realignment of the highway from MP 0 to MP 9. There is a need for the project corridor to be updated to current safety standards as more than a third of the existing alignment has steep grades and sharp curves. The existing geometry also makes maintenance efforts difficult. The improvements include a reroute of the first 7 miles of the highway to the nearby valley bottom, widening the road to 36 feet, installation of culverts and drainage, and development of the material site at MP 6.5.
Transportation and Infrastructure	Dalton Highway Improvements	Currently in the preliminary design. Construction is anticipated to start in 2020.	Reconstruction of the highway from MP 18 to 37.	DOT&PF is upgrading the Dalton Highway to enhance safety and performance and reduce DOT&PF's maintenance costs. This project will reconstruct the Dalton Highway between MP 18 and MP 37, including drainage improvements, widening, and replacement of Hess Creek Bridge.
Transportation and Infrastructure	Dalton Highway Improvements	Currently in the preliminary design. Construction may be broken into three phases..	Dalton Highway MP 109 to 144	DOT&PF is reconstructing the Dalton Highway to address critical segments of the highway that do not meet current design standards. The project will address the narrow roadway, lack of shoulders, thawing permafrost, and drainage.
Transportation and Infrastructure	Dalton Highway Improvements	Construction is anticipated to begin in 2020.	Dalton Highway MP 305 to 335	DOT&PF is reconstructing the Dalton Highway to improve safety and reduce maintenance costs. The project will regrade and widen the road; flatten curves and grades; replace the Dan Creek Bridge at MP 331; construct new turnouts; improve drainage, including replacing and installing culverts; reconstruct approaches; and upgrade signing and delineators.

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Transportation and Infrastructure	Yukon River Reconnaissance Study	Currently developing preliminary alternatives. Unknown when improvements will begin.	Yukon River Bridge, Dalton Highway MP 56.	DOT&PF is conducting preliminary work for potential Yukon River Bridge improvements at MP 56 on the Dalton Highway. Previous improvement projects have included seismic retrofitting, which cost around $790,000. A reconnaissance study assessing existing conditions and initial needs was released in March 2018. The study concluded that "the Yukon River Bridge and Dalton Highway provide critical support to existing and future economic development and transportation needs of the Interior and North Slope of Alaska. The overarching project purpose is to ensure bridge access is maintained across the Yukon River." See http://dot.alaska.gov/nreg/yukonriverrecon/.
Transportation and Infrastructure	Frozen Debris Lobe, Dalton Highway	Unknown	Dalton Highway, MP 219	DOT&PF and Alyeska Pipeline are aware of slow-moving permafrost landslides along MP 219 that will affect both infrastructures. The frozen debris lobe, consisting of dirt, ice, and trees, is thought to increase its rate of yearly progression with warm weather. In 2018, the DOT&PF moved the Dalton Highway farther down the valley to buy the highway more time. No additional infrastructure relocations are planned at this time, as scientists and industry are monitoring the situation.
Transportation and Infrastructure	Parks Highway Improvements	Currently working toward final design. It is unknown when construction will begin.	Parks Highway MP 305 to 325	DOT&PF is reconstructing the Parks Highway to improve safety, eliminate seasonal load restrictions, and enhance commercial and recreation function. The project will repave; flatten curves and grades; replace the Little Goldstream Creek Bridge at MP 314; construct new and update passing lanes; improve drainage, including replacing and installing culverts; reconstruct approaches; and upgrade mailboxes, signing, and striping.
Transportation and Infrastructure	Alaska Intertie Project — Railbelt Power Pool Project.	Unknown	A 170-mile transmission line running between Willow and Healy	The 345-kilovolt transmission line includes several high-voltage transformers and three facilities placed in the Railbelt grid. In December 2019, Alaska's Railbelt Utilities signed a memorandum of understanding, comprised of six electric utility companies, to form a semi-independent regional grid and planning organization. The potentially proposed project is the development of additional intertie lies, as there is currently only one, connecting Homer to Fairbanks. This would eliminate single-point failure problems.

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Transportation and Infrastructure	Marine Shipping and Other Vessel Traffic	Ongoing	The Beaufort Sea and the Port of Seward	U.S. Coast Guard District 17 reported that for 2008 to 2012, total annual vessel traffic in the Arctic region grew from 120 to 250, a more than 100 percent increase. The growth rate was particularly high for tank vessels; tugs and other cargo vessels were the second and third largest categories of movements, respectively. Annually, more than 130,000 people and more than 2 million tons of cargo enter or exit Seward via the Alaska Railroad Corporation dock facilities.
Natural Event	Wildland fire	N/A	Statewide	The planning area is in a fire regime characterized by large, severe, stand-replacing wildfires. Since 2004, the likely largest wildfire year to date, approximately 26.6 million acres across the state have burned. Wildland fires are common in Interior Alaska during the summer months and are a result of both natural events (lightning strikes) and human-made events. The magnitude and frequency of wildland fire may change as a result of climate change.
Natural Event	Flooding	N/A	Statewide	Flooding may occur any time of the year across the state; however, it is most common in the spring during winter break-up and, in the fall, when precipitation is most frequent. Ice jams frequently dam thawing rivers and streams, restricting flow and resulting in flooding upstream. In 2015, flooding of the Sag River in Prudhoe Bay resulted in inundation of the Dalton Highway, the only land access point to North Slope oil fields. It cost Alyeska Pipeline over $10 million dollars in response. Heavy rains in 1967 resulted in Fairbanks “Great Flood,” resulting in four deaths and millions of dollars in damage. The town of Galena, Alaska, flooded in 2013, when an ice jam resulted in damming of the Yukon River. Over 90 percent of buildings were destroyed during the flood.
Natural Event	Earthquakes	N/A	Statewide	Alaska sits in an area of high seismic activity, with an average of one earthquake reported by the University of Alaska Fairbanks Alaska Earthquake Center every 15 minutes. The largest earthquake in Alaska occurred in 1964 (9.2 magnitude, Valdez); the largest Denali Fault earthquake occurred in 2002 (7.9, Cantwell). More than 50,000 earthquakes were recorded in Alaska in 2019.

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Natural Event	Climate Change	N/A	Statewide	Average temperatures have risen in Alaska 3 degrees Fahrenheit over the past 60 years. Increases in temperatures have resulted in earlier break-up of river ice, changes in precipitation quantity and timing (snow versus rain), potential increases in permafrost thaw, and changes in ecosystem composition. Potential climate change impacts on the state also include increases in loss of sea ice, increased sediment output from rivers/increased input to the Arctic Ocean, and increased ocean elevations and coastal erosion, all of which affect wildlife. Changes in weather patterns and storm intensities are likely to affect other resources.
Natural Event	Soil and Permafrost Changes	N/A	Statewide	Mass wasting and landslides occur throughout the state, especially in areas underlain by permafrost. Frozen debris lobes (solifluction lobes) also occur throughout the state, with several rapidly moving lobes occurring along the Dalton Highway. In addition to soil and vegetation impacts, water quality is often affected from the addition of sediments to waterways and floodplains. Thermokarsting and other permafrost changes, such as the thawing of massive ground ice, have similar impacts. The frequency of these events is increased by both climate changes and increased development. These changes to permafrost ground have impacts not only on environmental resources but on development and infrastructure. Roads need to be relocated and maintained with increased frequency, increased erosion control media is required for construction projects, and specialized building techniques must be utilized.
Natural Event	Invasive Species and Disease	N/A	Statewide	The number of potential vectors is likely to increase, given that Alaska is sensitive to the ongoing and increasing effects of climate change and that Alaska is and will continue to be a major international hub for transportation, trade, and shipping. The ADNR reported that invasive species management cost $29 million from 2007 to 2011 (see Institute of Social and Economic Research 2012, found here: https://iseralaska.org/static/legacy_publication_links/2012_07-InvasiveSpecies.pdf). The Alaska Department of Fish and Game developed an Aquatic Nuisance Species Management Plan in 2002 to address invasive species threats in the state. The ADNR also implements programs to manage invasive plant species like elodea and Canada thistle.

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Poaching	Illegal hunting or fishing of species outside of regulated hunting seasons, without proper authorizations in areas not authorized for hunting, or the take of species not authorized for hunting	N/A	Statewide	Big game species allowed for authorized take in Alaska include bison, caribou, elk, muskox, wolf, black and brown bear, Dall sheep, moose, deer, and mountain goat. Other small game and birds are also available. Poaching (illegal hunting) already occurs in the state. Increased access to undeveloped areas and increases in seasonal worker populations have the potential to increase the occurrence of illegal hunting along the proposed corridor.
Tourism and Recreation	Tourism, increased recreation, and increased demand for backcountry access for recreation opportunities	N/A	Statewide	Throughout the U.S., participation in and demand for backcountry recreation is increasing. Improvements in gear and the explosion of activities, such as packrafting, backcountry skiing, hiking, snowmobiling, and other activities, are increasing the number of users on public lands throughout Alaska. Recreation and tourism occur statewide and may involve land-based activities as well as activities on lakes, rivers, and oceans in the planning area. Tourism is the second-largest private sector employer, and accounts for one in eight Alaskan jobs. The most recent available data indicate that the tourism industry generates more than 43,300 jobs, $125.6 million in State taxes and revenues, $2.2 billion in visitor spending, and $1.5 billion in labor income from a total of approximately 2.24 million visitors (ADCCED 2018). The Economic Impact of Alaska's Visitor Industry 2017 (November 2018) can be found here: https://www.commerce.alaska.gov/web/ded/dev/tourismdevelopment/tourismresearch.aspx Increased recreation on public lands in the planning area will create impacts related to increased user access and disturbance. Other activities on public lands, especially development, will also affect recreational users. For example, disturbances like changes to access opportunities, noise levels, and visual resources related to development are especially likely to affect backcountry recreational users.

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Access	Alaska Road Commission, Hickle Highway, and various other roads/trails	Past	Distributed across the planning area	The Alaska Road Commission trail network, Hickel Highway, and various other historic roads and trails left a network of trails that largely remain as structural and visible elements on the landscape. Many have been asserted by the State as RS-2477 ROWs. They affect wildlife habitat, in both positive (e.g., edge effects and structural diversity) and negative (e.g., fragmentation) ways. They affect human use patterns by encouraging and facilitating access in areas that would otherwise be less accessible.
Development	Small-scale placer mining activities	Past, present, future — Ongoing	Concentrated in specific portions of the planning area: Koyukuk Mining District, Livengood Mining District, and Fairbanks area	Small-scale placer mining has been distributed in the planning area for over a century. Impacts include habitat fragmentation by access and clearing, reduced stream function level, reduced water quality, impacts on fish habitat, increased erosion potential, thawing of permafrost, and riparian vegetation alteration.
Development	Gravel extraction in the Dalton Utility Corridor	Past, present, future — Ongoing	Dalton Utility Corridor	Extraction consists of around 40 currently active pits; however, the number of pits that has been opened over time is uncertain. In addition to use for Dalton Highway construction and maintenance and TAPS construction and maintenance, material has been taken for use on the North Slope and for constructing offshore islands. Impacts include vegetation removal, permafrost thawing, increased erosion potential, fragmentation of habitat, restrictions to access, and the spread of invasive plants.
Development	Dalton Highway maintenance	Past, present, future — Ongoing	Dalton Utility Corridor	Development on the Dalton Highway includes maintenance and reconstruction as described above. Various impacts include the spread of invasive weeds through grading and plowing north, stream function alterations at bridge crossings and river training sites, transmission of dust, alteration of permafrost and the water table along the highway, and associated impacts on vegetation related to the accumulation of calcium chloride and fuel spills.
Research Activities	Toolik Field Station, plus distributed research along the Dalton Highway; some authorized, some not authorized	Past, present, future — Ongoing	Statewide	Research activities occur throughout the state and the planning area. Sites like the Toolik Field Station facilitate research activity by providing services from lodging to technical support. Research activities cause impacts related to changes in access, use of equipment like batteries and fuel, creation and use of facilities, and noise. These impacts vary based on the nature of the research activity conducted.

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Wildland Fire Suppression Activities on Other Land	Wildland fire suppression effects	Since European settlement	Interior Alaska	Interior Alaska's mosaic of vegetation is created by a disturbance regime. The most prominent disturbance is periodic, large, severe wildland fires. Fire suppression near populated areas and other infrastructure leads to a change in vegetation type over time with a tendency toward older spruce stands. In older spruce stands, fire suppression efforts become more difficult over time, and the risk of a large, destructive fire in areas of suppression increases over time. Further information is available at: https://doi.org/10.1007/s10021-006-0095-0
Air Pollution	Increased potential for air pollution as caused by increased development	N/A	Statewide and beyond	Deposition (wet and dry) occurs throughout Alaska from industrial activities that occur both in the state and overseas, particularly China and Siberia. Data are available from an air quality monitoring stations throughout Alaska.
Wildland Fire Burn—Air Quality Issues from Wildland Fires	Effects of wildland fires burning on air	Snow-free months	Interior Alaska/planning area—effect is global	In large portions of the planning area, wildland fires burn fairly naturally either as a cost-cutting measure or to allow for ecosystems to function where no threat to human infrastructure exists. Smoke from the fires adds to greenhouse gasses (GHGs) and black carbon, which effect polar ice melt and global climate change. Smoke is also a human health issue when it is dense.
Vegetation	Invasive Plant Management for the Dalton Management Area	The NEPA process was initiated in January 2024. Plan implementation is anticipated for 2025.	Central Yukon planning area	The Central Yukon Field Office is updating its Weed Management Plan to include all BLM managed lands within the field office boundary. The plan includes options to manage nonnative invasive species with physical and herbicidal methods, including an updated list of herbicide active ingredients and updates to Standard Operating Procedures.
Volcanic Activity	Volcanic air and soil effects	Episodic	Alaska and global	Volcanic activity, particularly in the Ring of Fire, including the notable Mount Redoubt, adds to air quality issues associated with wildland fires and development in the planning area. Depositions from volcanic episodes are also important for soil development. Further information is available at: https://avo.alaska.edu/volcanoes/hazards.php https://www.sciencedirect.com/science/article/abs/pii/S0377027312003010?via%3Dihub

Type of Project, Plan, or Action	Name	Timing/Status	Location and Size	Description
Recreation	Backcountry Tour Guide programmatic EA	2024-2025	Dalton Highway corridor (inner and outer), north of bridge over the South Fork Koyukuk River	The purpose of the action is to respond to a growing number of requests to administer SRPs for backcountry guided backpacking, guided skiing, and guided mushing trips within the Dalton Highway Recreation Management Area, Central Yukon Field Office, while ensuring protection of resources by requiring use of legal public or private access routes, respecting historical and cultural artifacts, limiting group sizes and trip duration, and specifying good stewardship of public lands, such as Leave No Trace ethics.
Recreation	Marion Creek Trail	2025-2026	Marion Creek drainage, near Coldfoot	Construction of a 1.7 mile linear trail for hikers that would connect the BLM Marion Creek Developed Campground and the Marion Creek Falls. The trail, referred to as the Marion Creek Trail, would provide low elevation recreation opportunities between the campground and the falls. The proposed trail crosses both BLM and State of Alaska managed lands. The Alaska Department of Natural Resources has authorized a Public Easement (ADL 421621) for sections of the trail crossing lands managed by their office.
Recreation	Special Recreation Permit Commercial Guided Sheep Hunting programmatic EA	2025-2026	Game Management Unit 24 (Guide Use Area 24-3); Game Management Unit 25 (GUAs 25-02, 25-03)	Issue Special Recreation Permits (SRP) that allow for commercial hunting guides to provide guided sheep hunting using archery hunting methods within the five mile corridor, and rifle hunting outside of the five mile corridor, on BLM lands.

1

M.4.3 Actions Not Included in the Cumulative Analysis

Developments for which a solid proposal has not been submitted or that seem unlikely to occur within the foreseeable future are considered speculative. These may include projects that are discussed in the public arena but are not currently authorized by law or for which there is no current proposal before an authorizing agency. Speculative developments are not considered reasonably foreseeable and are not evaluated as part of the cumulative impacts analysis.

M.5 Resources Dismissed from the Detailed Environmental Consequences Analysis

M.5.1 Energy and Minerals

A quantitative impact assessment of non-energy solid leasable minerals was considered nonessential and eliminated from detailed analysis. No development of non-energy solid leasable minerals is anticipated to occur in the planning area. As discussed in the RFD scenario (**Appendix N**), no significant deposits of non-energy solid leasable minerals have been identified within reasonable distance from roads or other transportation corridors. Global demand for non-energy solid leasable minerals is well supplied by sources outside the planning area, and local market demand is very low to nonexistent. Non-energy solid leasable minerals were not brought up during the public scoping process.

M.5.2 Renewable Energy

There are no existing renewable energy sites on BLM-managed lands in the planning area. The potential for commercial solar operations in the planning area is very low, as the solar resource criteria are not met anywhere in the planning area. Wind energy potential has been classed as fair to poor, and most lands in the planning area do not meet the criteria for proximity to transmission lines or roads. Biomass fuels may potentially be present as wood from wildland fire scars. Additional information is available in **Section 2.2.5**, Renewable Energy, at: https://eplanning.blm.gov/epl-front-office/projects/lup/35315/72940/80089/CYRMP_AMS_all_April_2016_Final.pdf.

Renewable energy was removed from detailed analysis for the CYRMP/EIS due to the low potential for future utility-scale solar or wind energy development per the RFD scenario (**Appendix N**). The Eva Creek Wind Project outside the Central Yukon Field Office (FO) boundary shows there are sufficient wind resources to support a utility-scale wind energy development; however, communities in the planning area likely do not have the resources to support the high cost of transporting and installing wind turbines, or the projected energy demand to justify development. While small photovoltaic solar energy technology is minimally used in the planning area to supplement power generation, the RFD scenario suggests the potential for utility-scale solar development to be low. With the low resource potential, coupled with the low overall demand for power due to a limited population, it is unlikely a developer would seek a solar or wind ROW in the planning area. Given this information, it is unlikely the impacts from renewable energy, if any, would differ across the proposed alternatives.

M.5.3 Wilderness Study Area (WSA)

The Central Arctic Management Area (CAMA) WSA will continue to be managed consistent with BLM Manual 6330, Management of BLM Wilderness Study Areas, and the Alaska National Interest Lands Conservation Act of 1980 (ANILCA) until Congress determines otherwise. Additionally, the WSA is part of the BLM's National Landscape Conservation System. Additional information is available in **Section 2.3.2**, Central Arctic Wilderness Study Area, at: https://eplanning.blm.gov/epl-front-office/projects/lup/35315/72940/80089/CYRMP_AMS_all_April_2016_Final.pdf.

A quantitative resource assessment of WSAs was considered nonessential and eliminated from detailed analysis. The BLM's management policy for WSAs, except in certain cases, is to continue resource uses on lands designated as WSAs in a manner that does not impair the area's suitability for preservation as wilderness. The CAMA WSA is and would remain closed to ROWs, mineral leasing, motorized or mechanical transport use off existing ways, and other uses that would negatively affect its suitability for wilderness designation under all alternatives. Because wilderness characteristics were found within the defined boundaries of the WSA, the existence of these activities outside the WSA does not affect suitability for preservation as wilderness.

In addition, due to the remoteness of the WSA, there is not a reasonably foreseeable likelihood of any activities (e.g., fluid mineral development) that would impair the WSA's wilderness characteristics. This is because there is very low to low potential for fluid mineral development (see **Section 3.3.3**, Energy and Minerals), and the WSA is remote and largely inaccessible. WSA lands would retain their wilderness characteristics due to remoteness, lack of access, and limited demand for ground-disturbing activities.

M.5.4 Back Country Byway

There are no back country byways in the planning area. The Dalton Highway was designated a State Scenic Byway in 1998. Administered by the DOT&PF, the State Scenic Byways Program recognizes routes that provide access to the state's significant scenic, cultural, and recreational resources. The Dalton Highway Scenic Byway Corridor Partnership Plan was approved in 2010. Additional information is available in **Section 2.3.4**, Backcountry or Scenic Byways, at: https://eplanning.blm.gov/epl-front-office/projects/lup/35315/72940/80089/CYRMP_AMS_all_April_2016_Final.pdf.

BLM back country byways may be designated in the future in the planning area, as deemed appropriate, with site-specific analysis. Because the DOT&PF administers the Dalton Highway State Scenic Byway, it is not subject to BLM management actions; as such, impacts associated with this special designation are not analyzed. Scenic quality and areas of visual sensitivity (such as the Dalton Highway State Scenic Byway) are discussed in **Section 3.2.11**, Visual Resources.

M.6 Resource Indicators and Assumptions

For organizational purposes, **Chapter 3** is divided into sections by subject area (such as water resources, terrestrial mammals, and recreation). Though they are described and analyzed in discrete sections, these subjects are dynamic and interrelated. A change in one resource can have cascading or synergistic impacts on other resources. For example, water quality affects fish populations, which in turn influence subsistence harvests, which can have implications for other human outcomes such as health and sociocultural systems. As a result, there is some overlap among the resource sections in **Chapter 3**, and the impacts described in one section may depend on the analysis from another section.

During the writing process, resource specialists shared data and discussed interrelated aspects of the analyses to better capture the interrelated nature of environmental resources. The indicators, analysis areas, and assumptions used for each resource analysis are detailed below.

M.6.1 Air Quality and Climate

Air and Climate

Resource-specific Legal and Regulatory Constraints
Air • Clean Air Act of 1990, as amended (42 United States Code [U.S.C.] 7418) • Pollution Prevention Act of 1990 (42 U.S.C. 13101–13109) • Executive Order (EO) 11738: Providing for administration of the Clean Air Act and the Federal Water Pollution Control Act with respect to Federal contracts, grants, or loans (September 10, 1973) • EO 12088, Federal Compliance with Pollution Control Standards, October 13, 1978 (43 *FR* 47707) • 29 CFR 1910: Occupational Safety and Health Standards, special provisions for air contaminants • 40 CFR 50: Protection of the Environment: National Primary and Secondary Ambient Air Quality Standards • 40 CFR 61: National Emission Standards for Hazardous Air Pollutants • 43 CFR 3809: Surface Management Regulations **Climate Change/GHG** • Under various court decisions, climate change must be addressed in NEPA documents. • New highway vehicles must meet fuel mileage standards (40 CFR 86, 86.1818-12, and 86.1818-14) to minimize GHG emissions. • Certain stationary sources of GHGs (generally over 25,000 tons per year of carbon dioxide equivalent) must meet mandatory annual reporting requirements of 40 CFR 98.

Resource Scoping Issues
Air • Development effects on air quality and deposition of fine particulate matter, particularly in mineral extraction areas • The RMP/EIS should provide a detailed discussion of ambient air conditions, National Ambient Air Quality Standards (NAAQS), and criteria pollutant non-attainment areas in the planning area. The analysis should estimate emissions of criteria pollutants and discuss the time frame for release of these emissions over the lifespan of the RMP. Also, the document should include analyses of the potential impacts on air quality (including cumulative and indirect impacts) from RMP projects, especially those involving construction activities. The RMP/EIS should specify emissions sources and quantify these emissions. Such an evaluation is necessary to assure compliance with state and federal air quality regulations, and to disclose the potential impacts from temporary or cumulative degradation of air quality. • Impacts on air quality from oil and gas activities should be analyzed per the June 2011 interagency memorandum of understanding for air quality analyses and mitigation for federal oil and gas decisions. **Climate Change/GHG** • Climate change and its effects on the lands and resources are of great concern to many Alaskans. Many of the comments overlapped with other categories, reflecting the overarching nature of climate change. Many comments noted that climate change is not an issue and should not be given too much weight in the RMP/EIS. Other comments indicated that climate change is an issue, and the RMP/EIS should fully address it. Comments recommended that the RMP incorporate adaptive management to address the changing environment and mitigate RMP contributions to climate change. • Some comments noted that the RMP should prioritize existing subsistence use over new incompatible uses to minimize impacts from climate change. • The RMP should fully analyze the impacts of climate change even though some of these impacts are uncertain. Comments recommended that the BLM incorporate the best available science in addressing climate change impacts. • The RMP should quantify and disclose anticipated GHG emissions from proposed planning decisions and discuss mitigation measures to reduce such emissions. • Internally generated scoping questions related to climate change include:

Resource Scoping Issues
○ How should the RMP address the impacts of climate change? ○ What land management strategies could be developed to reduce impacts and allow for adaptive management to respond to changes over time?

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Surface disturbance caused by development and facilities • Construction sites and sites with surface disturbance • Unpaved roads	• Particulate emissions	• NAAQS and Alaska Ambient Air Quality Standards (AAAQS) (qualitative analysis of how management actions would be likely to affect concentrations in the planning area) • Change in acres of disturbance	Discuss the effects of fugitive dust on air quality in the planning area with special attention on the Dalton Highway and Ambler Road
Development and operation of gravel pits (mineral materials)	• Particulate emissions • Fuel combustion-related emissions (criteria, hazardous, and GHG)	• NAAQS and AAAQS (qualitative analysis of how management actions would be likely to affect concentrations in the planning area) • Change in acres of disturbance	Discuss the effects of emissions in the planning area For GHG, discuss the potential change in emissions compared with state, national, and global scales
Exploration, development, and extraction of locatable mineral resources	• Particulate emissions • Fuel combustion-related emissions (criteria, hazardous, and GHG)	• NAAQS and AAAQS (qualitative analysis of how management actions would be likely to affect concentrations in the planning area) • Change in acres of allowable development in high potential areas	Discuss the effects of emissions for development in the planning area For GHG, discuss the potential change in emissions compared with state, national, and global scales
Exploration, development, and extraction of fluid mineral resources	• Particulate emissions • Fuel combustion-related emissions (criteria, hazardous, and GHG)	• NAAQS and AAAQS (qualitative analysis of how management actions would be likely to affect concentrations in the planning area) • Change in acres of allowable development in high potential areas	Qualitative discussion about the types of impacts. Reference that there is little development projected over the life of the RMP based on the RFD scenario

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Prescribed fire	• Particulate emissions • GHG emissions	• NAAQS and AAAQS (qualitative comparison)	Discuss the effects of prescribed burns on air quality and on non-attainment in the Fairbanks area For GHG, discuss the potential change in emissions compared with state, national, and global scales
ROW designations	• Indirectly affects the potential for road and utility development	• Acres open or closed	Discuss how ROW designations and their locations may affect the potential for emissions-generating actions and the effect on local air quality

Impact Analysis Area
DIRECT/INDIRECT CYRMP planning area, particularly areas adjacent to unpaved roads and areas with surface-disturbing activities in the CYRMP planning area **CUMULATIVE** The CYRMP planning area, plus mineral activity outside the planning area such as the North Slope, including federally managed lands in the National Petroleum Reserve and the Coastal Plain area of the North Slope and on State lands between these two areas

Analysis Assumptions
• Since the existing plans were completed, development pressures related to access and locatable mining activity have increased considerably, as has the demand for sand and gravel. • The Ambler Road and natural gas pipeline will be built. • Timber, recreation, and off-highway vehicle (OHV) use are not anticipated to occur at a large scale in the planning area and will not be included in the analysis. • Based on the RFD scenario, there is low potential for wind, solar, or geothermal energy development; no potential for non-energy leasable minerals development; and no projected coal mining over the life of the RMP. • Given the high quality of air and the low potential for emission-generating activity in the overall planning area, a qualitative analysis will be performed. The two activities with the highest potential for emissions would be sand and gravel pits and locatable mining activity. Data on the location and scale of such activities are not available at this planning-level stage to analyze quantitatively. A quantitative NEPA analysis will be performed as specific development plans are submitted to the BLM for approval. • Climate-induced changes in benchmarks may reduce the degree of impact that authorized actions can cause before reaching adaptive management thresholds.

GIS Maps and/or Calculations
• No maps • Acres of high potential open to locatable minerals and fluid minerals • Acres open to mineral materials • Acres open to ROWs and corridors

M.6.2 Soil Resources

Resource-specific Legal and Regulatory Constraints
• Classification and Multiple Use Act of 1964 (78 Statute 986, U.S.C. 1411–18), 43 CFR 1725.3-3(h) as of October 1, 1981 • Soil Conservation and Domestic Allotment Act of 1935, as amended, April 27, 1935 (Public Law 74-46) • Soil and Water Resource Conservation Act of November 18, 1977 (16 U.S.C. 2001) • Soil Information Assistance for Community Planning and Resource Development Act of 1966, September 7, 1966 (42 U.S.C. 3271 et seq.) • Pollution Prevention Act of 1990 (42 U.S.C. 13101–13109) • Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et seq.) • Watershed Protection and Flood Control Act of 1954, as amended, August 4, 1954 • EO 11988, Floodplain Management, May 24, 1977 (42 *FR* 26951) • EO 11989, Off-road Vehicles, May 24, 1977 (42 *FR* 26959) • 40 CFR 1500–1508: Council on Environmental Quality — Regulations for Implementing NEPA

Resource Scoping Issues
• Locatable mining impacts on soils • OHV use and their impact on soils • Salable mineral extraction and its impact on soils • Location of ROWs and their impacts on soils • Appropriate mitigation should be used to reduce erosion while still allowing the motorized public to use the area. • Are any soils in the planning area in need of special protection? • What restrictions or best management practices (BMPs) should the BLM require for surface-disturbing activities to protect soils? • Several comments noted that the RMP should recognize the increased rate of thawing permafrost related to climate change; develop criteria for the design, engineering, and operation of infrastructure on permafrost; and develop a monitoring plan.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Locatable minerals	• Direct surface disturbance to soils • Topsoil removal • Damage and/or loss of the permafrost layer and the resultant changes in soil stability • Changes to soil composition	Acres of the planning area open to locatable minerals split by low, medium, and high potential by the soil resource indicators: • Steep slopes: greater than 35 percent • Thaw-sensitive permafrost: permafrost soils with temperatures near 32 degrees Fahrenheit during the growing season • Wetland soils	Describe the potential impacts (placer mining) of surface-disturbing activities on soils with an emphasis on sensitive soil types and areas with permafrost. Identify those sensitive/steep soils in areas of high potential. Discuss potential mining expansion due to recommendation for revoking withdrawals across the alternatives. Discuss BMPs that would minimize these effects.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Fluid leasable minerals	• Direct surface disturbance to soils • Topsoil removal • Damage and/or loss of the permafrost layer and the resultant changes in soil stability • Changes to soil composition	Acres of the planning area open to fluid leasable minerals split by low, medium, and high potential by the soil resource indicators: • Steep slopes: greater than 35 percent, • Thaw-sensitive permafrost • Wetland soils	Describe the potential impacts of oil and gas development's surface-disturbing activities on soils with an emphasis on sensitive soil types and areas with permafrost. Identify those sensitive/steep soils in areas of high potential.
Transportation management—primarily OHV use	• Direct surface disturbance to soils • Soil compression and alteration resulting in soil exposure and thermokarst activity	Acres of the planning area open and closed to OHV use in the key soil resource indicators: • Steep slopes: greater than 35 percent • Thaw-sensitive permafrost • Wetland soils • Sensitive soils in high-value watersheds	Describe the potential effects on soils with an emphasis on sensitive soil types, steep soils, and areas with permafrost. Include a discussion of OHV travel for authorized actions (placer mining, utilities, and more) outside the travel management plan.
ROWs New and existing gravel roads, culverts, and bridges	• Alteration and loss of soils • Damage and/or loss of the permafrost layer and resultant changes in soil stability • Changes to soil composition	Acres of the planning area subject to ROW exclusion and avoidance split by soil resource indicators: • Steep slopes: greater than 35 percent • Thaw-sensitive permafrost • Wetland soils • Sensitive soils in high-value watersheds Identify likely utility corridors and overlay on the key soil resource indicators: • Steep slopes: greater than 35 percent • Thaw-sensitive permafrost • Wetland soils • Sensitive soils in high-value watersheds	Include a table comparing ROW exclusion and avoidance areas with the soil resource indicators. Describe how and where the ROW exclusion and avoidance designations would help protect soil resources. Describe how construction and maintenance of gravel roads affect soil resources in the planning area. Describe how sensitive soil types in high-value watersheds and steep slope areas would be affected across alternatives.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Potential spills from transportation of hazardous waste (oil, diesel, and natural gas) Potential spills from pipelines	• Alteration and loss of soils if a spill occurs and enters the soil	Identify areas with high traffic volume and the potential for oil spills, primarily the Dalton Utility Corridor and TAPS. In cumulative, add discussion of potential spills along new pipelines: Alaska Stand Alone Pipeline Project and AKLNG.	Describe the potential effects on soils by spills of a variety of types, sizes, and spill locations.
Mineral materials	• Alteration and loss of soils • Damage and/or loss of the permafrost layer and the resultant changes in soil stability	Acres of the Dalton Utility Corridor and identified utility corridors within the soil resource indicators: • Steep slopes: greater than 35 percent • Thaw-sensitive permafrost • Wetland soils • Sensitive soils in high-value watersheds	Describe how gravel mining involves the loss and alteration of soil types. Identify BMPs that would minimize these effects. Identify the areas likely for salable mineral extraction and how those affect the soil resource indicators: • Sensitive soils • Greater than 35 percent slopes • Sensitive soils in high-value watersheds
Special designation areas (Areas of Critical Environmental Concern [ACECs], Wild and Scenic Rivers [WSRs], and WSAs)	• Protection of soil resources by restrictions associated with special designation areas	Acres of special designations that intersect with soil resource indicators: • Steep slopes: greater than 35 percent • Thaw-sensitive permafrost • Wetland soils • Sensitive soils in high-value watersheds	Include a table of special designations overlapping the important soil resource indicators. Identify which specially designated areas protect soil resources that would otherwise be endangered by development, recreation, mining, or other surface-disturbing activities.
Forestry	• Alteration and loss of soils • Damage and/or loss of the permafrost layer and the resultant changes in soil stability	Acres of the planning area open to commercial forestry that intersect with sensitive soils in high-value watersheds	Discuss areas open to commercial forestry on sensitive soils in high-value watersheds, as they could disrupt soils and lead to sedimentation of sensitive waterways.

Impact Analysis Area
DIRECT/INDIRECT BLM-managed lands in the planning area **CUMULATIVE** All lands in the planning area

Analysis Assumptions
• Concentrated, open OHV use results in compaction, accelerated erosion, reduced ground cover, infiltration, nutrient cycling, and organic matter deposition (Bainbridge 2007), particularly in areas of highly erodible soils. OHV use on slopes greater than 25 percent would have a severe risk of accelerated water erosion (NRCS 1998). All surface-disturbing activities include mitigation, standard operating procedures, and BMPs to reduce effects on soil resources; these would be addressed at the site-specific project level. • It is impossible to predict when or where the surface disturbance would occur in the planning area; therefore, unless the surface use is not allowed, the assumption is that sensitive soils would be disturbed.

GIS Maps and/or Calculations

• One figure with sensitive soils (minus steep slopes) and 35 percent slopes as separate polygons
• GIS data calculations
  ○ Locatable minerals—Use the potential for locatable minerals (high, medium, and low) and intersect with the following layers:
  ▪ Greater than 35 percent slopes
  ▪ Thaw-sensitive permafrost
  ▪ Wetland soils
  ○ Fluid leasable minerals—Use the potential for fluid leasable minerals (high, medium, and low) and intersect with the following layers:
  ▪ Greater than 35 percent slopes
  ▪ Thaw-sensitive permafrost
  ▪ Wetland soils
  ○ OHV travel—OHV management classifications intersected with the following layers:
  ▪ Greater than 35 percent slopes
  ▪ Thaw-sensitive permafrost
  ▪ Wetland soils
  ▪ Sensitive soils in high-value watersheds
  ○ ROWs—Intersect ROW exclusion and avoidance areas with the following layers:
  ▪ Greater than 35 percent slopes
  ▪ Thaw-sensitive permafrost
  ▪ Wetland soils
  ▪ Sensitive soils in high-value watersheds
  ○ Utility corridors—Intersect utility corridors with the following layers:
  ▪ Greater than 35 percent slopes
  ▪ Thaw-sensitive permafrost
  ▪ Wetland soils
  ▪ Sensitive soils in high-value watersheds
  ○ Special designations—Intersect potential ACECs, WSAs, and WSRs with the following layers:
  ▪ Greater than 35 percent slopes
  ▪ Thaw-sensitive permafrost
  ▪ Wetland soils
  ▪ Sensitive soils in high-value watersheds
  ○ Forestry—Acres of the planning area open to commercial forestry that intersect sensitive soils in high-value watersheds

M.6.3 Water Resources

Resource-specific Legal and Regulatory Constraints
• Federal Water Pollution Control Act (Clean Water Act) (33 U.S.C. 1151, 1251, 1254, 1323, 1324, 1329, 1342, 1344), as amended • State of Alaska water quality standards • Geothermal Steam Act of 1970, as amended (30 U.S.C. 1001) • Safe Drinking Water Act Amendments of 1977 (42 U.S.C. 210) • Pollution Prevention Act of 1990 (42 U.S.C. 13101–13109) • Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et seq.) • Water Quality Act of 1987, as amended from the Federal Water Pollution Control Act of 1977 (33 U.S.C. 1271 et seq.) • EO 11644, Use of Off-road Vehicles on Public Lands, February 8, 1972 (37 *FR* 2877) • EO 11988, Floodplain Management, May 24, 1977 (42 *FR* 26951) • EO 11989, Off-road Vehicles, May 24, 1977 (42 *FR* 26959)

Resource Scoping Issues
• Mining affecting streams, riparian areas, and water quality and quantity • Hot springs protection or development • OHV impacts on water quality and riparian areas • ROW location and impacts in relation to water quality • Impacts on riparian vegetation and possible changes to bank stability and water quality • Comments recommended collection of baseline data and monitoring to allow for adaptive management that would protect water quality given decisions in the RMP and possible changes to the hydrologic regime due to climate change. • Are any watersheds in the planning area in need of special protection? • What actions should the BLM take to make sure that state and federal water quality requirements are met (including consideration of both point and non-point sources of pollution)? • Are there any watersheds that are currently not meeting desired conditions?

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Locatable minerals	• Increased sediment input and turbidity resulting in degraded water quality • Alteration and loss of floodplain function • Changes in natural drainage patterns (e.g., water impoundment)	Acres of the planning area open to locatable minerals split by low, medium, and high potential intersected with the water resource indicators: • 100-year floodplains • High-value watersheds • One-fourth-mile buffer of lentic areas • 160-acre hot spring buffers • Watershed Condition Model for cumulative impacts	Describe the potential impacts of placer mining activities on floodplains, riparian vegetation and its function to maintain water quality and bank stability, and watersheds. Identify those areas with high mineral potential and focus the discussion on those areas. Discuss potential mining expansion due to recommendation for revoking withdrawals across the alternatives. Identify BMPs that would minimize these effects.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Fluid leasable minerals	• Increased sediment input and turbidity resulting in degraded water quality • Alteration and loss of floodplain function • Changes in natural drainage patterns (e.g., water impoundment)	Acres of the planning area open to fluid leasable minerals split by low, medium, and high potential intersected with the water resource indicators: • 100-year floodplains • High-value watersheds • One-fourth-mile buffer of lentic areas • 160-acre hot spring buffers • Watershed Condition Model for cumulative impacts	Describe the potential impacts of oil and gas development on floodplains, riparian vegetation and its function to maintain water quality and bank stability, and watersheds. Identify those areas with high oil and gas potential and focus the discussion on those areas.
Transportation management—primarily OHV use	• Alteration of floodplains and watersheds • Increased sediment input and turbidity resulting in degraded water quality • Changes in natural drainage patterns (e.g., water impoundment)	Acres of the planning area open and closed to OHV use in the key water resource indicators: • 100-year floodplains • High-value watersheds • One-fourth-mile buffer of lentic areas • 160-acre hot spring buffers • Watershed Condition Model for cumulative impacts	Include a table comparing acres open and closed to OHV use for the water resource indicators. Highlight areas where OHV use would be concentrated (Dalton Highway). Note the potential effects of off-road traffic on sedimentation rates, the loss of riparian vegetation, and other water quality issues. Include a discussion of OHV travel for authorized actions (such as placer mining and utilities) outside of the travel management plan.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up

ROWs
 	
New and existing gravel roads, culverts, and bridges
	• Indirect impacts on water quality from:
	  ○ Gravel dust and gravel spray
	  ○ Gravel placement, compaction, and grading
	• Changes in natural drainage patterns (e.g., water impoundment)
	• Protections provided to areas from ROW exclusion and avoidance areas
		Acres of the planning area subject to ROW exclusion and avoidance split by water resource indicators:
		• 100-year floodplains
		• 100-year floodplains in high-value watersheds
		• High-value watersheds
		• One-fourth-mile buffer of lentic areas
		• 160-acre hot spring buffers
		• Watershed Condition Model for cumulative impacts
		
		Identify likely utility corridors and overlay on the key water resource indicators:
		• 100-year floodplains
		• High-value watersheds
		• One-fourth-mile buffer of lentic areas
		• 160-acre hot spring buffer
		• Watershed Condition Model and its three categories for cumulative impacts
			Include a table comparing ROW exclusion and avoidance areas with the water resource indicators. Describe how and where the ROW exclusion and avoidance designations would help protect water resources.
			
			Identify key utility corridors and the potential impacts on water resources using the water resource indicators to identify potential impacts on water quality and quantity and direct impacts on streams. Describe how construction and maintenance of gravel roads affects water resources, including riparian vegetation in the planning area.

Potential spills from transportation of hazardous waste (oil, diesel, and natural gas) Potential spills from pipelines	• Decrease in water quality	Identify areas with high traffic volume and the potential for oil spills, primarily the Dalton Highway and TAPS. In the cumulative analysis, add discussion of potential new pipelines: Alaska Stand Alone Pipeline Project and AKLNG.	Generally, describe potential effects on water quality and the likely locations for a spill.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Mineral materials	• Increased sediment input and turbidity resulting in degraded water quality • Alteration and loss of floodplain function • Changes in natural drainage patterns (e.g., water impoundment)	Acres of the Dalton Utility Corridor and identified utility corridors within the water resource indicators: • 100-year floodplains • 100-year floodplains in high-value watersheds • High-value watersheds • One-fourth-mile buffer of lentic areas • 160-acre hot spring buffers • Watershed Condition Model for cumulative impacts	Generally, describe the impacts of mineral materials sites on water resources, including riparian vegetation, and the large potential demand for these resources due to foreseeable development in the planning area. Identify the areas likely for salable mineral extraction and how those affect the water resource indicators.
Special designation areas (ACECs, WSRs, and WSAs)	• Protection of waterbodies • Indirect protection to water quality	Acres of special designations intersected with: • 100-year floodplains • High-value watersheds • One-fourth-mile buffer of lentic areas • 160-acre hot spring buffers • Watershed Condition Model for cumulative impacts	Include a table of special designations overlapping the important water resource indicators. Identify which specially designated areas protect streams, riparian vegetation, or water quality that would otherwise be endangered by development, recreation, mining, and other surface-disturbing activities.
Hot springs	• Surface disturbance • Indirect impact on the hot spring location	Acres of 160-acre hot spring buffers open to locatable minerals and OHV use for Alternative D	Note: When addressing potential impacts on hot springs, note that the planning area has both developed (Melozitna, Tolovana, and Hutlinana) and undeveloped (Ray River, Kilo, Ishtalitna, Kanuti, and McQuesten) hot springs.

Impact Analysis Area
DIRECT/INDIRECT BLM-managed lands in the planning area **CUMULATIVE** Use 8-digit hydrologic unit code watersheds to capture all waterbodies flowing into and out of the planning area

Analysis Assumptions
• Water quality, quantity, and stream stability data are not available for the majority of waterbodies in the planning area. This makes interpreting trends difficult, if not impossible; however, the majority of streams and lakes in the planning area are undisturbed and have no anthropogenic impacts on water quantity, water quality, and stream stability, so it is assumed these waterbodies are trending in a positive direction. • The degree of effect attributed to any one disturbance or series of disturbances would be influenced by several factors, including proximity to drainages and groundwater wells, location in the watershed, time and degree of disturbance, reclamation potential of the affected area, vegetation, precipitation, and mitigating actions applied to the disturbance. • Riparian conditions and water quality are directly related, and improvements to riparian and wetland conditions will tend to improve water quality; conversely, detrimental effects on the riparian and wetlands conditions could degrade water quality.

GIS Maps and/or Calculations

• High-value watersheds figure
• Watershed condition figure
• 100-year floodplains, lentic areas, and hot springs (8) figure
• GIS data calculations
  o Locatable minerals—Use the potential for locatable minerals (high, medium, and low) and intersect with the following layers:
  ▪ 100-year floodplains
  ▪ 100-year floodplains in high-value watersheds
  ▪ High-value watersheds
  ▪ One-fourth-mile buffer of lentic areas
  ▪ 160-acre hot spring buffers
  ▪ Watershed Condition Model and its three categories
  o Fluid leasable minerals—Use the potential for fluid leasable minerals (high, medium, and low) and intersect with the following layers:
  ▪ 100-year floodplains
  ▪ 100-year floodplains in high-value watersheds
  ▪ High-value watersheds
  ▪ One-fourth-mile buffer of lentic areas
  ▪ 160-acre hot spring buffers
  ▪ Watershed Condition Model and its three categories
  o OHV travel—OHV management classifications intersected with the following layers:
  ▪ 100-year floodplains
  ▪ High-value watersheds
  ▪ One-fourth-mile buffer of lentic areas
  ▪ 160-acre hot spring buffers
  ▪ Watershed Condition Model and its three categories
  o 160-acre hot spring buffers
  o ROWs—Intersect ROW exclusion and avoidance areas with the following layers:
  ▪ 100-year floodplains
  ▪ High-value watersheds
  ▪ One-fourth-mile buffer of lentic areas
  ▪ 160-acre hot spring buffers

GIS Maps and/or Calculations
▪ Watershed Condition Model and its three categories o Utility corridors—Intersect utility corridors with the following layers: ▪ 100-year floodplains ▪ High-value watersheds ▪ One-fourth-mile buffer of lentic areas ▪ 160-acre hot spring buffers o Watershed Condition Model and its three categories Special designations—Intersect potential ACECs, WSAs, and WSRs with the following layers: ▪ 100-year floodplains ▪ High-value watersheds ▪ One-fourth-mile buffer of lentic areas ▪ 160-acre hot spring buffers ▪ Watershed Condition Model and its three categories

M.6.4 Vegetation Communities

Resource-specific Legal and Regulatory Constraints
● CYRMP—Activities should be conducted in a manner that minimizes impacts on vegetation. ● Federal guidance on invasive species ● Federal and BLM guidance on special status plant species

Resource Scoping Issues
● Special consideration may be warranted for plant communities of limited extent, including lichen-rich communities and vegetation typical of pingos, steep bluffs, and alpine areas. These areas may be important for some wildlife species, and they may provide habitat for special status plants. ● An important planning concern is the potential for management actions resulting in the introduction and spread of nonnative and invasive plant species (NNIS).

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Commercial timber harvest	Loss or fragmentation of forested vegetation types	Acres open or closed to commercial timber harvest	Timber harvest was not included in the RFD scenario for the planning area, so minimal discussion will be needed.
Locatable minerals	Loss of vegetation or changes to plant communities due to exploration or mining activities	Acres open or closed to locatable minerals	Compare acres open with locatable minerals in each alternative.
Mineral materials	Loss of vegetation or changes to plant communities due to exploration or mining activities	Acres open or closed to mineral materials	Compare acres open to mineral materials in each alternative.
Fluid minerals ● Open subject to no surface occupancy (NSO) ● Open to controlled surface use	Loss of vegetation or changes to plant communities due to exploration or mining activities, or potential spills	Acres open or closed to fluid minerals (NSO or controlled surface use)	The RFD scenario indicated that oil and gas development is not anticipated on BLM-managed lands. There is no need to discuss or compare alternatives.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Non-energy solid mineral leasing	Loss of vegetation or changes to plant communities due to exploration or mining activities	Acres open or closed to non-energy solid minerals	The RFD scenario indicated that mining of non-energy solid minerals is not anticipated on BLM-managed lands. There is no need to discuss or compare alternatives.
ACEC or Research Natural Area (RNA) designation	Protection of plant communities due to restricted uses	Acres of ACECs or RNAs, or both	Compare acres of ACECs and RNAs in each alternative.
WSR designation	No impacts expected on vegetation communities		
Lands with wilderness characteristics (LWC)	Protection of plant communities due to restricted uses	Acres of LWC	Compare acres of LWC in each alternative and differences in uses that are allowed, avoided, or prohibited. ANILCA provisions allow motor vehicle access and infrastructure for subsistence purposes and remote access in all alternatives.
WSAs	The release of the CAMA WSA will change management for LWC.	Acres of the CAMA WSA released	Tie into the analysis for LWC.
Designated development nodes	Loss of vegetation or changes to plant communities due to development activities	Acres/areas of designated development nodes	Compare across alternatives
Administrative utility corridor designations	Loss of vegetation or changes to plant communities	Acres open to additional corridors (Ambler, Umiat, and Dalton Highway)	Discuss how the action alternatives will require, to the extent feasible, collocation. Compare acres open to new utility corridors.
ROW (linear and site type) ● Transmission lines ● Roads	Loss of vegetation or changes to plant communities	Acres open to ROW (by types); acres of ROW exclusion and avoidance	Compare acres open versus excluded across alternatives.
Recreation ● Open to OHVs ● Open to snowmobiles ● Open to camping/hiking/ horses	Loss of vegetation or changes to plant communities, especially the potential for introduction of NNIS	Acres designated as Special Recreation Management Areas (SRMAs), Extensive Recreation Management Areas (ERMAs), or Backcountry Conservation Areas (BCAs)	Analyze differences between alternatives in management areas and the associated intensity of impacts (i.e., open to OHV travel, primitive use, and snowmobile).

Impact Analysis Area
DIRECT/INDIRECT BLM-managed lands in the planning area **CUMULATIVE** Planning area

Analysis Assumptions
Specific development-related impacts cannot be quantified because no specific projects are proposed. Impacts can only be described qualitatively, both because resource and impact data are unavailable and because project details are unknown. Also, vegetation mapping information is coarse over the planning area, and habitat use data are lacking for most species. The BLM will compare alternatives in terms of acres open or closed to various resource extraction or other reasonably foreseeable future activities. The analysis of alternatives for vegetation resources will focus on the potential for introduction of NNIS, as well as possible effects on special status species or plant communities of limited extent. The vegetation layers selected are a planning-area wide re-creation of a compilation of National Land Cover Database/Vegetation Map of Northern, Western, and Interior Alaska described in the Central Yukon Rapid Ecoregional Assessment. The BLM Alaska special status species list is revised every several years. Because the list is expected to change over the life of the management plan, the BLM will address special status species broadly without specific references to individual species. Any activity or disturbance (referred to above as “Action Affecting Resource”) that directly affects vegetation cover or plant communities may in turn affect plant communities of limited extent and rare plant species, and/or increase the risk of introduction and spread of NNIS. The BLM will consider each of the above “Actions Affecting Resources” in relation to vegetation cover, plant communities of limited extent, rare plant species, and NNIS.

GIS Maps and/or Calculations
Estimates of acres of each vegetation type ● in the planning area ● in BLM-managed lands in the planning area ● in BLM-managed lands closed to surface occupancy for each alternative ● in BLM-managed lands subject to controlled surface use for each alternative ● in BLM-managed lands of high mineral potential for each alternative ● in BLM-managed lands open and closed to timber harvest for each alternative ● in BLM-managed lands open and closed to locatable mineral extraction for each alternative ● in BLM-managed lands open and closed to mineral materials extraction for each alternative ● in BLM-managed lands open and closed to fluid minerals (NSO and controlled surface use) for each alternative ● in BLM-managed lands open to non-energy solid mineral leasing for each alternative ● in BLM-managed lands with an ACEC or RNA designation for each alternative ● in BLM-managed lands designated as LWC for each alternative ● in BLM-managed lands designated as development nodes for each alternative ● in BLM-managed lands open and closed to utility corridors for each alternative ● in BLM-managed lands open and closed to ROWs for each alternative ● in BLM-managed lands designated as SRMAs, ERMAs, or BCAs for each alternative

M.6.5 Wetland Resources

Resource-specific Legal and Regulatory Constraints
• Section 404 of the Clean Water Act • Section 303(d) of the Clean Water Act • Section 10 of the Rivers and Harbors Act • Emergency Wetlands Resources Act of 1986 (Public Law 99-645) • North American Wetlands Conservation Act of 1989 (16 U.S.C. 4401–4413) • EO 11990, Protection of Wetlands (42 *FR* 26961)

Resource Scoping Issues
• Broad-scale wetland mapping (National Wetland Inventory) is available for small portions of the planning area and is not extensive enough to use in this analysis. A draft version of the Alaska statewide vegetation map prepared by the Alaska Center for Conservation Science (Boggs et al. 2016) has an additional wetland attribute and covers the entire planning area; this map will be suitable for the wetland analyses proposed in this EIS (Flagstad et al. 2018). • The Waters of the U.S. rule is under review, and the definition of jurisdictional wetlands and waters may change before specific projects are developed. Permit requirements and mitigation compensation planning may change. • Fine-scale wetland mapping will be required for permitting new proposed projects. • Wetlands are widespread throughout the planning area, and most potential development projects will likely involve the permanent loss of wetlands due to placement of fill. • The RMP should discuss the loss of wetlands due to locatable mining, salable mineral extraction, and ROWs. • The RMP should discuss the degradation of wetlands due to OHV use. • The RMP should discuss the impact of climate change on wetlands and mitigation and monitoring measures. • The RMP should discuss the impact of the introduction of invasive plants to wetlands on wetland function and values.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Commercial timber harvest	Alteration of hydrologic patterns resulting in amelioration or degradation of wetland function	Acres open (or closed as stated in the alternatives comparison table) to commercial timber harvest	Compare differences in acres open to timber harvest. Timber harvest may alter wetland function but does not result in permanent loss of wetlands due to placement of fill; it is not regulated through Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act.
Locatable minerals	Permanent loss of wetlands due to placement of fill or degradation of wetlands due to indirect impacts	Changes in acres of wetland habitats	Compare differences in acres open to locatable minerals between alternatives and differences in dominant wetland classes if possible.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Mineral materials	Permanent loss of wetlands due to placement of fill or degradation of wetlands due to indirect impacts	Changes in acres of wetland habitats	Compare differences in acres across alternatives.
Fluid minerals • Open subject to NSO • Open to controlled surface use	Permanent loss of wetlands due to placement of fill or degradation of wetlands due to indirect impacts, including potential oil spills	Acres open and closed for fluid mineral leasing (NSO and controlled surface use)	Having NSO stipulations would result in less impacts. Discuss plan components to reduce impacts. The RFD scenario states that there is little potential for fluid mineral leasing in the planning area, so there is no need for an in-depth analysis on this issue.
ACEC or RNA designation	Beneficial wetland habitat protection from restricted uses	Comparison of the proportion of high-value wetlands in the ACEC or RNA areas	Alternative B would have the most designated acres followed closely by Alternative E, with Alternative D having the least. Compare differences in allowed/prohibited/avoidance uses. ANILCA provisions still allow motor vehicle access and infrastructure for subsistence purposes and remote access; these are common to all alternatives.
LWC	Beneficial wetland habitat protection from restricted uses	Amount of LWC acres with wetland land cover classes	Alternative B would be the only one to designate acreage to protect wilderness characteristics and would have the most acres designated to maintain wilderness characteristics. Alternative C1 is the only other Alternative that would designate acreage to maintain wilderness characteristics. Compare differences in allowed/prohibited/avoidance uses. ANILCA provisions still allow motor vehicle access and infrastructure for subsistence purposes and remote access; these are common to all alternatives.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Administrative utility corridor designations	Limited, permanent wetland loss due to fill in wetlands and degradation of wetland function due to clearing	Acres open to additional corridors (Ambler, Umiat, and Dalton Highway)	Discuss how action alternatives will require, to the extent feasible, collocation. Compare acres open to new utility corridors.
ROW (linear and site type) • Transmission lines and roads	Wetland loss due to fill in wetlands and degradation of wetland function due to clearing	Acres open to ROW (different types), acres of ROW exclusion, and acres of ROW avoidance	Compare open versus excluded by alternatives.
Recreation • Open to OHVs • Open to camping, hiking, equestrian, and dogsledding	Possible amelioration of wetland values due to increased access to remote wetlands	Acres designated as SRMAs, ERMAs, or BCA	Discuss the wetland types most likely to be affected and the specific function and value changes that may be associated.

Impact Analysis Area
DIRECT/INDIRECT BLM-managed lands in the planning area **CUMULATIVE** The planning area

Analysis Assumptions
• The analysis is largely a broad-scale overview of expected impacts relative to results of similar projects in the planning area. No quantitative analysis will be conducted beyond an inventory of wetland and water types that projected activities are likely to affect.

GIS Maps and/or Calculations
Figure with broad-scale wetland types throughout the planning area, using the wetland attribute associated with the Boggs et al. 2016 map. For the analysis, obtain from GIS estimates the total acres of each wetland type: • in the planning area • in BLM-managed lands in the planning area • in BLM-managed lands closed to surface occupancy for each alternative • In BLM-managed lands subject to controlled surface use for each alternative • in BLM-managed lands of high mineral potential for each alternative • open and closed to timber harvest for each alternative • open and closed to locatable mineral extraction by wetland type and alternative • open and closed to mineral materials extraction by wetland type and alternative • with an ACEC or RNA designation by vegetation type and alternative • of lands designated with wilderness characteristics by alternative • of designated development nodes by alternative • open to ROWs by alternative • designated as SRMAs, ERMAs, or BCA for each alternative

M.6.6 Fish and Aquatic Species

Resource-specific Legal and Regulatory Constraints
• Clean Water Act (33 U.S.C. 1151, 1251, 1254, 1323, 1324, 1329, 1342, 1344), as amended • State of Alaska water quality standards • Geothermal Steam Act of 1970, as amended (30 U.S.C. 1001) • Safe Drinking Water Act Amendments of 1977 (42 U.S.C. 210) • Pollution Prevention Act of 1990 (42 U.S.C. 13101–13109) • Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et seq.) • Water Quality Act of 1987, as amended from the Federal Water Pollution Control Act of 1977 (33 U.S.C. 1271 et seq.) • EO 11644, Use of Off-road Vehicles on Public Lands, February 8, 1972 (37 *FR* 2877) • EO 11988, Floodplain Management, May 24, 1977 (42 *FR* 26951) • EO 11989, Off-road Vehicles, May 24, 1977 (42 *FR* 26959) • EO 11990, Protection of Wetlands, May 25, 1977 (42 *FR* 26961) • Magnuson-Stevens Fishery Conservation and Management Act (Public Law 94-265), as amended in 1996   o Essential Fish Habitat consultation • The Anadromous Fish Act (Alaska Statute 16.05.871-.901) • The Fishway (or Fish Passage) Act (Alaska Statute 16.05.841)

Resource Scoping Issues
• Mining affecting streams, riparian areas, water quality and quantity, fish, and fish spawning areas (stemming from narrow valley conditions, erosion, settling ponds, and elimination of riparian habitats) • Infrastructure development related to mining activities • Infrastructure and subsistence/recreation resulting from mining or other resource development • Hot springs protection or development • Maintaining water quality and quantity flowing into refuges (e.g., turbidity) • Maintaining aquatic habitat productivity to support fish assemblages, which are relied upon for subsistence needs • OHV impacts on water quality and riparian areas • ROW location and impacts in relation to salmon and whitefish spawning areas and water quality

Specific issues discussed during the BLM breakout meeting on October 24, 2018:

- Infrastructure development related to non-mining activities (e.g., surface clearing for camps, roads, and timber harvests)
- Winter road development (e.g., Bettles and Anaktuvuk Pass)
- The potential for the road to Umiat
- Access off the Dalton Highway for gravel pits and other salable minerals
- The potential for Ambler Road
- The potential for the AKLNG line
- Fiber-optic lines
- Various inholdings between Coldfoot and Yukon Bridge to the west

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Surface disturbance caused by development and mining for locatable minerals (higher priority concern) Particularly foreseeable in the case of • Dalton Highway traffic and nearby inholdings • Ambler Road project development	Direct loss of fish habitat	• Acres (lake) or linear miles (stream) of fish habitat in areas open and closed to surface use • Overlay of fish and watershed ranking analysis (high, medium, and low) • Overlay of above by potential level for locatable minerals	Describe the potential impacts of surface-disturbing activities on fish habitat and spawning areas (by alternative). Discuss potential mining expansion due to recommending revoking of withdrawals across the alternatives. Describe the potential for a decrease in habitat quality, including through mobilization of contaminants specific to the underlying geology. Use results from the Water Resources section for indirect impacts on water quality through sedimentation, impacts on floodplain function, and changes in drainage patterns and how these will affect aquatic species. Identify BMPs that would minimize these effects. Note that there is a separate EIS process underway for the Ambler Road project.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Extraction of gravel materials (higher priority concern) • Gravel mining/extraction for construction and maintenance of roads • New gravel sites will be required for utility and transportation corridors ○ Many potential gravel sites are in uplands, which reduces the impact on water quality; however, some lowland sites exist, resulting in greater impacts on water quality	Direct loss of fish habitat	• Acres (lake) or linear miles (stream) of fish habitat in areas open and closed to surface use • Overlay of fish and watershed ranking analysis (high, medium, and low)	Generally, describe the impacts of material sites on aquatic resources and the large potential demand for these resources due to foreseeable development in the planning area (by alternative). Use results from the Water Resources section for indirect impacts on water quality through sedimentation, impacts on floodplain function, and changes in drainage patterns and how these will affect aquatic species.
Fluid leasable minerals (lower priority concern) • Oil and gas development	Direct loss of riparian and fish habitat	Described on a qualitative level because this is a lower priority concern, due in large part to an unlikely RFD for this resource	Generally, describe the impacts of fluid leasable mineral sites on aquatic resources.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Storage and impoundment of tailings and waste rock (lower priority concern)	• Direct loss of fish habitat • Decreasing habitat quality, including through mobilization of contaminants specific to the underlying geology	There is no measurable indicator at this time because there are no mining projects proposed at this time.	Describe the potential impacts of storage and impoundment activities on downstream waterbodies, fish habitat, and spawning areas. Describe the potential for a decrease in habitat quality, including through mobilization of contaminants specific to the underlying geology via seepage or from spills. Use results from the Water Resources section for indirect impacts on water quality through sedimentation, impacts on floodplain function, and changes in drainage patterns and how these will affect aquatic species. Identify BMPs that would minimize these effects.
Spills (higher priority concern) • Potential spills from transportation of hazardous waste (oil, diesel, and natural gas) • Potential spills from pipelines	• Fish habitat alteration if a spill enters waterbodies • Injury or mortality of fish from spilled material if it enters waterbodies	Described on a qualitative level by habitat type and species potentially affected	Generally, describe potential impacts on fish and aquatic habitat by spills of a variety of types, sizes, and spill locations (by alternative). Discuss relative to Anadromous Waters Catalog, essential fish habitat, and ACECs (where practical).

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Winter road development (lower priority concern) • Bettles to Dalton Highway • Anaktuvuk Pass Potential spills and over-ice	• Direct mortality to fish due to water withdrawal	Described on a qualitative level because this is a lower priority concern, unless specific waterbodies and distances/routes are described.	Include a general description of the use of winter roads for Bettles and Anaktuvuk Pass and the potential need for future ice roads should development increase. Focus on water withdrawal needs, ice compaction, the potential for direct mortality during withdrawal, and the potential for spills.
Pipeline development (higher priority concern) • Potential spills • Traffic • Dust • Stream crossings • Pilings Fiber-optic lines	• Fish habitat alteration if a spill enters waterbodies • Injury or mortality of fish from spilled material if it enters waterbodies • Direct mortality or injury to fish due to pile driving activities or bridge and culvert construction at stream crossings	Described on a qualitative level because this is being covered in another EIS	An EIS was completed for the AKLNG pipeline in March 2020. The footprint for this project includes the potential for spur lines and associated development. Use results from the Water Resources section for indirect impacts on water quality through sedimentation, impacts on floodplain function, and changes in drainage patterns and how these will affect aquatic species.
Man-camp construction on/near the Dalton Highway (lower to mid-priority concern) • Potential spills • Water sources required • Dust Stream crossings	• Direct mortality to fish due to water withdrawal	Described on a qualitative level because this is a lower priority concern	Describe, on a general basis, the potential impacts from creation of man-camps to support other activities listed above (by alternative). Discuss impacts on local stream and fish assemblages.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Surface disturbance caused by logging activities (lower priority concern) • Harvest, salvage (e.g., beetle kill), or clearing for infrastructure development	• Direct loss of fish habitat • Loss of woody debris to streams	There is no measurable indicator at this time because there are no logging projects proposed at this time.	Describe the potential impacts of surface-disturbing logging activities on fish habitat and spawning areas (by alternative). Identify BMPs that would minimize these effects. This is considered a lower priority concern at this time.

Travel and transportation management (low to mid- priority concern)
• Dalton Highway travel (higher priority concern)
  ○ Existing
  ○ Potential increase
• OHV use (lower priority concern)
  ○ Most of the activity will take place on the Dalton Highway.
  ○ Recreational users can't take OHVs off the Dalton Highway (according to state law, which the BLM follows now). If that law is feasible, then the BLM might need to respond to or reasonably foresee this.
  ○ Some impacts due to authorized activities (such as gravel mines)
  ○ Some use around the villages on BLM-managed lands, which is not currently regulated
	• Alteration of fish habitat	There is no measurable indicator at this time because of a lack of specific projects at this time.
		Described on a qualitative level by habitat and species potentially affected
			Note the potential effects of off-road traffic to sedimentation rates and other water quality issues (by alternative).
			Use results from the Water Resources section for indirect impacts on water quality through sedimentation, impacts on floodplain function, and changes in drainage patterns and how these will affect aquatic species.
			Most impacts will be on the Dalton Highway and will include increased traffic volume.
			OHV use is considered a lower priority concern at this time.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up

ROWs (higher priority concern)
• Transmission lines
• New and existing
  ○ Roads
  ○ Culverts
  ○ Bridges
	• Direct aquatic habitat loss
	• Indirect aquatic habitat alteration from:
	  ○ Gravel dust and gravel spray
	  ○ Culverts blocking fish passage
		• Acres (lake) or linear miles (stream) of fish habitat in areas open and closed to a ROW
		• Overlay of fish and watershed ranking analysis (high, medium, and low)
			Describe how construction and maintenance of gravel roads affect aquatic resources in the planning area (by alternative). Describe the most vulnerable or important waters and habitats (e.g., deep lakes, spawning and overwintering areas, and springs) likely to be affected.
			
			Describe direct and indirect effects by aquatic habitat types and their context on the landscape.
			
			Use results from the Water Resources section for indirect impacts on water quality through sedimentation, impacts on floodplain function, and changes in drainage patterns and how these will affect aquatic species.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up

Recreation/subsistence development (lower priority concern)
• New opportunities created as a result of infrastructure development impacts (e.g., fishing, hunting, trapping, and backcountry adventure)
• Secondary infrastructure development (e.g., lodges, splinter roads, and hot springs)
• Existing hot spring developments and a usage increase (lower to medium priority concern)
  ○ Development of additional hot springs. Access and increased infrastructure
  ○ Open to OHVs
  ○ Open to snowmobiles
• Trail development is likely and will continue to expand.
  ○ OHV recreation use is closed due to state law in most areas. If laws are revoked, the BLM would likely create infrastructure (lower priority concern).
• Camping, hiking, equestrian, and dogsledding (lower priority concern)
• Aquatic invasive species (potentially higher concern)
	• Increased subsistence/recreational hunting and fishing activities may affect population assemblages of target species.
	• Changes in trophic dynamics
	• Decreased habitat quality due to more foot and vehicle traffic
	• Direct loss of habitat due to development of additional roads, lodges, etc.
	• Increased backcountry and hot spring usage due to increased traffic
	• Changes in water quality due to aquatic invasive species
		Described on a qualitative level because this is a lower priority concern.	Describe the impacts of increased infrastructure and human activity in the analysis area (by alternative) as it relates to subsistence and recreational activities, particularly with relation to habitat degradation, fish (and wildlife) management concerns, and current regulatory considerations (e.g., OHV use).
			Although seemingly of lesser concern, there are more topic sub-headings to discuss here than in some of the other lower concern “actions.”

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Management actions (higher priority concern) • ACECs • RNAs • WSR designation • LWCs • WSAs	• Habitat protections due to restricted land and water use • Removal of some riverine habitat protections (to be determined) resulting in increased land use	Provide acreage or stream miles of protections by management action.	Describe the potential impacts of various management restrictions by alternative.

Impact Analysis Area
DIRECT/INDIRECT Direct and indirect impacts on aquatic resources would be in areas that have current or foreseeable surface-disturbing activities on BLM-managed lands in the planning area. **CUMULATIVE** To be determined (further coordination with Water Resources section). Areas downstream, including wildlife refuges, of surface-disturbing activities may be affected with effects such as degraded water quality; the BLM will need to include them in the analysis area.

Analysis Assumptions
• Construction of the Ambler Road • Construction of the natural gas pipeline • Increased mining activity • Increased infrastructure development (e.g., roads, pads, and camps) • Recommended revocation of PLO 5150 (transfer of lands to the State of Alaska) • Ongoing EISs being completed for Ambler Road and the pipeline

GIS Maps and/or Calculations

• Water/fish habitat figure
  ○ Essential fish habitat
  ○ Anadromous waters catalog (could be combined with above)
  ○ High potential locatable minerals layer
  ○ BLM Watershed Condition Model (high, medium, and low)
  ○ BLM Aquatic Resource Value Model (high, medium, and low)
• NSO figure, including:
  ○ ACECs: Hogatza ACEC, Indian River ACEC, Tozitna River Watershed ACEC, and Jim River ACEC
  ○ RNAs: Redlands Lake RNA and Arms Lake RNA
  ○ LWC, WSRs, hot springs
• Figure showing stream order and floodplain width (could be combined with one of the figures above)
• Tabular analysis: Stream miles and acres (lakes) for the two BLM models watershed ranking
• Tabular analysis: Stream miles and acres (lakes) in occupancy and no occupancy zones
• Tabular analysis: Stream miles and acres (lakes) of anadromous waters in occupancy and no occupancy zones
• Tabular analysis: Stream miles and acres (lakes) of essential fish habitat in occupancy and no occupancy zones
• Tabular analysis: Stream miles by stream order in occupancy and no occupancy zones

M.6.7 Wildlife

Birds

Resource-specific Legal and Regulatory Constraints
• Migratory Bird Treaty Act • Endangered Species Act • Bald and Golden Eagle Protection Act • BLM Alaska Land Health Standards

Resource Issues
• Impacts on breeding areas may decrease population sizes of migratory birds. • Predation may increase near development facilities. • Hunting pressure on some species may increase with increased access routes. • Air and road traffic and noise may disturb wildlife, causing avoidance and reduced habitat quality. • Limitations to finer analyses are expected; species-specific habitat information is sparse; vegetation mapping information is coarse. Analyses will be nonquantitative but based on known and predicted effects of habitat loss and alteration, disturbance and displacement, and risks of injury and mortality. • Include threatened and endangered species and BLM special status species.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Commercial timber harvest	• Loss of nesting, roosting, and perching trees • Habitat loss, degradation, or fragmentation	Acres open or closed (as stated in the alternatives comparison table) to commercial timber harvest	Compare differences in acres open to timber harvest. Discuss the potential for impacts.
Locatable minerals	Loss or degradation of habitat and disturbance and displacement of birds if locatable mineral exploration and development occur. Associated roads and infrastructure can potentially increase bird strikes with vehicles, buildings, and suspended lines.	• Changes in acres of suitable bird habitat overlaid with open to locatable minerals • Stopover and breeding habitats will have a higher level of impacts if developed. • Acres of wetlands, marshes, riparian areas, and waterbodies	Compare differences in acres open to locatable minerals between alternatives. Discuss likelihood of RFD and potential for locatable minerals (high, medium, and low), even though open does not mean the impact will necessarily occur. Discuss plan components that will reduce negative impacts (e.g., prohibited in 100-year floodplain, setbacks from water, and stipulations and BMPs for BLM permittees).
Mineral materials (salable minerals)	Habitat loss, degradation and disturbance, and displacement	Acres open to mineral materials with suitable bird habitat	Compare differences in acres across alternatives.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Fluid minerals • Open subject to NSO • Open to controlled surface use	• Habitat loss, degradation, and fragmentation • Potential oil spills reduce reproductive success and survivorship.	Acres open and closed for fluid mineral leasing (NSO and controlled surface use)	Having NSO stipulations would result in less impacts. Discuss the plan components to reduce impacts.
ACEC or RNA designation	Beneficial habitat protection from restricted uses	Amount of ACEC acres suitable to support bird breeding, stopover, and foraging sites by alternative	Compare differences in allowed/prohibited/ avoidance uses. ANILCA provisions still allow motor vehicle access and infrastructure for subsistence purposes and remote access; this is common to all alternatives.
WSR designation	• Removal of interim management protections and determining rivers not suitable (Alternatives C1, C2, and D) will open 603 miles of eligible river segments to land uses and decrease river habitat protection important for birds. • Impacts on fish prey species	River miles either designated (Alternative B) or not designated (Alternatives C1, C2, and D) as WSRs.	Qualitative discussion of the removal of WSR protections, which can open 603 miles of river habitat to more uses that affect habitat and prey.
LWC	Beneficial habitat protection from restricted uses	Amount of LWC acres suitable to support bird breeding, stopover, and foraging sites by alternatives	Compare the differences in acres and discuss allowed/prohibited/ avoidance uses. ANILCA provisions still allow motor vehicle access and infrastructure for subsistence purposes and remote access; this is common to all alternatives.
Administrative utility corridor designations	• Habitat loss and fragmentation • Electrocution and bird strikes	Acres open to additional corridors (Ambler, Umiat, and Dalton Highway)	Discuss how action alternatives will require, to the extent feasible, collocation.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
ROW (linear and site type) • Transmission lines • Roads	• Habitat loss and degradation • Mortality due to bird strikes and perching for avian predators • Disturbance associated with roads, vehicles, and increased human activity	Acres open to ROW (different types), acres of ROW exclusion, and acres of ROW avoidance	Compare open versus excluded by alternatives.
Recreation • Open to OHVs • Open to snowmobiles • Open to camping, hiking, equestrian, and dogsledding	Disturbance and displacement of birds, nest disturbance and reproductive failure, increased predation due to human food waste, increased access for hunting, and mortality from vehicle strikes	• Acres open to OHVs • Acres designated as SRMAs, ERMAs, or BCA	Analyze the difference of management areas and the associated intensity of impacts (i.e., open to OHV travel and primitive use). Discuss plan components that reduce human disturbance to wildlife (e.g., seasonal limitations and OHV weight limits).

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Surface disturbance from infrastructure footprints (i.e., open pit mine sites, cleared facility sites, pipeline corridors, tailings reservoirs, waste rock dumps, and timber harvest)	• Habitat loss and alteration, including altered successional patterns • With rehabilitation after abandonment, potential creation of avian habitats previously absent on that site for some species and actions	Nonquantitative; locations of infrastructure uncertain	Discuss the types and extent of impacts associated with habitat loss and alteration.
Gravel placement for roads and pads	• Habitat loss, habitat alteration, drifted snow, altered drainage, and dust fallout • Habitat alteration from drifted snow and altered drainage patterns	Nonquantitative; locations of roads uncertain	Refer to table of acres open to development and compare the potential level of impact by alternative. Discuss the types and extent of impacts
Road traffic on gravel roads	Habitat alteration from gravel spray and dust fallout	Nonquantitative; locations of roads uncertain	Discuss estimates of the extent of the effect beyond the edge of the gravel road/pad (dust fallout buffer).

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Road traffic, air traffic, noise, and human activities	• Disturbance and displacement of birds from affected areas • Injury and mortality from accidental collisions	Nonquantitative; locations of facilities uncertain	Discuss potential impacts on bird populations.
Towers, power lines, guy wires, and other aboveground structures	Injury and mortality from accidental collisions	Describe the potential for bird strikes	Discuss potential impacts on bird populations.
Use and storage of hazardous materials	• Injury and mortality from accidental releases/discharges or insecure containment • Habitat loss or alteration	Describe the potential for accidental exposure	Discuss potential impacts on bird populations.
Impoundments and reservoirs	• Habitat loss and alteration • Creation of aquatic habitat	Nonquantitative; locations uncertain	Discuss potential impacts.
Human activities and waste management	Attraction of predators/scavengers (including increased abundance of some birds) and the resulting decrease in survival and nesting success for prey species	Potential impacts on bird populations and predator/prey dynamics (nonquantitative)	Describe attraction of key scavenging and predatory species to human activity and the potential effects on prey populations.

Impact Analysis Area
DIRECT/INDIRECT The planning area **CUMULATIVE** The planning area

Analysis Assumptions
Specific development-related impacts cannot be quantified because no specific projects are proposed. Impacts can only be described qualitatively both because resource and impact data are unavailable and because project details are unknown. Also, vegetation mapping information is coarse over the planning area, and habitat use data are lacking for most species. The BLM will compare the alternatives in terms of acres open or closed to various resource extraction or other reasonably foreseeable future activities. These acreages will not differ among resources. Additionally, the BLM will discuss broad groupings of birds that may be affected within these broadly defined vegetation types (based on very generalized knowledge of habitat use and distribution); the BLM will intersect the vegetation map with NSO areas and with areas of high mineral potential. From the RFD scenario, the most important potential actions in the planning area will be related to ROWs and associated gravel mines (mineral materials) and metals mining (locatable minerals). As no maps are available for ROWs, no quantification of related impacts is possible. Special emphasis will be placed on impacts on golden eagles.

GIS Maps and/or Calculations
Obtain from GIS estimates the total acres of each vegetation type: • in the planning area • in BLM-managed lands in the planning area • in BLM-managed lands closed to surface occupancy for each alternative • In BLM-managed lands subject to controlled surface use for each alternative • in BLM-managed lands of high mineral potential for each alternative • in BLM-managed lands open and closed to locatable mineral extraction for each alternative • in BLM-managed lands open and closed to mineral materials (salable minerals equals gravel) extraction for each alternative • in BLM-managed lands open and closed to fluid minerals (and controlled surface use) for each alternative • in BLM-managed forested lands open and closed to timber harvest for each alternative • in areas with an ACEC or RNA designation for each alternative • in BLM-managed lands designated with wilderness characteristics for each alternative • in BLM-managed lands open and closed to utility corridor development for each alternative • in BLM-managed lands open to ROWs for each alternative • in areas designated as SRMAs, ERMAs, or BCAs for each alternative Also, river miles with WSR designation for each alternative

Terrestrial Mammals

Resource-specific Legal and Regulatory Constraints
• Federal Land Policy and Management Act of 1976 (FLPMA) • NEPA • ANILCA • 43 CFR 24 (Sikes Act) • The Endangered Species Act • Secretarial Order 3347, Conservation Stewardship and Outdoor Recreation • Secretarial Order 3356, Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories • Secretarial Order 3362, Improving Habitat Quality in Big-Game Winter Range and Migration Corridors • Secretarial Order 3366, Increasing Recreational Opportunities on Lands and Waters Managed by the U.S. Department of the Interior • BLM Manual 6500, Wildlife and Fisheries Management • BLM Manual 1730, Management of Domestic Sheep and Goats to Sustain Wild Sheep • BLM Instruction Memorandum AK-2004-023, Alaska Land Health Standards and Guidelines • Depiction of animal location point data is restricted under State of Alaska statute and regulations.

Resource and Scoping Issues
• Priority species (moose, caribou, beaver, and Dall sheep). Where are important habitats for these species located? • What are desired habitat conditions for priority wildlife species? • What specific actions or use restrictions should the BLM consider to protect wildlife habitats and achieve desired population levels? • What are the desired habitat conditions for major habitat types that support a wide variety of wildlife? • The BLM needs to identify wildlife movement corridors to provide for mitigation and connectivity between habitats in light of climate change and future development. • There are concerns about the potential for disease transmission between domestic livestock and Dall sheep. • The State of Alaska requested that the BLM recognize existing State authorities relative to wildlife management. • There are concerns about the impacts of OHVs and trail density on wildlife. • How will development affect population levels, reproductive success, habitat fragmentation, predation, migration, and habitat requirements of priority species? • The habitat type should match the Vegetation section (see Vegetation section). • The BLM should include the potential for threatened and endangered species in the future; though none are present in significant numbers now, the BLM should include them in discussions. • The BLM should include the potential for invasive species in the future; though none are present in significant numbers now, the BLM should include them in discussions.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Management Decisions			
Commercial timber harvest	• Habitat loss, degradation, or fragmentation • Change in successional stage and plant species composition (habitat alterations)	Acres open or closed (as stated in the alternatives comparison table) to commercial timber harvest	Compare differences in acres open to timber harvest and the potential for actions to occur.
Locatable minerals	• Direct loss or degradation of habitat and/or disturbance and displacement of mammals if locatable mineral exploration and development occur. Associated roads and infrastructure can potentially increase vehicle collisions and alteration of habitat. • Potential changes in access for hunting and recreation	Changes in acres of suitable mammal habitat overlaid with acres open to locatable minerals. Break out by caribou ranges and Dall sheep habitat.	Compare differences in acres open to locatable minerals between alternatives. Discuss the likelihood of the RFD scenario occurring. Discuss plan components that will reduce negative impacts. Refer to the potential for locatable minerals (high, medium, and low).

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Salable materials	• Direct habitat loss, degradation of adjacent habitat, disturbance and displacement of mammals in the area	Acres open to salable materials with suitable mammal habitat	Compare differences in land cover, caribou range, and Dall sheep layers across alternatives.
Fluid minerals	• Direct habitat loss, degradation of adjacent habitat, fragmentation of habitat, and disruption of animal movements from roads and pipelines • Potential oil spills and contaminants • Potential changes in access for hunting and recreation	Acres open and closed for fluid mineral leasing (NSO and controlled surface use)	Having NSO stipulations would result in less impacts. Discuss plan components to reduce impacts. Discuss the likelihood of the RFD scenario occurring.
ACEC or RNA designation	Beneficial habitat protection from restricted uses	Amount of caribou herd ranges and Dall sheep areas in ACECs or RNAs	Compare differences in allowed/prohibited/ avoidance uses. ANILCA provisions still allow motor vehicle access and infrastructure for subsistence purposes and remote access; this is common to all alternatives.
WSR designation	• Removal of interim management protections and determining rivers not suitable (Alternatives C1, C2, and D) will open 603 miles of eligible river segments to land uses and decrease river habitat protection. • Impacts on aquatic furbearers and mammal species using riparian habitats • Impacts on fish prey species	River miles either designated (Alternative B) or not designated (Alternatives C1, C2, and D) as WSRs.	Analyze the removal of WSR protections, which can open 603 miles of river habitat to more uses, which would affect beaver and habitat and prey for other mammals.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
LWC	Beneficial habitat protection from restricted uses	Amount of LWC by alternatives	Compare differences in allowed/prohibited/ avoidance uses. ANILCA provisions still allow motor vehicle access and infrastructure for subsistence purposes and remote access; this is common to all alternatives.
WSAs (similar across alternatives)	Release of the CAMA WSA will change to management for LWC.	Acres of the CAMA WSA released	Tie into LWC.
Administrative utility corridor designation	• Habitat loss and fragmentation • Changes or delays in animal movements and distribution of predators	Acres open to additional corridors (Ambler, Umiat, and Dalton Highway)	Discuss how action alternatives will require, to the extent feasible, collocation. Compare open to new utility corridors.
ROW (linear and site type) • Transmission lines • Roads	• Direct habitat loss and degradation • Indirect disturbance or displacement • Changes or delays in animal movements and distribution of predators • Potential changes in access for hunting and recreation	Acres open to ROW (different types), acres of ROW exclusion, and acres of ROW avoidance	Compare open versus excluded by alternatives.
Recommending revocation of PLO 5150	Revocation of PLO 5150 is assumed to lead to land along the Dalton Highway being transferred to State ownership.	Qualitative assessment	Include a general description of impacts.
Recreation • Open to OHVs • Open to snowmobiles • Open to camping, hiking, equestrian, and dogsledding	• The potential change in access for hunting and recreation could result in disturbance and displacement, increased predation due to human food waste, increased access for hunting, and mortality from vehicle collisions. • Habitat alteration	Acres designated as SRMAs, ERMAs, or BCAs	Compare differences in acres between alternatives. Analyze the difference of management areas and the associated intensity of impacts (i.e., open to OHV travel and primitive use). Discuss plan components that reduce human disturbance to wildlife (seasonal limitations).

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Open to reindeer grazing	• Potential competition for forage with caribou, including overgrazing of lichen and a potential change in predator densities • Construction of corrals and disturbance from reindeer herding activities	Qualitative assessment	Include a general description of impacts. This is unlikely to occur during the life of the plan.
Direct Impacts			
Tailings and waste rock storage sites and impoundments	• Direct habitat loss • Potential for contamination	Nonquantitative; locations uncertain	Include a general description of impacts.
Gravel placement for roads and pads	Direct habitat loss	Nonquantitative; locations uncertain	Include a general description of impacts.
Presence of roads and pipelines	• Potential obstructions to caribou movements to and from insect-relief habitat or migratory movements • Habitat loss due to spills or leaks	Nonquantitative; locations uncertain	Include a general description of impacts.
Traffic on gravel roads	• Habitat alteration from gravel spray and dust fallout • Mortality due to vehicle collisions • Displacement or disturbance of mammal species, especially calving caribou • Injury and mortality from vehicle collisions	Nonquantitative; locations uncertain	Include a general description of impacts.
Use and storage of hazardous materials	• Injury and mortality from accidental releases/discharges or insecure containment • Habitat impacts from spills or contaminants, or both	Nonquantitative; locations uncertain	Include a general description of impacts.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Anthropogenic food and waste management	• Attraction or increased population density of predators/scavengers due to anthropogenic food sources and the potential defense of life and property and mortality of grizzly bears • Increase in red fox density	Qualitative assessment	Include a general description of impacts.
Human activities; harvest and recreation	• Increased hunting pressure by federal subsistence and non-subsistence users • Changes in accessibility for hunting and recreation due to new roads or trails • Potential for increased wildland fires	Qualitative assessment	Discuss potential impacts on wildlife populations.
Air traffic supporting development or recreation	• Disturbance, displacement, and rerouting of species from affected areas • Impacts of changes in subsistence hunting on species	• Qualitative assessment • Discuss the likelihood of disturbance on different species	Discuss potential impacts on wildlife populations.
Noise and light associated with development activities, traffic, and aircraft	Disturbance, displacement, and rerouting of species from affected areas	Qualitative assessment	Discuss potential impacts on wildlife populations. Discuss current and projected activity level and noise level estimates.
Indirect impacts of altered habitat use adjacent to BLM-managed lands as a result of activity on BLM-managed lands	Changes to movement patterns as a result of activity may alter the levels of habitat use on adjacent lands managed by other jurisdictions.	Qualitative assessment	Discuss the potential by species.
Climate change and fire management	• Change in vegetation composition and successional stage • Changes in the range of terrestrial mammal species	• Predictions of climate changes • Discuss wildland fire impacts on wildlife	Include a general description of impacts.

Impact Analysis Area
DIRECT Planning area **INDIRECT** Planning area **CUMULATIVE** • Planning area • The annual ranges of overlapping caribou herds (Western Arctic, Teshekpuk, and Central Arctic herds) • Lands within Game Management Units 24, 26B, 25, and 20F

Analysis Assumptions
Contractors' standard analysis assumptions for Alaska are likely sufficient. Additional assumptions include: • The Alaska Board of Game and Federal Subsistence Board will address changing hunting pressure on BLM-managed lands in the planning area. • Subsistence hunting will be allowed along roads. • From the RFD scenario, the most important potential actions in the planning area will be related to ROWs and associated gravel mines (salable minerals) and metals mining (locatable minerals). Development of wind, solar, or geothermal energy, or mining of non-energy leasable minerals and coal are unlikely to occur.

GIS Maps and/or Calculations
1. Summary of land cover types land status (such as NSO and controlled use) under each alternative 2. Summary of mineral potential by land status (such as NSO and controlled use) under each alternative 3. Summary of caribou ranges by land status under each alternative 4. Summary of Dall sheep mineral lick protection zones, movement corridors, and study areas by land status under each alternative 5. Acres open and closed to timber harvest for each alternative 6. Areas with an ACEC or RNA designation by vegetation type and alternative 7. Areas open and closed to utility corridor development by alternative 8. Areas open to ROWs by alternative 9. Areas designated as SRMAs, ERMAs, or BCAs by alternative

M.6.8 Wildland Fire Ecology and Management

Resource-specific Legal and Regulatory Constraints
• Clean Air Act of 1990, as amended (42 U.S.C. 7418) • Pollution Prevention Act of 1990 (42 U.S.C. 13101–13109) • 40 CFR 61: National Emission Standards for Hazardous Air Pollutants • Alaska interagency fire management plan • FNSB 2.5 non-attainment area • Interagency Red Book (Interagency Standards for Fire and Fire Aviation Operations Group 2020) • Alaska Department of Environmental Conservation • Alaska Enhanced Smoke Management Plan (DEQ 2015)

Resource Scoping Issues

Public scoping comments related to wildland fire included the following concerns (followed by internal notes):
• Request to educate the public on the respiratory health consequences of increased fires, and monitor and mitigate impacts on human health
  o Note that impacts of fire on public health would be addressed in the public health section, not the wildland fire management section
• Impacts of climate change on the need for fire suppression in boreal forests
  o Climate change has already affected boreal forests. Impacts and trends from climate change would be included in the affected environment section. Impacts of climate change on proposed management would be discussed in the direct and indirect impacts analysis.
• Effects of fire on caribou habitat
  o No wildland fire management is proposed specifically for caribou habitat. Impacts of fire management on caribou habitat would be addressed in the wildlife section.
• Importance of woody biomass (standing trees) to communities in the planning area and how it will affect wildland fire management plans
  o This would be considered in the forestry section.
• Important ecological role of wildland fire in maintaining wildlife habitat
  o Impacts of wildland fire on wildlife habitat would be addressed in the wildlife section.
• Firefighter safety
  o Restricting tools (e.g., no retardant) can affect firefighter safety. This would be addressed in impacts where relevant.
• Update to “known [fire] sites” database
  o Not applicable to this RMP analysis
• Impacts of managing for LWC on fire management
  o This would be addressed in the wildland fire impacts analysis.
• Use of controlled burns for habitat enhancement
  o Impacts of use of controlled burns and other fire management activities on habitat would be addressed in the vegetation or wildlife sections.
• Site-specific concerns, including Umiat road, Bettles Winter Road, and the area around Hughes
  o Much of the noted site-specific management concerns are not appropriate to address in RMP-level management decisions.
  o The area around communities is identified as a priority for fuel treatment and suppression efforts under all alternatives.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Water (See Water, Fish, Riparian Vegetation, and Soils Sections): • Restrictions on surface-disturbing activities in 100-year floodplains (require erosion control plan) • Potential restrictions on future surface-disturbing activities for areas not meeting functioning-at-risk thresholds following rehabilitation • Restrictions on surface-disturbing activities in lentic areas (0.25 miles) • Restrictions on timber harvest adjacent to waterbodies • Restriction on surface-disturbing activities around hot springs (160 acres) • Restriction on reclamation (must achieve Level 3 functionality) • Restriction on fire fuels management harvest within 50 to 100 feet of a waterbody	• Potential restrictions requiring erosion control plans may limit the size, timing, and location of fuels treatments on a site-specific basis. • Potential restrictions near stream bank and riparian areas and hot springs may limit the size, timing, and location of fuels treatments on a site-specific basis. In the long term, restrictions on treatment could affect the severity and/or size of wildland fires. • Restricting surface-disturbing activities in the 100-year floodplain or near waterbodies could affect fire management specifically around communities, where fuels treatment is a priority to reduce fire risks. • Restrictions on surface-disturbing activities following rehabilitation may result in future site-specific limitations on harvest.	• Areas open to fuels treatments, treatment priorities, and restrictions on treatments • Extent and severity of potential wildland fires	Describe how stipulations around water resources would limit the size, timing, and location of fuels treatments. Describe how stipulations around surface-disturbing activities would limit the size, timing, and location of fuels treatments. Discuss long-term impacts of decreased/increased treatment opportunities on fire behavior.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Soils • Restriction on fire fuels management harvest on sensitive soils • Restriction on surface-disturbing activities greater than 5 acres requiring soil surveys	• Restrictions on fire fuels management harvest on sensitive soils could affect fire management. • Potential restrictions requiring soil surveys may limit the size, timing, and location of fuels treatments on a site-specific basis.	Areas open to fuels treatments and restrictions on treatments	Describe how stipulations around surface-disturbing activities would limit the size, timing, and location of fuels treatments.
Wildlife • Requirements to incorporate design features or stipulations to mitigate impacts on wildlife, wildlife habitat, and wildlife movement • Seasonal restrictions on noise and disturbance in Dall sheep habitat areas, Dall sheep movement corridors, and/or Dall sheep study area	Habitat buffers and seasonal restrictions for special status species and sensitive wildlife habitat areas would restrict the size, timing, location, and cost of fuels treatments and may diminish effectiveness.	• Areas open to fuels treatments, treatment priorities, and restrictions on treatments • Treatment efficiency and costs	Describe how stipulations in wildlife habitat would affect the ability to perform treatments and the efficiency and costs of treatments.
Recreation and Visitor Service • Restrictions on surface-disturbing activities within 2 miles of recreation and visitor services sites	Potential restrictions around these sites may limit the size, timing, and location of fuels treatments on a site-specific basis.	Areas open to fuels treatments, treatment priorities, and restrictions on treatments	Describe how stipulations around surface-disturbing activities would limit the size, timing, and location of fuels treatments.
LWC • Restrictions in ACECs vary and would likely be limited and site specific in nature.	Lands managed for wilderness characteristics or specific ACECs may impose restrictions on access and vegetation management, which affects the ability to perform fuels treatments.	• Areas open to fuels treatments, treatment priorities, and restrictions on treatments • Treatment efficiency and costs	Describe how management would affect the ability to perform treatments and the efficiency and costs of treatments.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Visual Resource Management (VRM)	VRM Class I and II areas may result in restrictions on fuels treatment activities.	Areas open to fuels treatments, treatment priorities, and restrictions on treatments	Describe how VRM class restrictions could affect the ability to perform treatments. Minor impacts from VRM restrictions would be limited and site specific in nature.
Vegetation Management • Requirements to monitor vegetation communities for cumulative effects of wildland fire, suppression activities, and effects of excluding fire • BMPs to prevent the introduction and spread of NNIS • Requirements to conduct surveys for special status plants in known habitat prior to surface-disturbing activities	• Requirements to monitor vegetation communities for cumulative effects of wildland fire, suppression activities, and effects of excluding fire could influence the size, type, and location of fuels treatments. Impacts would be dependent on the vegetation objectives and current vegetation condition. • Requiring BMPs to prevent the introduction and spread of NNIS could affect treatment methods and costs. • Vegetation treatments could affect the potential for wildland fires in the long term, but the level of impacts may be limited at the landscape scale. • Potential restrictions around special status plant sites may limit the size, timing, and location of fuels treatments on a site-specific basis.	• Areas open to fuels treatments, treatment priorities, and restrictions on treatments • Extent and severity of potential wildland fires • Treatment efficiency and costs	Describe affected areas and how vegetation management and restrictions on management may affect changes to fire behavior. Include a qualitative discussion of efficiency and costs and/or reference the socioeconomic section.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Forestry	Commercial timber harvest and vegetation removal management actions may affect fuels levels and the related potential for changes to fire behavior in the long term.	Extent and severity of potential wildland fires	Describe how forestry actions could affect the fuels levels and fire behavior in the long term.
Wildland Fire management actions: • Allow fire use for resource benefits throughout the planning area provided conditions are appropriate. • Use the principles of active management to facilitate wildland fire prevention, suppression, and recovery planning measures designed to protect people, communities, landscapes, and water quality, and to mitigate the severe flooding and erosion caused by wildland fire. • Use prescribed burning, and mechanical and manual fuels treatments to achieve resource objectives, in support of scientific research, or in support of BLM cooperators and partners.	• Allowing prescribed burning, and mechanical and manual fuels treatments to achieve resource objectives would affect the location and methods of treatment. In the long term, fuels treatments could reduce the extent and severity of wildland fires in treated vegetation communities. • Managing fire to minimize impacts on other resources would impose site-specific limits on fuels treatment and suppression. • Use of active management could reduce the extent and severity of wildland fires in treated vegetation communities in the long term. • Adjusting the fire response based on conditions also could result in an increased ability to control the size and extent of wildland fires, and potentially reduce treatment costs and improve efficiency.	• Extent and severity of potential wildland fires • Areas open to fuels treatments, treatment priorities, and restrictions on treatments • Human activity areas open to fuels treatments • Treatment efficiency and costs	Describe how management actions could affect the short-term location of treatments and methods used, as well as long-term changes to fire behavior.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
• Manage wildland fire in a manner that avoids damaging impacts on resources and other values, including the introduction and spread of NNIS, introduction of suppression chemicals into waterways, disturbances of erodible soils or ecologically sensitive systems, and the degradation of air quality. Use minimum impact suppression techniques wherever possible. Repair or mitigate damage that occurs. • Work with adjacent landowners on fire management.	*(see above)*	*(see above)*	*(see above)*
Cultural and Paleontological • For authorized activities, all operations will be conducted so as not to damage or disturb any historic or archeological sites. • Prioritize fuels and vegetation management projects in areas with known vertebrate fossils or high Potential Fossil Yield Classification (PFYC) values for vertebrate fossils.	Fuels treatments may be prioritized in areas with known or a high probability of paleontological resources at risk for damage from wildland fire. All operations will be conducted so as not to damage or disturb historic or archaeological sites and artifacts. As a result, there could be site-specific restrictions on the size, type, and location of fuels treatments.	Areas open to fuels treatments, treatment priorities, and restrictions on treatments	Describe how stipulations in areas with cultural or paleontological resources could affect the ability to perform treatments. RMP management results in limited restrictions on treatment and may not need to be carried forward in analysis. Protection of cultural resources is addressed through other site-specific NEPA analyses.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Air Quality • Wildland fire smoke mitigation measures, per the Alaska Wildland Fire Coordinating Group, will be implemented. • Prescribed burns will adhere to smoke management requirements set by the Alaska Department of Environmental Conservation.	Air quality restrictions could affect the timing and location of prescribed burns.	Areas open to fuels treatments, treatment priorities, and restrictions on treatments	Describe how restrictions could affect the ability to perform treatments.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Human Use Activities • Forestry and woodland product management actions • Lands and realty management actions • Recreation and visitor services management actions (likely minor impact; may not be carried forward in analysis) • Transportation and travel management actions (i.e., summer OHV use) • Locatable, fluid, and salable minerals management actions (minimal potential for development of other energy and mineral resources based on the RFD scenario)	• Areas open to public land use, including but not limited to ROW corridors, areas open to forest product harvest, and recreation areas may be at a greater risk for human-caused fires. The increased potential would be a result of increased human presence, transport of chemicals or fuel, and use of vehicles and equipment. Proposed SRMAs and ERMAs could affect the potential for human-caused fires depending on the recreation emphasis. • Allowing development of locatable, fluid, and salable minerals could introduce ignition sources. • Motorized use may increase the potential for human-caused fires by increasing human presence. Requiring compliance with terms and conditions of BLM authorizations may reduce impacts from use by imposing regulations of exhaust systems or other BMPs to reduce the ignition potential.	Potential for human-caused fire	Describe the rationale for relating human presence with wildland fire. Describe how management actions could affect the potential for wildland fire.

Impact Analysis Area
DIRECT/INDIRECT BLM-managed land in the planning area **CUMULATIVE** The planning area

Analysis Assumptions
• Fire management activities, including fuels treatment, prescribed fire, and suppression efforts, are classified as surface-disturbing activities and would be limited by restrictions on surface-disturbing activities. Emergency response actions to protect human life and property would be excluded from these restrictions. • Increasing the number of people in the planning area would increase the potential for human-caused ignitions. • Impacts would be negligible for management actions for the following resources and resource uses: paleontology and special status species.

GIS Maps and/or Calculations
• Fire regime condition class would not be used in the analysis, as it has been determined that fire regime condition class data are not informative for planning area fire management. • No map of potential fuels is needed, as potential fuels are described in the Vegetation section. • Acres of the human activity area (defined by areas within one-half mile of communities, Native allotments, rivers, roads, and trail access points) overlaid with restrictions on individual surface-disturbing activities (i.e., restrictions in 100-year floodplain and hot springs)

M.6.9 Cultural Resources

Resource-specific Legal and Regulatory Constraints
• Antiquities Act • National Historic Preservation Act (NHPA) • Archaeological Resources Protection Act • Archeological and Historic Preservation Act • Native American Graves Protection and Repatriation Act • American Indian Religious Freedom Act • FLPMA • NEPA • Moving Ahead for Progress in the 21st Century Act (MAP-21): sections on historic bridges, national highway system, statewide transportation planning, and transportation alternatives • EO 13007, Indian Sacred Sites • EO 13287, Preserve America • Programmatic agreement among the BLM, Advisory Council on Historic Preservation, and National Conference of State Historic Preservation Officers “Regarding the manner in which the BLM will Meet its Responsibilities Under the National Historic Preservation Act (NHPA)”(signed in 2012) and the “Protocol for Managing Cultural Resources on Lands Administered by the Bureau of Land Management in Alaska” signed 2014 between BLM Alaska and the Alaska State Historic Preservation Officer (copies on file at the FO) • Programmatic agreement among BLM Alaska, ADNR, Alaska State Historic Preservation Officer, and the Advisory Council on Historic Preservation “Regarding Congressionally-authorized Land Transfers to the State of Alaska,” signed 2002 (copy on file at the FO) • BLM 8100 Series Handbook “The Foundations for Managing Cultural Resources”

Resource Scoping Issues
• Only a portion of BLM-managed lands in the FO have been inventoried for archaeological or cultural resources; more are needed. • Limited documentation of indigenous knowledge, traditional cultural properties, and ethnogeographic place names has occurred; continued consultation with tribes is needed. • Several areas receive heavy impacts from research (Toolik and Galbraith Lakes), recreation (Dalton Highway), development (Dalton Utility Corridor), and mining (federal mining claims and mineral leasing). • Destruction or deterioration to sites from melting permafrost or other environmentally based changes may be occurring.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Ground-disturbing activities resulting from mining, infrastructure, and other development	Permanent destruction and loss of sites; deterioration through increased access, vandalism, and looting; auditory and visual impacts	Number of acres open to or subject to ground-disturbing activity	Quantify the number of acres protected from or open to ground-disturbing activity that may result in direct impacts on cultural resources.
Recreation	• Permanent destruction and loss of sites; deterioration through increased access, vandalism, and looting; or other impacts • Increased awareness and interpretive opportunities for cultural resources	Number of acres subject to recreation development or increased access and increased visitor numbers	Increased access for visitors equals destruction, deterioration, vandalism, looting, and other direct and indirect impacts on cultural resources. Other impacts are possible through interpretation and educational opportunities for cultural resources.
Climate change and fire management	Permanent destruction and loss of sites	• Number of acres subject to permafrost degradation or other climate-related landscape changes • Number of acres or locations subject to fire management decisions, including protection of known cultural resources from active wildland fires	Quantify known acres susceptible to climate change and fire management (e.g., areas of permafrost and places with a high prevalence of forest fire).
Recommending revocation of PLO 5150	Revocation of PLO 5150 may lead to land becoming State owned along the Dalton Highway.	Number of known sites and acres in the inner and outer corridors of PLO 5150	Quantify the acres and known sites that may be transferred to the State, removing federal protections for cultural resources.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
ACEC and other protective land designations	Impact by limiting allowable activities that may result in direct or indirect impacts on cultural resources	Number of acres included in protective designation areas	Quantify what would be protected by ACEC designations and limit ground disturbance.

Impact Analysis Area
DIRECT/INDIRECT The BLM decision area with emphasis on where ground-disturbing activities will be likely authorized or not allowed based on land management decisions. **CUMULATIVE** The planning area and regions directly around the planning area where other actions may result in impacts on cultural resources in the BLM decision area.

Analysis Assumptions
• The BLM will follow existing regulatory procedures for the consideration of impacts on cultural resources (e.g., Section 106 of the NHPA or BLM and Alaska State Historic Preservation Officer agreement protocols). • Sites are nonrenewable resources, and damage to them typically results in permanent impacts. • Many more sites and resources exist in the FO than are currently inventoried; these include traditional cultural properties and other datasets outside the Alaska Heritage Resource Study (AHRS), including but not limited to knowledge of sites from communities in the planning area (e.g., Ruby, Allakaket, Alatna, and Stevens Village) and the Traditional Land Use Inventory sites in the North Slope Borough (see GIS calculations below). • Due to the lack of inventory, it is assumed that sites exist across the planning area. This analysis does not involve a site-specific impact analysis; it only quantifies known sites in an area to demonstrate current knowledge of site location and distribution, particularly in areas that have been subject to more survey, such as the Dalton Highway. • Areas of high potential for cultural resource site location have not been modeled. • Many sites are significant to the regional and national history and prehistory but have never been evaluated for the National Register of Historic Places. This analysis assumes all sites are eligible and subject to the impacts discussed. • The Dalton Highway must be treated as eligible for the analysis.

GIS Maps and/or Calculations

• Use the following datasets to quantify known resources:
  ○ AHRS dataset maintained by the Alaska Office of History and Archaeology (http://dnr.alaska.gov/parks/oha/ahrs/ahrs.htm); it includes points, lines, and polygons of all documented resources.
  ○ Traditional Land Use Inventory data from North Slope Borough (http://www.north-slope.org/assets/images/uploads/Form_600_Application_-_TLUI_Data_Request.pdf)
  ○ Allakaket and Ambler traditional place-names and significant places; the GIS dataset was digitized by Barrett Ristroph based on information shared by Allakaket and Alatna Traditional Councils.
  ○ Datasets from Dr. Annette Watson on traditional subsistence use areas and place-names in the Koyukuk River region.
• Total AHRS sites in the planning area
• Total AHRS sites on BLM-managed lands in the planning area
• Attribute table (from AHRS) for all the sites listed above so that the BLM can categorize them (historic, prehistoric, multi-component, etc.)
• Total of known sites in the high potential areas for resource development; this is primarily for mineral development and mining.

M.6.10 Paleontological Resources

Resource-specific Legal and Regulatory Constraints
• Paleontological Resources Protection Act • FLPMA • NEPA • BLM Instruction Memorandum No. 2016-124. PFYC System for Paleontological Resources on Public Lands

Resource Scoping Issues
• Only a portion of BLM-managed lands in the FO have been inventoried for paleontological resources; more inventory is needed. • Several areas receive heavy impacts from research (Toolik and Galbraith Lakes), recreation (Dalton Highway), development (Dalton Utility Corridor), and mining (federal mining claims and mineral leasing). • The FO should have a PFYC model available to assess the need for further inventory. • A survey should be required in certain areas, based on the PFYC model.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up [2]
Ground-disturbing activities resulting from mining, infrastructure, and development	• Potential for permanent destruction and loss of paleontological resources; deterioration through increased access, vandalism, or looting • Potential for discovery of scientifically important fossils or fossil localities	PFYC values 3–5	Quantify the amount of PFYC values of 3–5 for areas that receive heavy user impacts (e.g., inner corridor, mining claims, gravel pits, proposed Alaska Liquefied Natural Gas, Alaska Stand Alone Pipeline, and Ambler projects). Include potential for positive impacts through discovery
Increased recreation opportunities and higher numbers of visitors	• Permanent destruction or deterioration through increased access, vandalism, and theft • Opportunities for positive impacts through recreation opportunities focused on paleontological resources and potential discovery of scientifically important fossils or fossil localities	PFYC values 4–5	Increased visitors can result in deterioration, vandalism, and theft of paleontological resources. Include positive impacts through potential for discovery, interpretation and educational opportunities for paleontological resources.

[2] The initial analysis will determine whether meaningful quantification is being generated for each action.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up [2]
Climate change/weathering	Permanent destruction and loss of paleontological resources	PFYC values 4–5	Quantify the amount of PFYC values of 4–5 for areas susceptible to climate change (areas of permafrost, etc.). (No quantifiable data were available.)
Recommending revocation of PLO 5150	Revocation of PLO 5150 may lead to land becoming State owned along the Dalton Highway.	PFYC values 4–5	Include the amount of PFYC 4-5 values in selected area and the potential loss of federally managed paleontological resources and locales.
Designations of ACECs	Positive impact by limiting allowable activities and reducing the chances resources may be disturbed and destroyed.	PFYC values 3–5	Include how many acres or percentage of 3–5 values would be protected by ACEC designations.

Impact Analysis Area
DIRECT/INDIRECT All parts of the planning area where ground-disturbing activities will be authorized on BLM-managed land, except ACECs or other special designations that restrict ground-disturbing activities. **CUMULATIVE** The planning area

Analysis Assumptions
• The BLM developed a surrogate PFYC data with the BLM regional paleontologist. • Paleontological resources are nonrenewable. • Many more resources and locales exist in the FO than are currently inventoried. • A survey will not be required in areas that have PFYC values of 1–2. • A survey will be required for PFYC values of 4–5. • Refer to Lindsey 1986 paleontological report (on file at the FO).

GIS Maps and/or Calculations
• The PFYC will not be complete; the contractor will generate a list of geologic units and coordinate with the BLM regional paleontologist for provisional PFYC assignments. • Map showing PFYC values for the planning area • Map showing high PFYC values for areas that receive the heaviest impacts (inner corridor)

M.6.11 Visual Resources

Resource-specific Legal and Regulatory Constraints

• The BLM is responsible for ensuring that the scenic values of public lands are considered when providing for various uses. BLM management of visual resources is guided by its VRM system.
• FLPMA, 43 U.S.C. 1701 et. seq.
  o Section 102(a)(8). States that ". . . the public lands be managed in a manner that will protect the quality of the . . . scenic . . . values . . ."
  o Section 103(c). Identifies "scenic values" as one of the resources for which public land should be managed.
  o Section 201(a). States that "The Secretary shall prepare and maintain on a continuing basis an inventory of all public lands and their resources and other values (including . . . scenic values) …"
  o Section 505(a). Requires that "Each right-of-way shall contain terms and conditions which will … minimize damage to the scenic and esthetic values . . ."
• NEPA, 43 U.S.C. 4321 et. seq.
  o Section 101(b). Requires measures be taken to ". . . assure for all American . . . esthetically pleasing surroundings . . ."
  o Section 102. Requires agencies to "Utilize a systematic, interdisciplinary approach which will ensure the integrated use of . . . Environmental Design Arts in the planning and decision making…"

Resource Scoping Issues

• The BLM received comments on visual resources focused on selecting the appropriate VRM class and assessing the impact of roads and trails on visual resources. One comment recommended VRM Class I be applied to all proposed WSR corridors. Another noted the visual impacts of motorized and non-motorized trails are generally equal and trails should be considered a natural part of the landscape. A third comment stated the BLM needs to work closely with local communities when determining the VRM class for remote areas.
• Internally generated scoping questions related to visual resources included:
  o Are any of the visual values of a scarce nature?
  o Are there locations where protection of visual resources should be a high priority?
  o How can the BLM best reduce and mitigate impacts on visual resources?
  o Given other resource uses, what VRM classes should be applied to establish land use allocation compatibility while protecting visual resource values?

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
VRM classes for each alternative	Changes to the existing visual resource values (visual resource inventory [VRI] classes)	VRI x VRM: Acres of VRI classes in VRM classes for each alternative	Impacts on visual resources are assessed by comparing the VRI class of an area with the VRM class for the same area and assessing the potential for change to the existing visual resource values. VRM classes allowing changes that degrade visual resource values would result in, for example, changing an area from VRI Class II to VRI Class III in any future VRI. Include a table of VRI class acres compared with VRM class acres for each alternative.

Impact Analysis Area
DIRECT/INDIRECT BLM-managed surface lands in the planning area **CUMULATIVE** All lands in the planning area

Analysis Assumptions
• Managing for a certain VRM class will cause that area to eventually inventory to that same VRI class. • At the implementation level, appropriate design techniques will be applied to conform with the appropriate VRM class. • Visual resources in the planning area will become more sensitive to visual change; in other words, they will increase in value over time. • Visual resources will become increasingly important to residents of and visitors to the area. • Residents of and visitors to the planning area are sensitive to changes in visual resources and to the overall scenic quality of the area that contributes to living conditions and the visitor experience. • Activities that cause the most contrast and are the most noticeable to the viewer will have the greatest impact on scenic quality. • As the number of acres of disturbance increases, the amount of impacts on visual resources also will increase. • The severity of a visual impact depends on a variety of factors, including the size of a project (such as the area disturbed and physical size of structures); the location and design of structures, roads, and trails; and the overall visibility of disturbed areas and structures. • The more protection that is associated with the management of other resources and special designations, the greater the benefit to the visual resources. • VRM class objectives apply to all resources. Class objectives would be adhered to through BMPs, project design, avoidance, or mitigation. • Due to the slow rate of recovery of vegetation and surface conditions, all impacts on visual resources from surface disturbances would be long term. • The BLM VRM system visual resource contrast rating process (BLM Handbook H-8431-1) will be used for site-specific actions.

GIS Maps and/or Calculations
• VRM classes for each alternative • VRI classes for each alternative

M.6.12 Wilderness Characteristics

Resource-specific Legal and Regulatory Constraints
• Section 201 of FLPMA • BLM Manual 6310, Conducting Wilderness Characteristics Inventory on BLM Lands (BLM 2012a) • BLM Manual 6320, Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process (BLM 2012b)

Resource Scoping Issues
Public Scoping • The BLM should inventory LWC in the planning area and release the inventory to the public. • The BLM received comments on the management and selection of LWC. • The BLM received comments with general opposition to and support of LWC. • The BLM received comments on the relationship of LWC to ANILCA. • The BLM received comments on the activities on LWC, including building new structures; new structures should preserve or enhance wilderness characteristics. • The BLM is not allowed to manage lands for the non-impairment standard because of exemptions in ANILCA Section 1320. • LWC should not be managed more restrictively than ANILCA conservation units. • When selecting lands to be managed for wilderness characteristics, the BLM needs to consider other factors that may affect manageability, such as land status, mineral ownership, valid existing rights, and access to nonfederal inholdings or adjacent lands. • The BLM received comments on the access through BLM-managed lands to private land. • The BLM received comments on the presence of LWC surrounding or adjacent to private lands. Internal Scoping • What areas should be managed to preserve wilderness characteristics? The decisions are necessary to accomplish this. • Conditions of use are necessary to avoid or reduce impacts on wilderness characteristics.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
LWC	Protection or diminishment of wilderness characteristics	Acres of LWC managed to protect, or not managed to protect, those characteristics as a priority over other multiple uses The indicator of impacts on LWC is degradation of wilderness characteristics to a level that their size, naturalness, opportunities for solitude or primitive and unconfined recreation, and supplemental values would no longer be present in the specific area:	Alternative B would manage LWC to protect those characteristics as a priority over other multiple uses. Alternatives A, C1, C2, and D would not manage LWC to protect those characteristics over other multiple uses. Quantitative impacts will be shown in a table (Acreage Impacts on LWC), which will display the acres of LWC that overlap key

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
(see above)	*(see above)*	• Roadless areas of sufficient size—Impacts would result from building roads. Consider the Alaska Instruction Memorandum with exceptions for motorized use. • Naturalness (apparent naturalness, not ecological naturalness)—Impacts would result from developing facilities or manipulating vegetation, which make the area appear less natural. Opportunities for solitude or primitive and unconfined recreation—Impacts would result from increases in visitation, development of facilities, increases in motorized or mechanical transport routes, or increases in management constraints on primitive recreational use; examples include placing restrictions on campfires, limiting camping to designated sites, and closing areas to camping. • Supplemental values—Impacts would result from any action that degrades the inventoried values.	allocations that could either enhance or diminish wilderness characteristics, regardless of whether they would be managed for their protection. The "Acreage Impacts on LWC" table in the Environmental Consequences chapter will include rows for each of the following rows of this table.
Forestry: commercial timber development	Protection of wilderness characteristics	Acres of LWC in areas closed to commercial timber development	Closing areas limits activities that can diminish the appearance of naturalness.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Lands and realty: ROW avoidance and exclusion	ROW avoidance and exclusion influence changes to wilderness characteristics.	Acres of LWC in areas with ROW avoidance and exclusion	ROW exclusion areas prohibit, and ROW avoidance areas limit, facilities that make an area appear less natural, thereby preserving the appearance of naturalness. In ROW avoidance areas, authorizing access roads that bisect units so that they are no longer considered to be in a roadless area of adequate size would eliminate wilderness characteristics of the entire unit.
Lands and realty: administrative utility corridor designation	Utility corridors influence changes to wilderness characteristics.	Acres of LWC in utility corridors	Utility corridors would allow activities that can diminish the appearance of naturalness or can bisect units so that they are no longer considered to be in a roadless area of adequate size, which would eliminate wilderness characteristics of the entire unit. Within corridors where utilities are colocated, if they overlap the LWC unit, then they would affect characteristics, but they would protect characteristics outside the corridor where the utility would not be placed.
Lands and realty: withdrawal	Protection of wilderness characteristics	Acres of LWC in withdrawal	Withdrawals limit activities that can diminish the appearance of naturalness.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Eligible or suitable WSR segments	Protection of wilderness characteristics	Acres of LWC in eligible or suitable segments/corridors	Protection of Outstandingly Remarkable Values (ORVs) would indirectly protect the naturalness of LWC where they overlap the WSR study corridor.
Locatable minerals (have GIS show by high, moderate, and low potential)	Protection of wilderness characteristics	Acres of LWC in areas withdrawn from locatable mineral entry and areas recommended for withdrawal from locatable mineral entry	Withdrawn areas and areas recommended for withdrawal limit activities that can diminish the appearance of naturalness.
Mineral materials/salable minerals (consider higher likelihood areas)	Protection of wilderness characteristics	Acres of LWC in areas closed to mineral materials	Closing areas limits activities that can diminish the appearance of naturalness.
Recreation and visitor services: SRMAs and ERMAs	SRMAs and ERMAs influence changes to wilderness characteristics.	Acres of LWC in SRMAs and ERMAs	SRMA and ERMA management can affect opportunities for solitude or primitive and unconfined recreation.
Travel, transportation management, and access	OHV class influences changes to wilderness characteristics.	Acres of LWC in OHV use areas	Building roads would affect the indicator of roadless areas of sufficient size; the perceived impact on naturalness, solitude, and opportunities for primitive recreation could be diminished during the time of use.
Visual resources	VRM class influences changes to wilderness characteristics.	Acres of LWC in VRM classes	Different VRM classes can limit activities that can diminish the appearance of naturalness.
ACECs	Protection of wilderness characteristics	Acres of LWC in ACECs	ACECs may provide complementary management and protection of wilderness characteristics.
WSAs	Protection of wilderness characteristics	Acres of LWC in WSAs	WSAs provide complementary management and protection of wilderness characteristics.

Impact Analysis Area
DIRECT/INDIRECT All BLM-managed lands in the planning area **CUMULATIVE** All lands in the planning area, including the CAMA WSA

Analysis Assumptions
• Management and activities outside of LWC would not affect those characteristics, so long as they are not pervasive and omnipresent. • Any proposed action in an area to be managed to protect wilderness characteristics as a priority over other uses would be processed in accordance with the policies stated in BLM Manual 6320, Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process (BLM 2012b).

GIS Maps and/or Calculations
• LWCs intersected with areas open and closed to resource uses, as listed in the "Impact Indicator(s) (include unit of measure)" column in the third table above

M.6.13 Forest and Woodland Products

Resource-specific Legal and Regulatory Constraints
• Applicable federal and State guidance • Alaska State Forest Practices Act • ANILCA

Resource Scoping Issues
The following issues were identified in public scoping related to forestry and woodland products: • Desire of local communities for woody biomass use, an inventory of areas suitable for biomass, and potential impacts of biomass use on other resources • Harvest of wood from BLM-managed lands for local communities (subsistence use for firewood), specifically Hughes, Koyukuk Village, Galena, and Lake Minchumina • Authorization of commercial berry picking • Impacts of travel management decisions (i.e., closures to motorized access) on the ability to access forest and woodland products

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Water (See Water, Fish, Riparian Vegetation, and Soils Sections): • Restrictions on surface-disturbing activities in 100-year floodplains (require erosion control plan) • Restrictions on surface-disturbing activities in lentic areas (0.25 miles) • Restriction on surface-disturbing activities around	Limiting surface-disturbing activities or prohibiting harvest in specific areas for protection of other resources could limit the acres available for harvest and/or result in restrictions on the method, timing, or location of harvest. Restrictions on surface-disturbing activities following rehabilitation may result in future site-specific limitations on harvest.	Forested acres that are available and accessible for timber harvest and vegetation removal	Describe how management actions would affect areas available for timber harvest.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
hot springs (160 acres) • Restrictions on disturbance in rehabilitation areas (Level 3 functionality) • Potential restrictions on future surface-disturbing activities for areas not meeting functioning-at-risk thresholds following rehabilitation • Restrictions on timber harvest and non-subsistence collection of vegetation within 50 to 100 feet of a waterbody	*(see above)*	*(see above)*	*(see above)*
Soils • Prohibit timber harvest on sensitive soils in high-value watersheds (with exceptions) • For surface-disturbing activities greater than 5 acres, a soil survey would be required. • Restrictions on timber harvest and collection of non-subsistence live vegetation on sensitive soils	Soil management would result in site-specific limits on the area in which the harvest would occur.	Forested acres that are available and accessible for timber harvest and vegetation removal	Describe how management actions would limit acres available for harvest.
Wildlife Seasonal restrictions on noise, travel, and disturbance in Dall sheep habitat (Dall sheep habitat area, Dall sheep movement corridor, and Dall sheep study area)	Wildlife management decisions would include seasonal limitations on disturbance and noise, which would result in seasonal, site-specific limits on forest product harvest.	Forested acres that are available and accessible for harvest	Describe how wildlife management would affect acres available for harvest of forest products.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Recreation and Visitor Services Restrictions on surface-disturbing activities within 2 miles of recreation and visitor services sites	Recreation and visitor services management decisions would limit the area in which the harvest would occur.	Forested acres that are available and accessible for harvest	Describe how stipulations around surface-disturbing activities would affect acres available for harvest of forest products.
LWC Management of LWC to protect those characteristics as a priority over other multiple uses	Managing LWC to protect those characteristics as a priority over other uses could result in site-specific limits on timber harvest and vegetation collection.	Forested acres that are available and accessible for timber harvest and vegetation removal	Describe how management actions would limit acres available for harvest. (Note: review wilderness guidelines for specific constraints)
WSR Close wild segments to commercial timber development; prohibit non-subsistence collection of live vegetation (subsistence use still requires a permit)	Restrictions along WSRs would result in site-specific limits on the ability to harvest; however, WSRs north of the Brooks Range would not be affected because there are no woody forest products there.	Forested acres that are available and accessible for timber harvest and vegetation removal	Describe how management actions would limit acres available for harvest. Note areas where restrictions would have no practical impact.
VRM Manage specific areas for protection of VRM class	Although VRM class restrictions may limit vegetation removal, impacts in the planning area would be limited and will not be carried forward. Generally, VRM Class I areas, such as the CAMA WSA and Denali National Park, would not be areas of commercial timber harvest.	N/A	N/A
WSA The CAMA closed to commercial timber harvest	WSA management decisions would limit the area in which the harvest would occur.	Forested acres that are available and accessible for timber harvest and vegetation removal	Describe how management actions would limit acres available for harvest.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Vegetation • BMPs must be followed to prevent the introduction and spread of NNIS. • Vegetation management may be used to remedy or restore forest health damage. • Vegetation and special status plant surveys are required in known habitat for special status plant species.	• Vegetation management to prevent the spread of NNIS could result in limits or increased costs for timber harvest. • Use of vegetation management to restore forest health could improve or maintain vegetation types important for timber harvest or vegetation removal in the long term. • Limiting or prohibiting harvest in specific areas for protection of other resources could limit the acres available for harvest and/or result in restrictions on the method, timing, or location of harvest.	• Increased cost for forest products (note that this is primarily a socioeconomic issue and environmental justice issue, as this generally wouldn't affect most people in the planning area and may not be carried forward in the Forestry section.) • Changes to vegetation cover types for species with timber harvest or vegetation removal use value • Forested acres that are available and accessible for timber harvest and vegetation removal	Describe how vegetation management for forest health could result in the long-term maintenance or improvement of forest product resources. Discuss the potential for site-specific limits on harvest activities.
Forestry • Any commercial harvest within the 100-year floodplain must demonstrate that it would meet aquatic, riparian, and floodplain objectives. • Unless specifically authorized, no green timber may be cut within 300 feet of a highway or public road. • If monitoring indicates any intensive firewood use areas, where demand may exceed supply, then develop a forestry activity management plan.	Woodland harvest management decisions would limit the area in which the harvest would occur. Restrictions to maintain a sustainable harvest level would promote the long-term maintenance of the resource.	Forested acres that are available and accessible for timber harvest and vegetation removal	Describe how management actions would limit acres available for harvest but would help maintain resources in the long term.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
• Permit the use of timber resources, such as firewood and house logs, on a case-by-case basis. • Prohibitions on timber harvest and vegetation removal in specific portions of the planning area (i.e., ACECs)	*(see above)*	*(see above)*	*(see above)*
Wildland Fire Management actions that would prioritize fuels treatments to: • Reduce the risk to human life and inhabited property; the highest priority for fuel treatments would be those communities surrounded by hazardous fuels. • Reduce the risk and cost of wildland fire suppression in areas of hazardous fuels buildup • Achieve other resource objectives, such as habitat needs	Fuels treatments to minimize fire risk could result in site-specific changes in forest products; in the long term, they would help maintain vegetation for timber harvest and vegetation collection by reducing the potential for large-scale, high-intensity fire.	Changes to vegetation cover types for species with timber harvest or vegetation removal use value	Describe short- and long-term impacts from fuels treatment activities on vegetation important for timber harvest and vegetation collection.
Lands and Realty Management of lands to meet public needs for use authorizations, such as ROWs.	ROWs created through forests may increase the amount of forest products created or available temporarily.	Forested acres that are available and accessible for timber harvest and vegetation removal	Discuss temporary changes in forestry products available through large ROW development projects where vegetation clearing would occur.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Travel Management • Restrictions on summer OHV use around ACECs, hot springs, and the Dalton Highway and Dalton Corridor travel management area (TMA) • Restrictions on winter OHV use in certain TMAs	Limiting or prohibiting OHV use may limit access to forest and woodland products.	Forested acres that are available and accessible for timber harvest and vegetation collection	Describe how management actions could limit access to forest products.

Impact Analysis Area
DIRECT/INDIRECT BLM-managed lands in the planning area **CUMULATIVE** Planning area • Consider inclusion of Boreal Ecosystems Analysis for Conservation Networks Benchmark and landscape connectivity corridors in the discussion. The Boreal Ecosystems Analysis for Conservation Networks and Landscape Conservation Cooperatives would be addressed in a separate section to be referenced here.

Analysis Assumptions
• Management actions related to protecting resources, such as water quality, riparian areas, soils, fisheries, wildlife, special status plants, and ACECs, can affect the number of acres and the output of forest products. • Commercial timber harvest removes vegetation and therefore would be considered a surface-disturbing activity and subject to restrictions on surface-disturbing activities. Vegetation removal (e.g., collection of mushrooms and berries) would not be subject to these restrictions. Tiber harvest for subsistence use would also be excepted from these restrictions, subject to permit requirements. • Forest products that are available for harvest may be affected by factors outside BLM management decisions, including but not limited to, wildland fires and changes in vegetation due to shifts in vegetation cover type or precipitation levels. • The levels of demand for forest products will remain relatively stable over the life of the RMP and consist primarily of subsistence use and sales associated with areas cleared for authorized ROWs. • The BLM will continue to issue authorizations for the harvesting of forest products under sustained yields. • There would be negligible impacts from the following resources: energy and mineral development, air quality management, hazardous materials, and recreation.

GIS Maps and/or Calculations
Discussed with the BLM: • Acres of human activity areas (defined by areas within one-half mile of communities, Native allotments, rivers, roads, and trail access points) overlaid with restrictions on individual surface-disturbing activities (e.g., restrictions in 100-year floodplains, hot springs, and WSAs); this approach is suggested because the majority of forestry activities are limited by access and distance from communities rather than forestry resources. • The RMP does not contain a forest management layer (i.e., specific area defined for harvest). White spruce vegetation would be mapped in the Vegetation section of the RMP and could be referenced in this section.

M.6.14 Lands and Realty and Utility Corridor

Resource-specific Legal and Regulatory Constraints
• 23 U.S.C. 107 and 317—ROW and Mineral Materials for Federal highway systems • PLO 5150—Established Utility Corridor and made lands unavailable for selection through the Alaska Statehood Act by the State of Alaska • ANILCA Section 1107—Defines how ROWs are to be managed. Used compatibly with conservation system, recreation area, or National Conservation Area. Requirements for restoration. Requirements that use of ROW will not violate air and water quality standards. Requirements to prevent damage to the environment. • Alaska Statehood Act of 1958—Allows the State to select 103 million acres of federal land for State ownership • FLPMA Section 503, Rights-of-Way Corridors • BLM Land Use Planning Handbook • 1991 Utility Corridor RMP/Final EIS ROD

Resource Scoping Issues
Lands and Realty • Should the BLM recommend the Alaska Native Claims Settlement Act of 1971 (ANCSA) 17(d)(1) withdrawals be retained, modified, or revoked? • Which lands should the BLM make available for sale or exchange? • Are there any lands the BLM should consider acquiring? • Where are the existing and potential ROW corridors? • Are there any areas that should be ROW avoidance or exclusion areas? • What terms and conditions or BMPs should apply to ROW corridors or land use authorizations? Utility Corridor • Should the BLM recommend modification of PLO 5150 to allow conveyance of lands in the Utility Corridor to the State? • If PLO 5150 is modified, what areas and how many acres of State top-filed lands should be included? • Where are the existing and potential ROW corridors?

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Lands and Realty			
Recommended revocation of any withdrawals that preclude State selection	See 43 CFR 2627.4(b). The lands that are top-filed become effective selections and 1) are removed from further federal mineral entry and 2) preclude priority subsistence access.	Acreage top-filed with State overlapped with acreage proposed for revocation of withdrawal	Discuss how lands top-filed by the State and subject to withdrawal would attach as selections for the State under the revocation of withdrawals.
ANCSA 17(d)(I) withdrawals	Open lands to all forms of appropriation under public laws	Acreage withdrawn under each alternative	Discuss potential appropriations under public laws for open lands.
Lands closed or open to leasing sales	Changing land status; overlaps with minerals	Lands and acreage closed and open under each alternative	Discuss the direct impacts resulting from potential leasing purposes.
PLO withdrawals	Impacts on ROW access to and from recreation and subsistence areas Open lands to mineral leasing	Acreage and location of land revoked under each alternative	Discuss lands affected by PLOs and describe withdrawals.
ROW exclusion and avoidance areas	Impacts on access to lands	Acreage of land for exclusion and avoidance under each alternative	Discuss actions and acreage up for exclusion or avoidance. Discuss potential impacts on prevention to access.
Landscape connectivity corridors	Avoidance zone for any activities that disrupt habitat connectivity, cause habitat fragmentation, or present barriers or deterrents to wildlife movement. Such activities would be authorized in the corridors only when no other feasible alternative exists.	Acres of landscape connectivity corridor	Discuss acreage where proponents of surface-disturbing activities would have to consider other feasible alternatives.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Development node actions	Impacts on infrastructure collocation and potential land transfers	Development node criteria	Identify development node criteria and provide a description of areas designated as potential development nodes under each alternative. Discuss how development may impede or support infrastructure collocation and land tenure.
Utility Corridors			
Dalton Utility Corridor designation and the modification of PLO 5150 Utility Corridor Proposed Action 12 • Encourage exchanges for federal ownership for multiple use management area • Alternatives B–E: Acquire private parcels in Zone 1 lands	Lands in the Dalton Utility Corridor are top-filed by the State. Impacts on the Utility Corridor include reducing the size of Utility Corridor acreage and conveyance of lands in the corridor out of federal ownership.	Acres of Dalton inner and outer utility corridor Acreage of Utility Corridor top-filed by the State	Include introductory paragraph on the types of actions that are included in the direct loss of BLM-managed federal lands in the Utility Corridor. Discuss the State's top-filed lands and how many would be transferred. Discuss proposed acreage to be transferred under each alternative, and location of that transfer. Discuss whether modifying PLO 5150 would prevent access to subsistence areas used by the city of Wiseman, or if Utility Corridor Proposed Action 12 would allow that.
Additional Utility Corridor designations	Management of utility corridors would provide the BLM and public with greater certainty on future infrastructure development. Also, it would protect the riverine environment connecting Arctic National Park to Colville River by collocating infrastructure.	Acres of designated utility corridors	Discuss potential opportunities for infrastructure collocation associated with corridor designations; overlay with ROW open, exclusion, and avoidance areas.

Impact Analysis Area
DIRECT/INDIRECT BLM-managed lands in the planning area **CUMULATIVE** The planning area • Adaptive management: Within benchmarks, discretionary land uses would not be authorized if they would result in loss of hydrologic connectivity, size suitability, or reduction of intactness below 85 percent (see SOP BENCHMARK-1 in **Appendix F**). Thus, acres within benchmarks would become unavailable for discretionary realty actions if cumulative impacts reach those thresholds. • Adaptive management: If long-term monitoring indicates that discretionary actions are causing a loss of the ecological representation value then discretionary actions would not be authorized until the trend reversed (see SOP BENCHMARK-2 in **Appendix F**). Thus, acres within benchmarks would become unavailable for discretionary realty actions if cumulative impacts reach those thresholds.

Analysis Assumptions
• There would be a partial or full withdrawal of lands under PLO 5150 and attachment of selection on lands top-filed by the State. • Designated utility corridors would be the preferred locations for future infrastructure development. • Continuous utility corridors are more effective than discontinuous corridors at accommodating new ROW development. • There would be no demand for wind and solar energy ROWs in the decision area during the life of the plan. Localized renewable energy development could occur in the planning area but would not be on BLM-managed lands and would therefore not require BLM ROW authorization. • Effective selections on 17(d)(1) withdrawals can be conveyed at any time regardless of whether the Secretary revokes any 17(d)(1) withdrawals.

GIS Maps and/or Calculations
• ANCSA land withdrawals • Calculations on potential PLO withdrawals • Maps of lands top-filed by the State of Alaska • ROW exclusion and avoidance areas by alternative: total and by category (100-year floodplain lands, caribou ranges, bluffs, pingos, asbestos sites, ACECs, hot springs, wetlands, lentic areas, slopes greater than 35 percent, alpine vegetation, lichen, Dalton Corridor BCA, Dall sheep movement corridor, Dall sheep study area, Dall sheep habitat area, etc.) • Verify acreage for land disposal • Acreage of Ambler Road and the road to Umiat by alternative • Miles of publicly available routes along Ambler Road and the road to Umiat • Acreage of PLO 5150 (total, inner corridor, and outer corridor) • Acreage of land top-filed by the State (acreage exclusively within the inner corridor and acreage exclusively within the outer corridor) • Acreage of ACECs open and closed for leasing sales • Acres of benchmarks open to discretionary realty actions that could potentially be closed under an adaptive management strategy • Acres in connectivity corridors that would be avoidance zones for activities that disrupt connectivity

M.6.15 Energy and Minerals

Between development of the Draft RMP/EIS and the Proposed RMP/Final EIS, the BLM identified needed factual corrections to the geographic extent of the ANCSA 17(d)(1) withdrawals. The corrections identified additional lands withdrawn by ANCSA 17(d)(1) Public Land Orders (PLOs) and BLM made associated updates to **Chapter 2, Alternatives**, and the affected environment, here.

The BLM determined that the Draft RMP/EIS should have identified approximately 5.9 million acres of additional lands in the planning area as withdrawn under certain ANCSA 17(d)(1) PLOs, for a total of 11.1 million acres of land encumbered by ANCSA 17(d)(1) PLOs in the planning area. The Draft RMP/EIS reviewed these lands as open to entry under the public land laws and to mineral claims, however lands were not open due to the withdrawals. The ANCSA 17(d)(1) PLOs in the planning area generally withdrew lands from all forms of entry under the public land laws, but some still allowed certain types of mineral claims. Data on acreages by PLO and pertinent segregation(s) related to potential for mineral entry are summarized in the tables below, along with narrative descriptions by specific PLOs. The areas in which the land was analyzed as open to mineral entry, but are actually closed, have the most potential for the corrected analysis to show environmental impacts not previously disclosed in the DEIS.

The correction of lands under PLOs does not constitute a significant change in the effects analyzed in the Draft RMP/EIS triggering the need for a Supplemental Draft EIS because the assumptions for analysis considered these lands to be without segregations from leasable or metalliferous mining; and thus the impacts disclosed related to mineral development are overestimations of potential environmental impacts related to these activities (40 CFR 1502.(c)). This applies to all resources, other resource uses, special designations, and the socioeconomic conditions analysis in this chapter.

Resource-specific Legal and Regulatory Constraints
• Interim conveyed lands and Native-selected lands • General Mining Act of 1872 • Surface Mining Control and Reclamation Act • Hardrock Mining and Reclamation Act of 2009 • Federal Mine Safety and Health Act of 1977 • Mineral Leasing Act of 1920 • Geothermal Steam Act of 1970 • Mineral Materials Sale Act of 1947 • 43 CFR 2(c) • ANCSA • ANILCA

Resource Scoping Issues
• Which lands should be open to mining/resource extraction? • Which lands should be closed to mining/resource extraction? • What terms, conditions, or other special considerations are needed to protect other resource values while conducting activities under the operation of the mining/resource extraction laws?

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Lands withdrawn or recommended for withdrawal from locatable mineral entry PLO 5150 is being withdrawn for all alternatives; the numbers are being revised.	Reduction in the acreage and potential production of locatable minerals	Acres of federal mineral estate withdrawn from locatable mineral entry	Include a table that compares the acres open or recommended for withdrawal from locatable mineral entry across the alternatives. Consider acres withdrawn by potential level.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Lands closed or restricted to fluid mineral leasing	Reduction in the acreage and production of fluid minerals and reduced possibility of discovery of new fluid mineral resources	Acres of federal mineral estate open, with controlled surface use, with timing limitations, with NSO, and closed from fluid mineral leasing	Discuss acreage closed, restricted, and open but note the low potential for development regardless of open acreage. Focus on areas with identified potential. Mention that there is no geothermal development expected.
Exclusion areas for location of pipelines and roads	Reduction in routing options for pipeline placement and the increase in pipeline cost ANILCA Title XI has a provision that conservation system units must consider transportation and utility lines. The BLM may not be able to implement ROW exclusions in many areas.	• Acres of pipeline ROW exclusions • Forcing ROWs onto conservation system units	ANILCA Title XI allows utility and transportation ROWs on public lands; this may supersede exclusions. Most development is expected in the inner corridor. Check for linear features closed to ROWs that could force long reroutes. Consider proposed new road corridors.
Lands closed to salable mineral (mineral materials) disposal	Reduction in the acreage and potential production of mineral materials	Acres of federal lands open or closed to mineral materials disposal	Areas closed to disposal could result in less development of mineral materials resources. Acreage may change under all alternatives (including Alternative A) due to PLO withdrawals changing. Include primary activity in the Dalton Utility Corridor and the potential for additional activity in Ambler Road, Chandler Road, and road to Umiat corridors. Development nodes should be entirely open to salable disposal.
Lands closed to non-energy solid mineral leasing	Reduction in the acreage and potential production of non-energy leasable minerals	Acres of federal lands closed to non-energy solid mineral leasing	There is a very low potential; an in-depth discussion is not needed.

Impact Analysis Area
DIRECT/INDIRECT The planning area **CUMULATIVE** • Fluid minerals—The planning area and North Slope developments (fluid mineral development is unlikely to occur in the planning area while proven reserves exist in the North Slope; development north of the planning area is likely tied to the continued operation of TAPS) • Mineral materials—The planning area only (mineral materials can be transported about 10 miles before it becomes more cost effective to build a new pit) • Locatables—All of mainland Alaska (displaced mining if large areas are closed or opened) • Nonenergy leasables—No projected activity means no cumulative impacts.

Analysis Assumptions
• Areas recommended for withdrawal in the RMP will be withdrawn. • Areas previously recommended for withdrawal but not withdrawn will remain open to locatable mineral entry, and they are not considered to be withdrawn for the purposes of this analysis. • Selected lands are segregated from locatable mineral entry until conveyance or release of the selection. However, for the purposes of analysis, they are considered open to locatable mineral entry. • Future coal development would have to go through the coal screening process and RMP amendment.

GIS Maps and/or Calculations
• Acres withdrawn and recommended for withdrawal/open by potential level for locatable minerals, including the percentage of the decision area and planning area acres closed, controlled surface use, timing limitations, and NSO • Open by potential level for fluid minerals including the percentage of the decision area and planning area • Acres closed and open for mineral materials, including the percentage of the decision area and planning area, and in the inner corridor and other top ROW corridors (need GIS to identify top ROW corridors) • Acres of ROWs exclusion areas that are open to mineral materials

M.6.16 Recreation and Visitor Services

Resource-specific Legal and Regulatory Constraints
• ANILCA 1323(b) grants access to non-federally owned land surrounded by BLM-managed land to secure to the owner “reasonable use and enjoyment,” subject to terms and conditions and the rules and regulations applicable to access across the public lands. • BLM Recreation Handbook (H-8320-1) • BLM Land Use Planning Handbook

Resource Scoping Issues
• The BLM received comments about conflicts between subsistence, local, and nonlocal hunters regarding the use of aircraft, competition for game, and degradation of the user experience. • The BLM received comments about conflicting development needs along the Dalton Highway. • Increased recreation use at sites like the Arctic Circle could negatively affect visitor experiences and outcomes. • What areas are important for recreation? • What types of recreation opportunities should the BLM provide? • Are more recreational facilities needed and where should they be located? • Does designating recreation management areas (RMAs) support desired recreation outcomes and experiences? • Should RMAs, or other areas, be available for motorized forms of recreation?

Resource Scoping Issues
• How can impacts from recreation be minimized? • What are the seasonal use impacts on current infrastructure and the capacity of the BLM to manage them? • How can the BLM best manage Special Recreation Permits?

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Utility Corridor designations	If corridors with travel routes would be open to the public, corridor designations would support motorized recreation and access along roadway corridors; they could inhibit, preclude, or decrease the quality of some forms of recreation. Travel routes along utility corridors provide unique recreational experiences for motorized travel in the planning area.	Acres of designated corridors by alternative	Corridor designations would support motorized access to recreation opportunities but increase crowding, which would reduce the quality of those experiences. Administrative designations for Ambler Road and the road to Umiat, under various alternatives, would overlay on top of SRMAs. Routes within corridors would be open to the public.
Routes (snow and industrial) proposals in Utility Corridor designations	Publicly available routes in utility and transportation corridors would facilitate access to BLM-managed lands.	• Impacts on established remote recreation lodges • Increased use of BLM-managed lands by recreation users (i.e., skiers and fat tire bikes for winter recreation use)	Discuss recreation in the area related to game availability. Discuss how road development may interfere with game availability. Discuss how road development may improve access conditions for other recreationists.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Transportation corridors (Ambler and Umiat)	Acres designated as Dalton Highway, Ambler Road, and Umiat	Acreage/mileage of transportation corridors	Mostly discuss cumulative effects; however, roads supporting mineral development would not be publicly available for use but would be seasonally available for subsistence use. Furthermore, the transportation corridor designation is an action on lands and realty, but the availability of the transportation corridor opens new recreation opportunities.
Restrictions on OHV use	OHV restrictions, including seasonal restrictions, that limit access to recreation opportunities or preclude OHV recreation	Acreage where OHV access and use are precluded or limited	Discuss OHV and TMA restrictions on OHV usage. Discuss how they may increase or decrease access to certain recreational activities and how they could affect the quality of some activities. Also discuss recreational usage of OHVs.
SRMAs and ERMAs with associated VRM classification	• Types of recreation usage • User conflict • Preclusion to access • Quality of recreational experiences	• Areas designated as SRMAs or ERMAs • VRM classification of designed RMAs	Discuss classification of each SRMA and ERMA under each alternative. Include a paragraph discussion on how VRM classifications can lead to improved or reduced experiences or prevent or improve access for recreational usage or recreational quality.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Aircraft use restrictions	• Minimum altitude requirements may prevent certain recreational activities, such as wildlife viewing. • Aircraft use restrictions may affect small aircraft usage and unmanned aircraft systems.	Acreage of ACECs under each alternative where aircraft flight restrictions would apply	Include a paragraph discussion on the types of aircraft recreational uses (both manned and unmanned aircraft systems). Discuss what recreational uses exist during altitude restriction time limits and how they would be affected. Discuss management plan implications on unmanned aircraft system impacts on recreationists.
BCAs	• Precluding access for certain types of recreation while enhancing the experiences of others through ROW designations and VRM • Restricting the amount of time spent in BCAs could reduce opportunities and increase or decrease the potential for user conflicts.	• Acres of BCAs • Day stay limitation lengths	Discuss recreation in BCAs and how different management actions under each alternative would affect recreation in the area, either by precluding some types of recreation, enhancing opportunities for others, or increasing or decreasing the potential for user conflicts.
Areas identified as LWC	• Precluding or preventing access and reducing time spent recreating in the area • Limitations of activities that would conflict with recreation • Enhancing other recreation experiences and setting	Acreage managed as LWC and associated management (such as using restrictions and limitations, and the types of recreation allowed and banned)	Discuss the types of recreation occurring on LWC and how management alternatives would improve or diminish the quality of recreation in these areas.
Infrastructure and minerals development	Increase or decrease in the potential for conflicts, especially with dispersed recreation	• Acres designated as ROW avoidance or exclusion areas • Acres open or closed for mineral leasing and development (leasable, locatable, and mineral materials)	Discuss the potential impacts on recreation from ROW and mineral development.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Forest resources	• Increase or decrease in the potential for commercial timber development and woodland harvest for biomass energy plants to conflict with recreation • Change in the recreation setting (short and long term) from timber development and woodland harvest/biomass development activity	Acres available for commercial timber development and woodland harvest	Discuss impacts on recreation opportunities and setting from commercial timber development and woodland harvest.
ACEC designations	• Increase or decrease in opportunities for certain recreational activities • Change in the level of conflict with uses • Increase or decrease in the quality of the recreation setting and opportunities	Acres of ACECs	Discuss impacts of ACEC designations on recreation opportunities and setting.
WSR designations	Change in the availability and quality of water-based and water-related recreation	Miles of designated WSRs, including segments with recreational ORVs	Discuss the potential for WSR designation or lack thereof to affect the quality of recreation, especially fishing, kayaking, and sight-seeing.
Water, fish, riparian, vegetation, and soils management	• Changes to the recreation setting from the management of resources that directly or indirectly contribute to that setting • Increase or decrease in the number of opportunities for certain types of recreation	Acres and locations, such as near riparian areas or hot springs, where surface disturbance would be precluded	Discuss how managing resources would directly and indirectly affect the recreation setting. Discuss how resource protections would preclude some recreational activities while allowing others; discuss the potential for conflicts in these areas.

Impact Analysis Area
DIRECT/INDIRECT The decision area (includes the Dalton Utility Corridor) **CUMULATIVE** The planning area

Analysis Assumptions
• Assume if there is a recommended partial or full revocation of PLO 5150 that priority 1 and 2 selected land would be transferred to the State. • Current recreation in the planning area will continue. • The potential for user interactions between all types of users will increase with increasing use. • Increasing the access to BLM-managed lands would increase the demand for recreation on those lands. • Restrictions on aircraft usage would affect recreation; however, the Federal Aviation Administration manages airspace, and regulations are outside the BLM's control. • Initial State selections have included all wayside and campgrounds currently managed by the BLM.

GIS Maps and/or Calculations
• Acres of RMAs by alternative • Acres of RMAs by alternative, with overlapping acreages of other land use allocations, as listed in the four-column table above • Acres of BCAs by alternative

M.6.17 Travel Management

Resource-specific Legal and Regulatory Constraints
ANILCA provides specific guidance on access for: • The use of snowmobiles, motorboats, and other means of surface transportation traditionally used for subsistence purposes by local residents on all federal public lands (Section 811). See ANILCA Section 102(3) for the definition of "public lands." • The use of snowmobiles, motorboats, airplanes, and non-motorized surface transportation methods for traditional activities on conservation system units, national recreation areas, and national conservation areas (Section 1110). • ANCSA 17(b) easements—Access to public lands from most villages is provided by Section 17(b) easements reserved on or across lands conveyed to Native corporations under the ANCSA. • Alaska Statute sec. 19.40.210 prohibits the use of OHVs on land within 5 miles of the ROW of the Dalton Highway north of the Yukon River, except for persons who hold a mining claim near the highway and who must use land within 5 miles of the ROW to gain access to the mining claim. • The revised memorandum on snowmobile use in Dalton Utility Corridor dated October 29, 2004, allows an authorized officer to permit the use of vehicles and snowmobiles across lands. • Alaska Statue Sec 19.40.210 has also been amended to allow users to cross the inner corridor to access privately held property or homesteads outside the corridor. • BLM Manual 1626, Travel and Transportation Management • 43 CFR 8340 provides specific guidance on designating public lands for use of OHVs and establishing management controls for the use and operation of OHVs in these areas. This also provides designation criteria to minimize conflicts with other resources.

Resource Scoping Issues
• Is there a need for acquisition, termination, or relocation of 17(b) or other easements for access to public lands? • What opportunities exist for cooperation and coordination with Native corporations in 17(b) easement management? • What considerations are needed for management of existing and proposed ROWs, including the Dalton Highway, Bettles Winter Road, and the State's Roads to Resources Program? • Where and how should the BLM limit OHV use? • What are the effects of OHV use on natural resources and how can these impacts be reduced? • Where are existing trails located and where are additional trails needed? • Where have existing trails resulted in resource damage and what are the options for avoiding further degradation?

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
OHV area designations	Areas open, limited, or closed for OHVs/motorized travel capable of, or designed for, travel on or immediately over land, water, or other natural terrain	Acres of OHV open, limited, and closed	Discuss how OHV areas affect the location and extent of OHV use in the decision area.
Recommended revocation of PLO 5150	Revocation of PLO 5150 may lead to land becoming State owned along the Dalton Highway. State land along the Dalton Utility Corridor is exempt to the ANILCA provision.	• Acreage transferred to State ownership • Mileage of road affected and whether that is paved or unpaved along the Dalton Highway	Discuss the potential revocation of PLO 5150. Under each alternative, discuss how the recommended revocation or partial revocation of PLO 5150 may change travel the BLM manages; Alaska Statute sec. 19.40.210 would still stand, resulting in no actual change in travel management.
Areas managed as TMAs	Areas managed as TMAs may prevent or impose limitations on OHV usage.	• Limiting factors for OHV usage (vehicle weight in pounds, width, or type; seasonal use; or designated routes) • Acreage of TMA	Include a paragraph discussion on potential TMAs and the acreage affected. Discuss limitations on certain modes of transport and benefits for other forms of transport. Discuss potential user conflicts. Discuss potential impacts of PLO 5150 revocation in the Dalton Utility Corridor.
Development nodes	Constructed along transportation routes and utility corridors to facilitate collocation of infrastructure, which may support travel	Areas identified for development nodes	There are no transportation decisions relative to development nodes. Development nodes may help facilitate travel along transportation corridors.

Impact Analysis Area
DIRECT/INDIRECT BLM-managed lands in the planning area **CUMULATIVE** The planning area

Analysis Assumptions
• Assume if there is a partial or full revocation of PLO 5150 recommended that priority 1 and 2 selected land could be conveyed to the State at some point. • Assume there is partial ROW avoidance or exclusion. • Roads developed for private mineral development would not be available for public use but could be seasonally available for subsistence users. • Visitation to the planning area would continue to increase, thereby increasing demand for public access. • Those seeking access in the decision area have different and potentially conflicting ideas of what should constitute public access on public lands. • Assume the Dalton Utility Corridor would continue to have OHV use restrictions under Alaska Statute sec. 19.40.210 regardless of any changes under PLO 5150. • Aircraft is a common form of transportation to the planning area; however, the Federal Aviation Administration manages airspace, and regulation is outside the BLM's control. • The analysis does not apply to intervillage travel. The BLM acknowledges these travel systems, and decisions by the BLM are not going to affect those systems.

GIS Maps and/or Calculations
• Acres open/closed/limited for OHV use • Miles of designated routes (e.g., non-motorized trails) • ROW avoidance and exclusion areas overlapping OHV areas, also for recreational purposes • TMA acreage (analysis on corresponding OHV management within those acres) • Mileage of routes within transportation and utility corridors open for public usage, closed for public usage, and seasonably available for subsistence usage

M.6.18 Areas of Critical Environmental Concern

Resource-specific Legal and Regulatory Constraints
• 43 U.S.C. 1702(a)—Definitions • 43 U.S.C. 1712(c)(1)—Land Use Plans • 43 CFR 1610.7-2—Designation of Areas of Critical Environmental Concern • 43 CFR 3809—Surface Management • 43 CFR 8223—RNAs • BLM Handbook H-1601-1, Land Use Planning Handbook • BLM Manual 1613, Areas of Critical Environmental Concern (BLM 1998) • BLM Instruction Memorandum 2010-113, Areas of Critical Environmental Boundary Data Standards • Alaska Statutes Title 16, Fish and Game • Clean Water Act • Migratory Bird Treaty Act • Conservation system units under ANILCA • The cultural resource and fish legal and regulatory constraints also apply to ACECs and are incorporated by reference.

Resource Scoping Issues
• Are the current ACEC and RNA designations meaningful and of the proper size and location? Should they be maintained, modified, or dropped? • Are the ACEC and RNA boundaries appropriate in size? • Are there any other areas in the planning area that should be considered for ACEC or RNA designation? • Are the data used to determine ACECs adequate and up to date? • Does the BLM adequately justify ACEC determinations or provide enough information on management considerations for ACECs?

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
ACECs	Protection or diminishment of relevant and important values	The indicator of impacts on ACECs is the following: Management actions that would fail to "prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards" (BLM 1988).	The discussion will focus on analyzing impacts on relevant and important values in potential ACECs or portions of ACECs that would *not* be designated. ("Potential ACECs" are those areas that meet relevance and importance criteria and thus were considered during alternatives development.) Quantitative impacts will be shown in a table (Acreage Impacts on Undesignated ACECs), which will display the acres of undesignated ACECs in each alternative that overlap key allocations that could affect (enhance or diminish) relevant and important values. The "Acreage Impacts on Undesignated ACECs" table in the Environmental Consequences chapter will include rows for each of the following rows of this table.
Forestry: commercial timber development	Impacts are specific to the ACEC and are based on the impact that management action(s) would have on the relevant and important values of an ACEC.	Acres of undesignated ACECs in areas closed to commercial timber development	Closing areas limits activities that can affect relevant and important values.
Lands and realty: ROW avoidance and exclusion	Impacts are specific to the ACEC and are based on the impact that management action(s) would have on the relevant and important values of an ACEC.	Acres of undesignated ACECs in ROW avoidance and exclusion	ROW avoidance and exclusion areas can affect relevant and important values.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Lands and realty: utility corridors	Impacts are specific to the ACEC and are based on the impact that management action(s) would have on the relevant and important values of an ACEC.	Acres of undesignated ACECs in utility corridors	Utility corridors would allow activities that can affect relevant and important values (in corridors where utilities are colocated; if they overlap potential ACECs, then they could affect relevant and important values; but they would protect relevant and important values outside the corridor where utilities would not be placed).
Lands and realty: minerals	Impacts are specific to the ACEC and are based on the impact that management action(s) would have on the relevant and important values of an ACEC.	Acres of undesignated ACECs in valid State-selected areas (on the GIS layer), which are not available to federal mineral entry	Withdrawals limit activities that can affect relevant and important values.
Lands and realty: withdrawal	Impacts are specific to the ACEC and are based on the impact that management action(s) would have on the relevant and important values of an ACEC.	Acres of undesignated ACECs in withdrawal	Withdrawals limit activities that can affect relevant and important values.
LWC	Impacts are specific to the ACEC and are based on the impact that management action(s) would have on the relevant and important values of an ACEC.	Acres of undesignated ACECs in LWC where LWC are prioritized over other multiple uses	Protection of LWC can limit activities that can affect relevant and important values; it would indirectly protect relevant and important values where undesignated ACECs overlap LWC managed as a priority over other multiple uses.
Locatable minerals (by potential)	Impacts are specific to the ACEC and are based on the impact that management action(s) would have on the relevant and important values of an ACEC.	Acres of undesignated ACECs in areas withdrawn from locatable mineral entry and areas recommended for withdrawal from locatable mineral entry	Withdrawn areas and areas recommended for withdrawal limit activities that can affect relevant and important values.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Mineral materials/salable minerals (by higher likelihood, where the inner Dalton Utility Corridor and Ambler Road are higher likelihood)	Impacts are specific to the ACEC and are based on the impact that management action(s) would have on the relevant and important values of an ACEC.	Acres of undesignated ACECs in areas closed to mineral materials	Closing areas limits activities that can affect relevant and important values.
Recreation and visitor services: SRMAs and ERMAs	Impacts are specific to the ACEC and are based on the impact that management action(s) would have on the relevant and important values of an ACEC.	Acres of undesignated ACECs in SRMAs and ERMAs	SRMA and ERMA management can affect relevant and important values.
Travel, transportation management, and access	Impacts are specific to the ACEC and are based on the impact that management action(s) would have on the relevant and important values of an ACEC.	Acres of undesignated ACECs in OHV use areas	OHV use can affect relevant and important values.
Visual resources	Impacts are specific to the ACEC and are based on the impact that management action(s) would have on the relevant and important values of an ACEC.	Acres of undesignated ACECs in VRM classes	VRM classes can affect relevant and important values.
WSRs	Impacts are specific to the ACEC and are based on the impact that management action(s) would have on the relevant and important values of an ACEC.	Acres of undesignated ACECs in eligible or suitable segments/corridors	Protection of ORVs would indirectly protect relevant and important values where undesignated ACECs overlap the WSR study corridor.
WSAs	Impacts are specific to the ACEC and are based on the impact that management action(s) would have on the relevant and important values of an ACEC.	Acres of undesignated ACECs in WSAs	WSA management limits activities and would indirectly protect relevant and important values where undesignated ACECs overlap the WSA.

Impact Analysis Area
DIRECT/INDIRECT The analysis area for ACECs and RNAs includes each ACEC and RNA in the Central Yukon decision area. **CUMULATIVE** The cumulative impacts analysis area for ACECs and RNAs is the Central Yukon decision area.

Analysis Assumptions
• Although management actions for most resources and resource uses could have planning area-wide application, ACEC management prescriptions apply only to those lands in each specific ACEC, as outlined. • Authorized activities are assumed not to impair the relevant and important values for which an ACEC is designated. The exception is locatable minerals; until withdrawn from mineral entry, a mining claim can be filed, and subsequent mining could affect relevant and important values of the ACEC. Specific impacts on relevant and important values would depend on the type of mineral entry activity and the effectiveness of subsequent reclamation, and its interaction (both spatially and temporally) with that value. • Impacts resulting from locatable minerals would be subject to 43 CFR 3809, intended to (1) prevent unnecessary or undue degradation of the land and reclaimed disturbed areas, and (2) provide for maximum possible coordination with State agencies to avoid duplication and to ensure that operators prevent unnecessary or undue degradation of public lands. • ACEC designation provides protection and focused management for relevant values beyond those provided through general management of the parent resource (e.g., the cultural resource ACECs will receive greater recognition and protection than the general management action regarding cultural resources).

GIS Maps and/or Calculations
• ACEC summary report for BLM-managed lands in the planning area • GIS data of potential ACEC boundaries • Acres of lands not designated as an ACEC by alternative, with overlapping acreages of other land use allocations listed in the “Impact Indicator(s) (include unit of measure)” column in the third table above.

M.6.19 WSRs

Resource-specific Legal and Regulatory Constraints
• WSRs Act of 1968 • BLM Manual 6400, Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management

Resource Scoping Issues

• Some comments identified specific areas that should be closed to mining, such as the upper Chandalar River, the headwaters of the Dietrich and Atigun Rivers, ACECS, RNAs, WSAs, eligible WSRs, anadromous rivers, community drinking water aquifers, and lands upstream and adjacent to wildlife refuges.
• The BLM received approximately 28 comments about WSRs. These included comments supporting study and designation of new WSRs, and comments opposing any new study or designations. Those in opposition generally noted that there would already be enough WSRs, new designations contradict the ANILCA, and designation of rivers is unnecessary and would create too many restrictions on BLM-managed lands.
• The following rivers were mentioned in comments as being potentially eligible and suitable for inclusion in the National Wild and Scenic Rivers System (NWSR). Only a few comments identified ORVs for any of these rivers. The Melozitna River was identified for study by Section 604 of the ANILCA. The National Park Service completed a study report on the Melozitna River in 1982 and found that the river was not qualified because it lacked any ORVs. The Alatna and John Rivers within the Gates of the Arctic National Park are already designated as wild rivers.
  o Utility Corridor Subunit
  ▪ South Fork Koyukuk
  ▪ Jim River
  ▪ Atigun River
  ▪ Etivluk River
  ▪ Colville River
  ▪ Nigu River
  ▪ Alatna River
  o Middle Yukon Drainages Subunit
  ▪ Kanuti-Kilolitna River
  ▪ Tozitna River
  ▪ John River
  ▪ Melozitna River
  ▪ Hogatza River
  ▪ Chitanana River
  ▪ Dulbi River
  o Nulato Hills Subunit
  ▪ Kateel River
  ▪ Nulato River
  ▪ Tagagawik River
  ▪ Gisasa River
  ▪ Honhosa River

Analysis notes:

- The focus of the analysis would be on Alternatives C1, C2, D, and E where eligible rivers would not be found suitable. Analyze what would happen to the ORVs. Explain the de facto ORV protection that would happen without NWSR suitability or interim protection.
- ORVs would be protected under Alternatives A (eligible) and B (suitable) interim management.
- ORVs would be protected under both interim protection and NWSR designation. They would just be protected using different methods.
- Do not analyze impacts from fluid leasable minerals and non-energy solid leasable minerals, because there is no development potential.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Rivers eligible or suitable for the NWSR	Protection of ORVs	Miles of eligible or suitable rivers for the NWSR	Alternative A would protect ORVs associated with eligible rivers. Alternative B would protect ORVs associated with suitable rivers. Alternatives C1, C2, and D would not protect ORVs; this is because rivers would not be suitable for inclusion in the NWSR and would be released from the interim management protections afforded eligible segments.
Forestry: commercial timber development	Protection of ORVs	Miles of eligible or suitable rivers in areas closed to commercial timber development	Closing areas limits activities that can affect ORVs.
Lands and realty: ROW avoidance and exclusion	ROW avoidance and exclusion influences on or changes to ORVs	Miles of eligible or suitable rivers in ROW avoidance and exclusion areas	Include a table comparing ROW avoidance and exclusion areas for each eligible or suitable river segment/corridor.
Lands and realty: utility corridors	Utility corridors influence changes to ORVs.	Miles of eligible or suitable rivers in utility corridors	Utility corridors would allow activities that can affect ORVs (in corridors where utilities are colocated, if they overlap WSR segments, then they could affect ORVs).
Lands and realty: withdrawal	Protection of ORVs	Miles of eligible or suitable rivers in withdrawal	Withdrawals limit activities that can affect ORVs.
LWC	Protection of ORVs	Miles of eligible or suitable rivers in LWC	Protection of LWC can limit activities that can affect ORVs.
Locatable minerals (have GIS show by high, moderate, and low potential)	Protection of ORVs	Miles of eligible or suitable rivers in areas withdrawn from locatable mineral entry and areas recommended for withdrawal from locatable mineral entry	Withdrawn areas and areas recommended for withdrawal limit activities that can affect ORVs.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Mineral materials/salable minerals (have GIS show by higher likelihood, where the inner Dalton Utility Corridor and Ambler Road are higher likelihood)	Protection of ORVs	Miles of eligible or suitable rivers in areas closed to mineral materials	Closing areas limits activities that can affect ORVs.
Recreation and visitor services: SRMAs and ERMAs	SRMAs and ERMAs influence changes to ORVs.	Miles of eligible or suitable rivers in SRMAs and ERMAs	Include a table comparing SRMAs and ERMAs for each eligible or suitable river segment/corridor.
Travel, transportation management, and access	OHV class influences changes to ORVs.	Miles of eligible or suitable rivers in OHV use areas	Include a table comparing OHV use areas for each eligible or suitable river segment/corridor.
Visual resources	VRM class influences changes to ORVs.	Miles of eligible or suitable rivers in VRM classes	Include a table comparing the VRM classes for each eligible or suitable river segment/corridor.
ACECs	Protection of ORVs	Miles of eligible or suitable rivers in ACECs	ACECs limit activities that can affect ORVs.
WSAs	Protection of ORVs	Miles of eligible or suitable rivers in WSAs	WSAs limit activities that can affect ORVs.

Impact Analysis Area
DIRECT/INDIRECT Up to 4 miles of either side of the ordinary high-water mark of either the eligible or suitable rivers in the decision area. **CUMULATIVE** Up to 4 miles of either side of the ordinary high-water mark of either the eligible or suitable rivers in the planning area.

Analysis Assumptions
• All suitable stream segments under consideration for WSR designation will be managed under interim protective measures required by the WSR Act and BLM Manual 6400, Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management, until the ROD for this RMP is adopted. At that time, any stream segment not found suitable for inclusion in the NWSR would lose its interim protection. This procedure and the interim protective measures would ensure the values for which these river segments were found eligible and suitable are not compromised until Congress decides regarding designation. • If designation is not provided (i.e., if segments are found not suitable and released from further study under the WSR Act), provisions could still remain to protect these river corridors under a combination of existing plans and policies and actions proposed under the action alternatives of this RMP. These provisions protect streamside and riparian habitats, riparian and aquatic wildlife, water quality, and cultural and visual resources. The major difference between designation and non-designation is the legislative and, thus, lasting protection afforded designated streams. Decisions in this RMP, however, affect suitability only. Once a segment is determined suitable, only Congress can formally designate it as part of the NWSR. • The BLM would not permit any actions that would adversely affect the free-flowing condition, ORVs and adequate water quality to support those ORVs, or tentative classification of any of the segments, or that would result in the reduction of water quality to the extent that it would no longer support the ORVs. As such, implementing management actions in this RMP would not adversely affect eligible or suitable segments. As a result, there would not be impacts from other resources under alternatives with either eligible or suitable segments. Recognizing that, the analysis of impacts on eligible and suitable stream segments includes an evaluation of where management actions might be inconsistent with the tentative classification given to each suitable segment, as well as potential impacts on its ORVs or free-flowing condition. For Alternatives C1, C2, and D, in which segments are found not suitable and, thus, lose their interim protection, the impacts from other management prescriptions on the ORVs are analyzed. This is because the values for which the segments were found eligible would still be present.

GIS Maps and/or Calculations
• Eligible and suitable segments intersected with areas closed to resource uses, as listed in the “Impact Indicator(s) (include unit of measure)” column in the third table above.

M.6.20 Iditarod National Historic Trail (INHT)

Resource-specific Legal and Regulatory Constraints
• National Trails System Act of 1968, as amended (16 U.S.C. 1241–1251) • Omnibus Public Land Management Act of 2009 (16 U.S.C. 7201–7203) • NHPA of 1966, as amended (16 U.S.C. 470) • Alaska Historic Preservation Act (Alaska Statute 41.35.010–41.35.240) • Historic Sites Act of 1935, as amended (16 U.S.C. 461–467) • Land and Water Conservation Fund Act of 1965, as amended (16 U.S.C. 460I-4 through 460I-11) • Federal Advisory Committee Act of 1972, as amended (5 U.S.C. Appendix 2 1–16) • Department of Transportation Act of 1966, as amended (49 U.S.C. 1653(f)) • EO 13195, Trails for America in the 21st Century • Secretarial Order 3308, Management of the National Landscape Conservation System • Secretarial Order 3319, Establishment of a National Water Trails System • Departmental Manual, Part 710, National Rivers and Trails Systems • BLM Manual 1203, Delegation of Authority • BLM Manual 1601, Land Use Planning • BLM Manual 1626, Travel and Transportation Management • BLM Manual 6120, Congressionally Required Maps and Legal Boundary Descriptions for National Landscape Conservation System Designations • BLM Manual 6280, Management of National Scenic and Historic Trails and Trails Under Study or Recommended as Suitable for Congressional Designation • BLM Manual 8100, The Foundations for Managing Cultural Resources • BLM Manual 8320, Planning for Recreation and Visitor Services • BLM Manual 8353, Trail Management Areas – Secretarially Designated National Recreation, Water, and Connecting and Side Trails • BLM Manual 8400, VRM • BLM Handbook, 1283-1, Data Administration and Management • BLM Handbook 1601-1, Land Use Planning • BLM Handbook 1790-1, NEPA • BLM Handbook 8120-1, General Procedural Guidance for Native American Consultation • BLM Handbook 8342-1, Travel and Transportation Management • BLM Handbook 9114-1, Trails • Federal Geographic Data Committee, Federal Trail Data Standards, FGDC-STD-017-2011 • The National Landscape Conservation System 15-Year Strategy, 2010–2025: The Geography of Hope • BLM National Scenic and Historic Trails Strategy and Work Plan, 2006 • Trails for America: Report on the Nationwide Trails Study, 1966 • The National Trails System Interagency Memorandum of Understanding • Applicable trail-wide comprehensive plans

Resource Scoping Issues
• How should the BLM manage the segments of the INHT that are located on BLM-managed lands in the planning area? • Should the BLM consider additional trail improvements on sections of the trail that cross BLM-managed lands (e.g., more trail signage markers or tripods, additional shelter cabins, and educational signage)?

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Forest resources	• Potential degradation of INHT integrity • Direct impacts could result from actions that disturb the soil or alter characteristics of the surrounding environment. Impacts on characteristics of the surrounding environment are visual elements that are out of character with or alter the trail's setting. Erosion and downed trees along the trail and in the surrounding environment also would affect the trail.	Miles of INHT National Trail Management Corridor (NTMC) closed to forestry or commercial timber development and woodland harvest	Closing areas limits activities that can affect the integrity (e.g., setting, feeling, and association) or destruction of physical remnants of the INHT.
Wildland fire	• Potential degradation of INHT integrity • Direct impacts could result from actions that disturb the soil or alter characteristics of the surrounding environment. Impacts on characteristics of the surrounding environment are visual elements that are out of character with or alter the trail's setting. Erosion and downed trees along the trail and in the surrounding environment also would affect the trail.	Miles of INHT NTMC with direct and/or indirect impacts resulting in the loss of integrity (e.g., setting, feeling, and association) or destruction of physical remnants of a trail, including ruts, swales, and associated sites or artifacts, whether that loss results from erosion due to increased use, looting, or vandalism, which in turn results in a loss of archaeological information	Fire management activities can affect the integrity (e.g., setting, feeling, and association) or destruction of physical remnants of the INHT by using ground-disturbing vehicles or techniques.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Lands and realty: ROW avoidance and exclusion	Protection of INHT integrity	Miles of INHT NTMC in ROW avoidance and exclusion areas	• ROW exclusion and avoidance limit activities that can affect the integrity (e.g., setting, feeling, and association) or destruction of physical remnants of the INHT. • ROW authorizations in the trail's viewshed can change the visual or historic character of the trail and could contribute to a decrease in the overall trail quality.
Lands and realty: withdrawals	Protection of INHT integrity	Miles of INHT NTMC in withdrawal	Withdrawals limit activities that can affect the INHT integrity.
Lands and realty: utility corridors	Utility corridors influence changes to INHT integrity.	Miles of INHT NTMC in utility corridors	Utility corridors would allow activities that can affect the INHT's integrity. (Activities in corridors where utilities are colocated, if they overlap the INHT, could affect the INHT's integrity; however, they would protect INHT integrity outside the corridor, where utilities would not be placed.)
LWC	Protection of INHT integrity	Acres of INHT NTMC in LWC managed as a priority over other multiple uses	Protection of LWC can limit activities that can affect the INHT's integrity; it would indirectly protect INHT integrity where the INHT overlaps LWC managed as a priority over other multiple uses.
Locatable minerals (by high, moderate, and low potential areas)	Potential degradation of INHT integrity	Miles of INHT NTMC in areas withdrawn from locatable mineral entry and areas recommended for withdrawal from locatable mineral entry	Withdrawn areas and areas recommended for withdrawal limit activities that can affect the INHT's integrity.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Mineral materials/salable minerals	Protection of INHT integrity	Miles of INHT NTMC in areas closed to mineral materials	Closing areas limits activities that can affect the INHT's integrity.
Travel, transportation management, and access	Audible, pollution, and visual effects can diminish the integrity of the INHT's historic character.	Miles of INHT NTMC in areas open/limited/closed to OHV use	OHV use can affect the INHT's integrity.
Visual resources	Audible and visual effects can diminish the integrity of the INHT's historic character.	Miles of INHT NTMC (and buffers) and connector trails located in different VRM classes	VRM classes allow or limit activities that can affect the INHT's integrity.
ACECs	Protection of INHT integrity	Miles of INHT NTMC in existing or proposed ACEC boundaries	Some ACEC designations limit activities that can affect the INHT's integrity.

Impact Analysis Area
DIRECT/ INDIRECT The analysis area is the INHT on BLM-managed lands in the decision area (2.7 miles) **CUMULATIVE** The cumulative impacts analysis area is the INHT plus connector trails on all lands in the planning area (approximately 400 miles).

Analysis Assumptions
• National trails and related sites are protected in accordance with federal laws, BLM regulations and policy, and interagency or partnership agreements. Specifically, BLM Manual 6280 states that the BLM may not permit proposed uses along national trails that would substantially interfere with the nature and purposes of the trail. • The BLM will follow 36 CFR 800 and Section 106 of the NHPA when addressing federal undertakings; therefore, adverse impacts on the INHT would be appropriately mitigated. • Degradation of the national trail from natural processes (e.g., erosion) will continue regardless of avoidance of human-caused impacts. • Potential impacts on the INHT and its setting from subsequent undertakings (implementation of the planning decisions or site-specific project proposals) require separate compliance with NEPA and Section 106 of the NHPA.

GIS Maps and/or Calculations
• GIS data for the INHT • INHT NTMC viewshed • Acres of INHT by alternative, with overlapping acreages of other land use allocations, as listed in the four-column table above

M.6.21 Environmental Justice

Resource-specific Legal and Regulatory Constraints
• EO 12898 on environmental justice requires federal agencies to identify and address disproportionately high and adverse effects of its programs, policies, and activities on low-income and minority populations.
Resource Scoping Issues
Comments related to environmental justice included compliance with EO 12898; the potential for disproportionate impacts on Alaska Natives, particularly in light of the low salmon returns on the Yukon River; the complexity of the planning process; and the difficulty for the general public to engage in the planning process.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Actions that are described as having effects on subsistence (M.5.22) and social and economic conditions (M.5.23)	The types of effects listed in the subsistence and social and economic conditions sections.	The indicators listed in the subsistence and social and economic conditions sections.	Include a qualitative write-up based on the analyses of impacts described in the subsistence and social and economic conditions sections, to determine whether impacts are disproportionately negative for the environmental justice populations identified.

Impact Analysis Area

DIRECT/INDIRECT

This analysis utilizes the same impact analysis areas as described in the subsistence and social and economic conditions sections. The focus is on whether the 21 environmental justice communities identified are subject to disproportionate, negative impacts compared with other affected populations.

CUMULATIVE

Same as direct/indirect analysis area.

Analysis Assumptions

- Eighteen of the 30 communities within the planning area, or that could be affected by the plan, are considered low-income; 17 of the communities are considered minority populations due to the proportion of Alaska Natives. When considering both criteria (minority and poverty status), only 9 of the 30 communities are not considered to be environmental justice populations: Wiseman, Coldfoot, Bettles, Anderson, North Pole, Big Delta, Delta Junction, Healy, and Fairbanks.
- The goal of the environmental justice analysis is to determine whether impacts on low-income and minority populations are disproportionately negative. The primary impacts of concern are already identified in the subsistence and social and economic conditions sections. Therefore, the goal of the environmental justice analysis in this EIS is not to generate new impacts, but to assess whether the ones already identified are disproportionate and negative.

GIS Maps and/or Calculations

GIS Analysis/Data Tables

- The GIS analyses and data tables from the subsistence and social and economic conditions sections are applicable.

M.6.22 Subsistence

Resource-specific Legal and Regulatory Constraints

• ANILCA, particularly Title VIII
• ANILCA section 810(a) requires an evaluation of the effects on subsistence uses of any federal determination to "withdraw, reserve, lease, or otherwise permit the use, occupancy or disposition of public lands." As such, an evaluation of the potential impacts on subsistence under ANILCA section 810(a) must be evaluated for the CYRMP. ANILCA section 810(a) (16 U.S.C. 3120) requires that the evaluation include findings on the following three issues:
  o Effect of use, occupancy, or disposition on subsistence uses and needs
  o Availability of other lands for the purpose sought to be achieved
  o Other alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes
• ANILCA section 810—Determination if a significant restriction of subsistence uses and needs may result from any one of the alternatives, including their cumulative effects; the following factors in particular are considered in accordance with Instruction Manual 2011-008:
  o Abundance: The reduction in the availability of subsistence resources caused by a decline in the population or abundance of harvestable resources. This may include fish, wildlife, edible plants, house logs, firewood, or drinking water. Forces that might cause a reduction in abundance include adverse impacts on habitat, direct impacts on the resource, increased harvest, and increased competition from non-subsistence users.
  o Availability: Reductions in the availability of resources used for subsistence purposes caused by alteration of their distribution, migration patterns, or location
  o Access: Limitations on access to subsistence resources, including from increased competition for the resources, including physical and legal barriers
• ANILCA provides specific guidance on access for:
  o The use of snowmobiles, motorboats, and other means of surface transportation traditionally used for subsistence purposes by local residents on all federal public lands (Section 811). See ANILCA Section 102(3) for the definition of "public lands."
  o The use of snowmobiles, motorboats, airplanes, and non-motorized surface transportation methods for traditional activities on conservation system units, national recreation areas, and national conservation areas (Section 1110)
  o The BLM does not have regulations implementing the 811 public process to close or restrict the allowed use; however, the ANILCA Access section identifies a closure process for the BLM to follow if the ROD for a plan includes proposed restrictions or closures to subsistence access.
• ANILCA Section 804 Federal Subsistence Board. Subsistence uses shall be accorded priority over the taking of fish and wildlife for other purposes. The Federal Subsistence Board determines if it is necessary to restrict the taking of populations of fish and wildlife for subsistence uses in order to protect the continued viability of such populations, or to continue such uses.
• NEPA
• In accordance with the provisions of 42 U.S.C. 4332(2)(F), salmon will be accorded recognition as an international subsistence resource pursuant to the provisions of the Pacific Salmon Treaty of 1985 and those of the Yukon River Salmon Act of 2000, Public Law 106–450, 16 U.S.C. 5727 et seq., November 7, 2000.
• BLM Instruction Memorandum AK-2004-023, Alaska Land Health Standards and Guidelines
• BLM Instruction Memorandum AK-2011-008, Compliance with ANILCA section 810
• State of Alaska, Alaska Statute 16, Title 16 and Alaska Administrative Code, Title 5
• Federal Subsistence Hunting and Fishing Regulations (36 CFR 242 and 50 CFR 100)
• ADNR, Division of Mining, Land and Water has authority over mining in the State of Alaska.

Resource Scoping Issues
• Which areas on BLM-managed lands in the planning area are important for subsistence use? • How can the BLM protect resources that are important to maintaining a subsistence lifestyle? • What are the effects on subsistence uses and needs when lands are conveyed to the State since there is no federal rural subsistence priority on State lands? This was of particular concern along the Dalton Highway near Wiseman. • Are land uses damaging subsistence resources or harvest areas? If so, how can the BLM reduce impacts on subsistence from the land use activities it authorizes? • How can the BLM ensure continued access to subsistence resources? • Where would the subsistence, personal, and commercial harvesting of timber products (house logs, firewood, and saw logs) be allowed and under what conditions? • Where would the subsistence, commercial, and personal harvest of special forest products (e.g., mushrooms, berries, and bark) be allowed and under what conditions? • Transportation management and access decisions in the plan could lead to increased access to remote National Wildlife Refuge lands, affecting subsistence resources and increasing habitat degradation. • How can the BLM protect subsistence resources from the effects of mining, roads, and infrastructure? • The BLM should address the impacts of climate change on subsistence resources and practices. • How can the BLM best manage competing recreational and subsistence uses of resources?

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Wildlife • Caribou • Dall sheep	Direct effect on habitat; indirect effect on the availability of wildlife for subsistence use	• Acres and location of land that would be protected from invasive species or development • Acres of wildlife habitat in the planning area that would be protected by the requirement for mitigation	Include an introductory paragraph describing the management actions proposed and the areas affected, which will be shown on a map also showing the location of subsistence harvest areas. A table will show the acres affected across the alternatives, followed by an explanation of how subsistence uses would be affected by the actions (changes in availability or location of wildlife populations).

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Water, Fish, Riparian Vegetation, and Soils management actions	Direct effect on habitat; indirect effect on the availability of fish and wildlife for subsistence use	• Linear feet of stream protected/acres of land that would be protected from invasive species or development • Streams protected by instream flow reservations • Wetlands managed as ROW avoidance areas • Streams protected by stream channel design requirements for reclamation • Acres of floodplain protected from surface disturbance, leasing and development, and ROWs • Acres of lentic habitat protected from surface disturbance, leasing and development, and ROWs	Include an introductory paragraph describing the management actions proposed and the areas affected, which will be shown on a map. A table will show the streams/acres affected across the alternatives, followed by an explanation of how the actions would affect subsistence uses.
Forestry allocations	Direct effect on the availability of forestry products for subsistence use	Acres and location of land that would be under the prohibitions	Same as first row
LWC management	Indirect effect on the availability of subsistence resources	• Acres and location of LWC that would be open or closed to surface occupancy or mineral entry • Existing subsistence use of LWC	Same as first row
WSRs	Indirect effect on the availability of subsistence resources	Acres and location of land with existing, eligible, or suitable WSRs that would be open or closed to surface occupancy or mineral entry	Same as first row
ACECs	Indirect effect on the availability of subsistence resources	Acres and location of land in existing or proposed ACECs that would be open or closed to surface occupancy or mineral entry	Same as first row

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
WSAs	Indirect effect on the availability of subsistence resources	• Acres of WSAs that would be open or closed to surface occupancy or mineral entry • Existing subsistence use of existing or proposed WSA lands.	Same as first row
Vegetation • Forestry	Indirect effect on the availability of subsistence resources	• Acres of federal land in villages under each alternative that would be open to subsistence wood harvest activities • Existing use patterns for subsistence resources • Acres of land that would be open or closed to commercial or subsistence timber harvest	Same as first row

Lands and Realty
• Utility corridors
• Development nodes
• Land use authorizations and ROWs
• ROW provisions for wildlife/Source Water Assessment Resources
• Leases
• Withdrawals
  ○ Recommend revocation of PLO 5150
  ○ Recommend revocation of ANCSA 17(d)(1)s
	• Indirect effect on the availability of subsistence resources
	• The BLM will analyze the effects of revoking PLO 5150 on subsistence. The federal subsistence priority and access provisions in ANILCA Title VIII will apply to any lands in the corridor that remain in federal ownership.
		• Acres and location of land that would be open, restricted, or closed to surface disturbance
		• Location of proposed development nodes relative to subsistence resources
			Same as first row

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Travel and Transportation Management • ROWs • Summer OHV use • Over-snow travel limitations for BLM-authorized activities • Aircraft use	Indirect effect on the availability of subsistence resources	• Acres and location of land that would be restricted or unrestricted to travel or transportation use • Acres and location of land that would be open or closed to travel • Acres and location of area covered by aircraft use restrictions	Same as first row except the narrative portion will explain that the management actions may not show much effect on subsistence resources.
Fluid leasable minerals	Indirect effect on the availability of subsistence resources	Acres and location of land with fluid leasable mineral potential that would be open, open with restrictions, or closed to fluid minerals	Same as first row
Non-energy solid leasable minerals	Indirect effect on the availability of subsistence resources	Acres and location of land with non-energy solid leasable minerals potential that would be open, open with restrictions, or closed to non-energy solid leasable minerals	Determine and describe any overlap of potential resources with subsistence uses. Show overlap on a figure and acres by alternative in a table.
Locatable minerals	Indirect effect on the availability of subsistence resources	Acres and location of land with moderate or high mineral potential that would be open or closed to mineral entry	Same as first row
Mineral materials (salable minerals)	Indirect effect on the availability of subsistence resources	Acres and location of land with material minerals potential that would be open, restricted, or closed for mineral materials	Same as first row
Soils	Indirect effect on the availability of subsistence resources	Acres and location of land that would be open or closed to surface disturbance	Same as first row

Impact Analysis Area
DIRECT/INDIRECT The analysis area for subsistence includes the entire planning area. It would include an evaluation of the management decisions that could affect subsistence resources and thereby potentially affect subsistence harvest practices (e.g., vegetation, fish, large mammals, and small furbearers). **CUMULATIVE** The analysis area for cumulative impacts is the direct/indirect impact analysis area and also lands in the subsistence use areas of communities in the planning area.

Analysis Assumptions
• The BLM would continue to have a major role in the management of subsistence resources on public lands over the life of the plan. Competition for resources would increase, especially those that receive high use from all resource users. This is because more lands would be private, and recreational use of BLM-managed lands would increase. • The BLM will consider subsistence uses and minimize adverse impacts in accordance with ANILCA section 810. • The BLM will consider Department of the Interior guidance, Alaska Department of Fish and Game and U.S. Fish and Wildlife Service objectives, and Federal Subsistence Board requirements and mandates in decisions related to wildlife management. • As land conveyance to the State of Alaska and Native corporations is finalized, harvest of wildlife resources on State and Native corporation lands is regulated by general hunting regulations, and federal subsistence regulations would no longer be applicable. • Tribal members use Native, village corporation, State lands, and BLM-managed lands for traditional subsistence activities, and they would continue to do so. Subsistence use by other federally qualified residents in the planning area would continue on federal public lands. Federal public lands for the purpose of subsistence use are defined in 50 CFR 100, 100.4(1), and (2). • Subsistence harvest patterns and practices follow a seasonal round of harvest and would be expected to change and adapt over the course of the planning period based on management decisions. The analysis will be based on the most current rates of harvest data, seasonal round and areas of use, and traditional use areas. • Management decisions regarding climate change, travel management, outfitter guides, illegal harvest, landownership, management, access, and use of ACECs would also be evaluated in the context of how subsistence resources and harvest practices, including competition for resources, would be affected (ANILCA section 810).

GIS Maps and/or Calculations
• Map 1. Central Yukon Subsistence Use Areas by community. Map all resources by community and distinguish overlapping communities. Add Venetie data and National Wildlife Refuges. • Maps 2–4. Summary of Alaska Department of Fish and Game subsistence harvest areas and proposed management actions by alternative (mineral potential areas; locatable, leasable, and ROW avoidance areas; proposed withdrawals; and areas closed to non-subsistence use). Also add the Dalton Utility Corridor and Ambler Road corridor. • Map 5. Map showing overlap of ACECs with Alaska Department of Fish and Game subsistence harvest areas • Table 1. Acreage tables showing overlap of the layers in the subsistence harvest areas and management actions by alternative

M.6.23 Social and Economic Conditions

Resource-specific Legal and Regulatory Constraints
• NEPA requires consideration of the effects of major federal activities on the human environment, including economic and social values. • FLPMA directs multiple use management in balancing environmental and social values. It requires integration of physical, biological, economic, and other sciences. Regulation requires consideration of social, economic, and institutional data. • BLM Land Management Planning Handbook, Appendix D • BLM Instruction Memorandum 31013-131 describes when and how to consider nonmarket values when preparing NEPA analyses for BLM resource management planning and other decision-making. The instruction memorandum directs BLM managers to use estimates of nonmarket environmental values in NEPA analysis supporting planning and other decision-making where relevant and feasible, and to include at least a qualitative description of the most relevant nonmarket values for the affected environment and the impacts of alternatives in NEPA analyses. • EO 12898 on environmental justice requires federal agencies to identify and address disproportionately high and adverse effects of its programs, policies, and activities on low-income and minority populations.

Resource Scoping Issues
The issue identified from scoping speaks to concerns about effects on specific resources and related uses; it does not identify any specific economic issues. Economic issues are addressed in respect to potential economic effects on environmental justice communities. This may be approached by considering effects on low-income households and communities, such as management actions that may affect the cost of living, jobs and labor income, and delivery of public services. The remote, rural nature of the planning area defines the economic structure of Alaska's rural communities, who rely on a mixed-rural economy comprised of subsistence and cash incomes. While many of the metrics considered relate to impacts on the cash economy, it is important to understand the formal economy is highly limited in its development and provides an important but limited role in supporting rural livelihoods. This analysis, along with the subsistence analysis, would provide a basis for the consideration of effects on social values and sociocultural systems and to make a determination related to environmental justice communities.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Lands and Realty ROW exclusion areas	**Jobs and labor income** Management actions, such as ROW exclusions, that occur within close proximity to a community may increase the costs of infrastructure development and service delivery.	Acres of ROW exclusions within 20 miles of communities	Consider the ROW avoidance and exclusion areas within 20 miles of communities in the planning area that could require long reroutes; these could increase the cost of infrastructure development and discourage economic development.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Lands and Realty Recommendation for revoking of PLO 5150	**Jobs and labor income from locatable mineral development** From locatable mineral development in the inner corridor of the Dalton Highway Corridor Management Area.	Acres of State-selected and top-filed land ranked as high mineral potential for locatable mineral developments identified as a number one priority for conveyance by the State where PLO 5150 would be revoked.	Highlight the greatest likelihood of economic development and impacts in the planning area by alternative.
Recreation Effects on types of recreation opportunities and the quality of the recreation opportunity	**Jobs and labor income due to tourism for sport hunting and fishing** Within the services sector, food services and accommodations account for the largest portion of jobs within the boroughs affiliated with Fairbanks. Management direction that may influence recreation visitation and distribution may affect the amount of jobs and labor income from recreation expenditures in the planning area.	Distribution of high-quality sport hunting and fishing recreation opportunities. Effects on large game species and fish habitat in the Dalton Utility Corridor.	Tier to the effects on large game and fish habitat within the Dalton Utility Corridor watershed. Where appropriate, identify which communities would likely be indirectly affected by changes in visitation or distribution of visitation. Only discuss communities associated with recreation opportunities where there may be a reasonably predictable change in the supply or demand for recreation opportunities. Discuss related economic impacts related to jobs and labor income.

Action Affecting Resource	Type of Impact	Impact Indicator(s) (include unit of measure)	Analysis Write-up
Travel Management Restrictions on motorized travel (not for subsistence)	**Subsistence livelihoods and costs of living due to effects on interregional trade and increased fuel needs** Restricting motorized travel within close proximity to communities or on traditional routes supporting intercommunity travel would increase the distance, time, and effort required to procure subsistence resources or redistribute such resources.	• Acres of summer OHV exclusion within 20 miles of communities and subsistence use areas • Acres of limited travel for OHV (May and June) within 20 miles of communities and subsistence use areas	Identify communities where travel restrictions may impede interregional trade or increase the distance and associated resources to support travel by impeding direct routes.
Lands and Realty Recommendation to revoke PLO 5150	**Subsistence livelihoods and cost of living** The revoking of PLO 5150 in the Dalton Utility Corridor would reduce motorized access for subsistence purposes and the use of firearms, increasing the burden of effort and time to procure subsistence resources; this would increase the cost of living.	Acres of priority subsistence access for Wiseman and Coldfoot in the Dalton Utility Corridor.	Describe how the revoking of PLO 5150 would affect household costs for Coldfoot and Wiseman residents.
Subsistence Abundance Actions affecting access, abundance, and availability of subsistence resources	**Subsistence livelihoods and cost of living** Management actions that may degrade habitat conditions for subsistence fish and game may affect the abundance of subsistence resources and, therefore, the effort, time, and fuel required to procure subsistence resources, or the need to secure resources through markets rather than subsistence.	• Effects on caribou and Dall sheep populations within the Dalton Utility Corridor (see **Appendix P**) • Subsistence report determinations for effects due to management actions related to lands and realty, and minerals	Further describe how effects on subsistence abundance would affect household costs.

Impact Analysis Area
DIRECT/INDIRECT This analysis considers the spatial distribution of direct and indirect effects on the economic character of communities in the planning area. The planning area overlaps portions of the Northwest Arctic Borough, the North Slope Borough, the Denali Borough, the FNSB, and the Southeast Fairbanks Census Area; the analysis considers effects across 24 subsistence use communities and 7 non-subsistence use communities, including Fairbanks, Ester, Healy, Big Delta, Delta Junction, McKinley Park, and North Pole. The 24 subsistence use communities are Alatna, Allakaket, Anaktuvuk Pass, Arctic Village, Bettles, Coldfoot, Evansville, Galena, Hughes, Huslia, Kaltag, Koyukuk, Lake Minchumina, Manley Hot Springs, Minto, Nenana, Nuiqsut, Nulato, Rampart, Ruby, Stevens Village, Tanana, Venetie, and Wiseman. **CUMULATIVE** Same as direct/indirect analysis area

Analysis Assumptions
• This analysis incorporates community descriptions, assumptions, and determinations described in the subsistence section, **Appendix Q**. • The most intense community subsistence gathering pressure from rural residents radiates 20 miles from villages. There are also larger geographic regions where communities traditionally harvest subsistence resources when conditions permit access. Effects on access are considered in respect to how they may affect costs related to travel for subsistence purposes. • Recreation visitation will be similar across all alternatives regardless of the designation of a BCA, ERMA, SRMA, or no designation. • Personal use wood and biomass collection on conveyed lands would continue to be allowed by the State and Native corporations. • Fuel prices are driven by national and international market trends, state distribution channels and related costs, and local retailer costs. A review of the literature on Alaska's fuel markets (Szymoniak et al. 2010) did not reveal any market mechanisms on fuel prices that could be affected by the CYRMP management decisions. • Short term in this context is 10 years. Ten years is the anticipated time frame for State top-filed lands identified as the State's priority 1 and 2 to be conveyed to the State. The time frame for conveyance of State-selected lands identified as Priority 3 and 4 is highly speculative and is assumed to be beyond the life of the plan. • It is assumed that the State would facilitate mineral production on newly acquired State lands within the inner corridor during the life of the plan.

GIS Maps and/or Calculations
GIS Analysis/Data Tables • Acres by community where seasonal and summer motorized travel are restricted within 20 miles of the planning area's 24 communities or within subsistence use areas • Acres by community of lands closed to mineral materials entry within 20 miles of the planning area's 24 communities • Acres of ROW exclusions within 20 miles of 24 communities in the planning area (by community) • Acres of ROW avoidance areas within 20 miles of 24 communities in the planning area (by community) • Acres of land where personal or subsistence wood and biomass collection are prohibited within 20 miles of communities • Acres of land where mineral materials sales and disposals are prohibited within utility corridors • Acres of land ranked as high or medium potential for locatable minerals in the inner corridor identified by the State as the Priority 1 and 2 for conveyance, where PLO 5150 will be recommended for revocation • Acres of priority subsistence access for residents of Wiseman and Coldfoot in the Dalton Utility Corridor

M.7 REFERENCES

ADCCED (Alaska Department of Commerce, Community, and Economic Development). 2018. Economic Impact of Alaska's Visitor Industry 2017. Prepared by McDowell Group. Published November 2018. Internet website: https://www.commerce.alaska.gov/web/Portals/6/pub/TourismResearch/VisitorImpacts2016-17Report11_2_18.pdf?ver=2018-11-14-120855-690.

Bainbridge, D.A. 2007. A Guide for Dryland Restoration: New Hope for Arid Lands. Island Press, Washington, DC.

BLM (U.S. Bureau of Land Management). 1998. Manual 1613, Areas of Critical Environmental Concern. Rel. 1-1541. BLM, Washington, DC. September 29, 1988.

_____. 2008. BLM National Environmental Policy Act. Handbook H-1790-1. Rel. 1-1710. BLM Washington Office. January 30, 2008.

_____. 2012a. Manual 6310, Conducting Wilderness Characteristics Inventory on BLM Lands. Rel. 6-129. BLM, Washington, DC. March 15, 2012.

_____. 2012b. Manual 6320, Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process (Public). Rel. 6-130. BLM, Washington, DC. March 12, 2012.

Boggs, K., L. Flagstad, T. Boucher, T. Kuo, D. Fehringer, S. Guyer, and M. Aisu. 2016. Vegetation Map and Classification: Northern, Western, and Interior Alaska. Alaska Center for Conservation Science, University of Alaska-Anchorage.

CEQ (Council on Environmental Quality). 1997. Considering Cumulative Effects Under the National Environmental Policy Act. January 1997. Internet website: https://ceq.doe.gov/docs/ceq-publications/ccenepa/exec.pdf.

_____. 2005. Guidance on the Consideration of Past Actions in Cumulative Effects Analysis. Executive memorandum to all federal agencies. Washington, DC. June 24, 2005. Internet website: https://www.energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-CEQ-PastActsCumulEffects.pdf.

DEQ (Department of Environmental Conservation) Division of Air Quality. 2015. Alaska Enhanced Smoke Management Plan for Planned Fire Procedures Manual. Prepared for the Alaska Wildland Fire Coordinating Group. June 3, 2015. Internet website: https://fire.ak.blm.gov/content/admin/awfcg_committees/Air%20Quality%20and%20Smoke%20Management/Final%20ESMP.pdf.

Flagstad L., A. Steer, T. Boucher, M. Aisu, and P. Lema. 2018. Wetlands across Alaska: Statewide wetland map and assessment of rare wetland ecosystems. Alaska Natural Heritage Program, Alaska Center for Conservation Science, University of Alaska-Anchorage.

Interagency Standards for Fire and Fire Aviation Operations Group. 2020. Interagency Standards for Fire and Fire Aviation Operations – Redbook 2020. NFES 2724. National Interagency Fire Center, Boise, Idaho. January 2020. Internet website: https://www.nifc.gov/policies/pol_ref_redbook.html.

Lindsey, K.D. 1986. Paleontological Inventory and Assessment of Public Lands. Administered by the BLM, State of Alaska, Contract #AK 950CT5-15. On file at the BLM Central Yukon Field Office Fairbanks, Alaska.

NRCS (Natural Resources Conservation Service). 1998. National Forestry Manual. 190-V-NFM. September 1998. Internet website: https://efotg.sc.egov.usda.gov/references/public/VA/nationalforestrymanual.pdf.

Szymoniak, N., G. Fay, and A. Villalobos-Melendez. 2010. Components of Alaska fuel costs: An analysis of the market factors and characteristics that influence rural fuel prices. Institute of Social and Economic Research, Anchorage, Alaska.

M.8 GLOSSARY

100-year floodplain. The area inundated by the 100-year flood or the 1 percent annual exceedance probability flood. It is the flood that has a 1 percent chance of being equaled or exceeded in any single year. It is often mistakenly thought of as the flood that occurs once every 100 years. In actuality, if a project is within the 100-year floodplain and the project life is expected to be 30 years, it would have a 25 percent chance of experiencing flood damage due to a 100-year flood. For a project with an anticipated life of 15 years, the chance of incurring flood damage due to a 100-year flood would be 14 percent.

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 that need protection.

acquisition. Acquisition of lands can be pursued to facilitate various resource management objectives. Acquisitions, including easements, can be completed through exchange, purchase, or donation.

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 Alaska 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.

ambient air quality standard. Air pollutant concentrations of the surrounding outside environment that cannot legally be exceeded during fixed time intervals and in a specific geographic area.

analysis area. Any lands, regardless of jurisdiction, for which the BLM synthesizes, analyzes, and interprets data and information that relates to planning for BLM-managed lands. Analyses that extend beyond the planning area boundary allow management decisions to be made within the context of overall resource conditions and trends within the surrounding area, considering local, state, other federal, and tribal plans. Examples of such information include the relative significance of BLM-managed lands for a certain resource (such as a threatened or endangered species), or the anticipated impacts on resources (such as air quality and socioeconomics) based on activities on BLM-managed lands. The analysis areas can be any size, can vary according to resource, and can be located anywhere within, around, partially outside, or completely outside the planning or decision areas.

anthropogenic. Effects, processes, objects, or materials 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.

areas of critical environmental concern (ACEC). Special area designation established through the BLM's land use planning process (43 CFR 1610.7-2) where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources; or other natural systems or processes, or to protect life and safety from natural hazards. The collaborative planning process establishes the level of allowable use within an ACEC. Designation of an ACEC allows for resource use limitations in order to protect identified resources or values.

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.

baseline. The preexisting condition of a resource, at all relevant scales, which can be quantified by an appropriate metric(s). During environmental reviews, the baseline is considered the affected environment that exists absent the project's implementation; it is used to compare predictions of the effects of the proposed action or a reasonable range of alternatives.

BEACONS benchmark. A benchmark derived using the Boreal Ecosystem Analysis for Conservation Networks model.

benchmarks. Benchmark areas are intact, hydrologically connected areas large enough to accommodate natural disturbance regimes.

best management practices (BMPs). A suite of techniques that guide, or may be applied to, management actions to aid in achieving desired outcomes.

bluff. A high bank or bold headland, with a broad, precipitous, sometimes rounded cliff face overlooking a plain or body of water, especially on the outside of a stream meander; e.g., a river bluff**.**

climate change. Any significant and extended (over decades or longer) change in measures of climate (such as temperature, precipitation, or wind regimes). Climate change may result from natural factors, natural processes, and human activities that change the atmosphere's composition and the land surface.

Code of Federal Regulations (CFR). A codification of the general and permanent rules published in the *Federal Register* by the Executive Departments and agencies of the federal government. The Code is divided into 50 titles that represent broad areas subject to federal regulation. Each volume of the Code is revised at least once each year and issued on a quarterly basis.

connectivity corridors. Components of a landscape that facilitate the movement of matter, energy, and/or organisms between elements of the landscape.

conservation system unit (CSU): ANILCA defines a CSU as any Alaska unit of National Park System, National Wildlife Refuge System, National Wild and Scenic Rivers System, National Trails System, National Wilderness Preservation System, or a National Forest Monument.

conveyed. Title to land transferred from one party to another. The United States conveys title to land to Native corporations by patent and interim conveyance and to the State of Alaska by patent and tentative approval.

Dall sheep habitat area. BLM-managed lands identified as having the highest habitat conservation value in relation to Dall sheep.

Dall sheep movement corridor. BLM-managed lands identified as having significant value to Dall sheep for accessing seasonal ranges, mineral sources, forage habitat, and escape terrain.

Dall sheep study area. The remainder of the planning area that is known to be inhabited by Dall sheep but is not identified as a Dall sheep habitat area or Dall sheep movement corridor.

decision area. The BLM-managed lands within the planning area where decisions will apply.

dispersed recreation. Recreational activities of an unstructured type that are not confined to specific locations such as recreation sites. Examples of these activities may be hunting, fishing, off-road vehicle use, hiking, and sight-seeing.

disturbance. Alteration of the vegetative cover or ground surface. Human disturbance is caused by human-initiated activities such as clearing, excavation, or introducing sources of invasive species. Natural disturbance is caused by natural events such as lightning-caused wildfires or windstorms.

eligible river. A river or river segment found to meet criteria in Sections 1(b) and 2(b) of the Wild and Scenic Rivers Act of being free flowing and possessing one or more Outstandingly Remarkable Value (BLM Manual 6400, Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management).

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.

executive order (EO). 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 and guidelines for its administration, and to 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 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

fugitive dust. Particles suspended randomly in the air, usually from road travel, excavation, or rock loading operations.

greenhouse gas (GHG). A gas that absorbs and emits thermal radiation in the lowest layers of the atmosphere. This process is the fundamental cause of the greenhouse effect. The primary greenhouse gases that are considered air pollutants are carbon dioxide, methane, nitrous oxide, and chlorofluorocarbons.

habitat. The physical space in which a plant or animal lives, and the abiotic and biotic entities (e.g., resources) it uses and selects in that space.

harvest (with respect to timber and woody vegetation). Removing vegetative material for the purpose of selling, bartering, or using the materials, or for manipulating the vegetative structure for an intended outcome. Harvest, as used herein, does not include stripping vegetation to develop an authorized mining operation or mineral materials site where overburden is required to be stockpiled and reused for reclamation. Harvest, as used herein, does not include wanton injury or destruction of plants, or taking of plant materials that are wasted.

hazardous air pollutants. Also known as toxic air pollutants, they are those that cause or may cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental and ecological effects. The Environmental Protection Agency is required to control 187 hazardous air pollutants, including volatile organic compounds, heavy metals, and persistent bio-accumulative toxins. The most widespread volatile organic compounds commonly analyzed are benzene, ethylbenzene, toluene, xylene, n-hexane, and formaldehyde.

hydrologic regime. Variations in the state and characteristics of a waterbody that are regularly repeated in time and space and that pass through phases (e.g., seasonal).

landscape. An entity with structural elements of patch, mosaic, and corridor, reflecting a mix of ecosystems, habitats, and land uses.

landscape connectivity. The degree to which landscape components facilitate or impede movement of matter, energy, and/or organisms within and between elements of the environment.

lentic areas. Wetlands or riparian areas with standing water habitat, such as lakes, ponds, seeps, bogs, and meadows.

minimize. To reduce harmful effects to a level that does not have significant adverse effects on wildlife populations or their habitat in the planning area or significantly reduces public opportunity for successful harvest and/or nonconsumptive use of wildlife.

mitigation. Includes avoiding the impact altogether by not taking a certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and compensating for the impact by replacing or providing substitute resources or environments (40 CFR 1508.20).

National Ambient Air Quality Standards (NAAQS). The Clean Air Act requires the U.S. Environmental Protection Agency to set national ambient air quality standards (codified in 40 CFR 50) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies two types of national ambient air quality standards: Primary standards provide public health protection, including protecting the health of sensitive populations, such as asthmatics, children, and the elderly; secondary standards protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. The EPA has set standards for six principal pollutants (see criteria air pollutants, above). Periodically, the standards are reviewed and may be revised.

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, that may have some development along their shorelines, and that 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 shorelines essentially primitive and waters unpolluted.

no surface occupancy (NSO). A fluid minerals leasing constraint that prohibits occupancy or disturbance on all or part of the lease surface to protect special values or uses. Lessees may exploit the fluid mineral resources under the leases restricted by this constraint through use of directional drilling from sites outside the NSO area.

objective. A description of a desired outcome for a resource.

outcome. A clearly defined and measurable result that reflects the desired condition of a resource.

outstandingly remarkable value (ORV). Values among those listed in Section 1(b) of the Wild and Scenic Rivers Act of 1968: "Scenic, recreational, geological, fish and wildlife, historical, cultural, or other similar values. . ." Other similar values that may be considered include ecological, biological, or botanical.

paleontological resource. Any fossilized remains or traces of organisms that are preserved in, or on, the earth's crust, that are of scientific interest, and that provide information about the history of life.

permafrost. Soil, sand, gravel, or bedrock that has remained below 32 degrees Fahrenheit for two or more years.

planning area. The geographic area within which the BLM will make decisions during a planning effort. A planning area boundary includes all lands regardless of jurisdiction; however the BLM will only make decisions on lands that fall under the BLM's jurisdiction (including subsurface minerals). Unless the State Director determines otherwise, the planning area for an RMP is the geographic area associated with a particular field office (43 CFR 1610.1(b)). State Directors may also establish regional planning areas that encompass several field offices or states, or both, as necessary.

pollutant. Any substance introduced into the environment that adversely affects the usefulness of a resource or the health of humans, animals, or ecosystems.

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. Also known as a prescribed burn.

priority species. Species in the planning area that are recognized as significant for at least one factor, such as density, diversity, size, public interest, remnant character, or age (BLM Handbook 1601).

public land use. The occupancy, use, development, or traversing of BLM-managed surface or mineral estate; may be BLM proposed or externally proposed.

research natural area. A land management status that reserves the area for uses that are compatible with the resource of interest and research for which the area was designated.

resources (and their values, services, and/or functions). Natural, social, or cultural objects or qualities; resource values are the importance, worth, or usefulness of resources; resource services are the benefits people derive from resources; and resource functions are the physical, chemical, and/or biological processes that involve resources.

riparian. Relating to or situated on the banks of a river.

riparian vegetation. Vegetation, habitats, or ecosystems that are associated with bodies of water (streams or lakes) or that depend on the existence of perennial, intermittent, or ephemeral surface or subsurface water drainage.

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

sensitive soils. Those mapped by the BLM to be in one of the following categories: steep slopes, thaw-sensitive permafrost, or wetland soils or those that are highly susceptible to erosion or that have high moisture content.

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 and maximum width of 50 inches or less, is 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 status species. All species that are under status review, have small or declining populations, or live in unique habitats. May also be any species requiring special management. Sensitive species include threatened, endangered, or proposed species as classified by the U.S. Fish and Wildlife Service, or species designated by a State wildlife agency as needing special management (Instruction Memorandum AK 2004-23).

subsistence uses. The customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible by-products of fish and wildlife resources taken for personal or family consumption; for barter or sharing for personal or family consumption; and for customary trade. This includes any use of surface use transportation as a means of access to subsistence resources as provided for under Alaska National Interest Lands Conservation Act (ANILCA) Section 811 and/or ANILCA Section 1110.

suitable river. An eligible river segment found through administrative study to meet the criteria for designation as a component of the National Wild and Scenic Rivers System, as specified in Section 4(a) of the Wild and Scenic Rivers Act (BLM Manual 6400, Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management).

surface disturbance. See surface-disturbing activities.

thaw-sensitive permafrost. Permafrost soils with temperatures near 32 degrees Fahrenheit during the growing season.

thermokarst. Land surface characterized by very irregular surfaces of marshy hollows and small hummocks formed as ice-rich permafrost thaws.

threatened and endangered species. Plant or animal species listed by the U.S. Fish and Wildlife Service pursuant to the Endangered Species Act as either in danger of becoming extinct or threatened to the degree that their continued existence as a species is in question.

timber. All woody vegetation 5 inches in diameter at breast height or larger shall be classified as timber. By industry convention, diameter at breast height is the diameter outside bark measured 4.5 feet above ground level. This convention will be the standard for timber size for this RMP.

top-filed. Section 906(e) of ANILCA gave the State of Alaska the right to make "top-filings" (future selection applications) for its land entitlement selections subject to valid existing rights and Native selection rights under ANCSA. Native selection rights could include individual Native allotees as well as Village and regional corporations. A top-filing makes the State's claim to land, "fourth in line" as a contingent selection. A valid

existing right would also include any federal administrative withdrawals, such as the ANCSA PLOs being discussed herein. "Top-filings" prevent the land's adjudication as a "first in line" entitlement selection since they are a future interest and not counted toward the State's total land entitlements. However, once Native selection rights under ANCSA are finalized or the withdrawal is revoked, the State's selection would automatically attach to the land as a selection and be ready for adjudication.

unmanned aircraft systems. Unmanned aircraft systems are an all-encompassing term for everything that makes a drone/unmanned aerial vehicle operate: the ground control station with pilot, communications, support equipment, etc.

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

wilderness characteristics. These include the area's size, its apparent naturalness, and outstanding opportunities for solitude or a primitive and unconfined type of recreation and may also include supplemental values. Lands with wilderness characteristics are those that have been inventoried and determined by the BLM to possess wilderness characteristics, as defined in Section 2(c) of the Wilderness Act.

wildland fire. General term describing any non-structure fire in the wild. It is categorized into two distinct types: wildfires (unplanned ignitions or prescribed fires that are declared wildfires) and prescribed fires (planned ignitions).

woody vegetation. All perennial plant species characterized by structural support provided by secondary xylem and stems covered by a layer of bark, regardless of size. Woody vegetation includes timber, but also other vegetation that does not meet the size requirements to be classified as timber.

M.9 SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Resource, Resource Use, and Special Designation	Impact Summary
Air quality and climate	Over the life of the RMP, the air quality in the planning area is not expected to substantially change. There may be temporary effects from wildland fires and prescribed burns, which would continue as the primary air quality concern for most of the planning area. There would be additional localized impacts from mineral development and road and pipeline development in ROW corridors. Implementing standard operating procedures, required design features, and mitigation measures and adhering to air regulations and permit requirements would reduce the potential of any pollutants from BLM-authorized activities to violate the NAAQS or AAAQS. Air quality would be maintained over the life of the project under all action alternatives, with the most potential for improvement under Alternatives B and E due to the lowest acreages open to mineral development. Those alternatives also would likely have the fewest GHG emissions, because of restrictions on mineral development and ROW location, followed by Alternative C1 and then Alternatives C2, A, and D.

Resource, Resource Use, and Special Designation	Impact Summary
Soil resources	Surface mining, development, and OHV use along the Dalton Utility Corridor pose risks to soil resources in the planning area, including steep slopes, thaw sensitive permafrost, and wetland soils. Recreational and industrial OHV use would be focused along the Dalton Utility Corridor, with impacts on wetland soils and thaw-sensitive permafrost, where ground vegetation cover is removed. The proposed Amber and Umiat utility and transportation corridors could also increase impacts on soils resources in these areas. Overall, most of the planning area would remain in near undisturbed condition, with little to no anthropogenic impacts; 84 percent of BLM-managed lands in the planning area are outside of the Dalton Utility Corridor. Along the Dalton Utility Corridor, Alternative B would provide the most protection from surface mining, surface disturbance, and OHV use, followed by Alternative E and to a lesser degree C1. Alternatives A, C2, and D would provide the least protection.
Water resources	Surface mining, road crossings, and OHV use along the Dalton Utility Corridor pose the greatest risks to water resources, including floodplains, lentic areas, and high-value watersheds, in the planning area. The proposed Ambler and Umiat utility and transportation corridors and recreational and industrial OHV use would occur along the Dalton Utility Corridor. The impacts would be at stream crossings and on riparian vegetation. Overall, most of the planning area would remain in undisturbed condition, with little to no impacts from humans on water resources; 84 percent of BLM-managed lands in the planning area are outside of the Dalton Utility Corridor. Along the Dalton Utility Corridor, Alternative B would provide the most protection from surface mining, road crossings, and OHV use, while Alternatives A, C2, and D would provide the least protection to water resources. Alternatives C1 and E emphasize an approach of balancing resource protection and resource development.
Vegetation communities	BLM-authorized activities that pose risks for removal, degradation, and modification of vegetation communities in the planning area, as well as introduction and spread of nonnative, invasive species, are extraction of locatable minerals (primarily in areas of high mineral potential), mineral materials disposal, recreational access, and ROW location. Alternative B has the fewest acres open to these activities, as well as more plan components to preserve special status species (SSS) plants and unique ecosystems, compared with other alternatives. Alternative D has the greatest number of acres open to potential surface disturbance activities, with less stringent vegetation survey requirements and fewer restrictions on ROWs; therefore, it would be most likely to result in impacts on upland vegetation communities and SSS plant species. Alternative A has similar areas open to activities as Alternative D; however, it does not require SSS or vegetation surveys and does not contain plan direction to address the impact of nonnative invasive species. The potential impacts from Alternative C2 would be similar to those from Alternative D, except that ROW avoidance areas around pingos and hot springs might reduce impacts on rare vegetation communities and SSS upland species. Alternative E would contain more restrictive management direction than Alternative A in all allocations analyzed, though management directions are not as restrictive as under Alternative B. Alternatives E and C1 fall between Alternative B and Alternatives A and D with respect to potential impacts on upland vegetation communities and SSS plant species.

Resource, Resource Use, and Special Designation	Impact Summary
Wetland resources	Locatable mineral extraction, ROWs, and mineral materials disposal would potentially result in permanent loss of wetlands and waters of the U.S. and for degradation of function due to indirect effects. Jurisdictional wetlands and waters of the U.S. are estimated to comprise 17 percent of the decision area; thus, most development projects would be expected to have unavoidable wetland impacts. Avoidance and minimization strategies are required in project design to mitigate overall impacts. Most of the decision area remains remote and inaccessible by road, which would likely deter extensive development; nevertheless, the health and function of wetlands in the area is expected to slowly decline, primarily from climate change. Alternative A would have the fewest acres available for locatable mineral development, followed closely by Alternative E, so they would be the least likely to have impacts on riparian-wetland resources, followed by Alternatives B, C1, and then Alternatives C2 and D.
Fish and aquatic species	There are varying numbers of stream miles that are designated as anadromous (Anadromous Waters Catalog) that could be affected by resource extraction opening as designated by alternative (e.g., fluid mineral, locatable mineral, or mineral material entry). The designation as anadromous waters or essential fish habitat waters would provide each alternative with equal state and federal regulatory oversight of potential impacts from development. Oversight would come under State of Alaska fish habitat protection and the federal government's Magnuson-Stevens Fishery Conservation and Management Act habitat protections. Alternatives C1, C2, and D would affect the largest overall proportion of anadromous waters in the planning area. Alternatives C2 and D would have the most impacts associated with locatable and fluid mineral extraction in the planning area. Alternative D would provide for the smallest percentage of acreage protected by ACEC/RNAs, followed by Alternatives C2, C1, A, E, and B. Alternative B ultimately would provide for the greatest level of protection for fish and aquatic resources due to the greatest area of ACECs/RNAs in fish and aquatic habitats. Additionally, only Alternative B would protect waterbodies associated with LWCs. Alternative B would open the fewest acres of lands to fluid mineral actions, locatable mineral actions, and material mineral disposal of high-value watersheds.
Wildlife	Much of the planning area is remote, with little development and relatively undisturbed wildlife habitat. This is likely to remain the case for most of the planning area under all alternatives, but climate change is likely to have large impacts on wildlife during the life of this plan. Combined impacts from climate change and development are difficult to predict and add considerable uncertainty to estimated impacts. Potential ROW projects could have large effects on the distribution of human activity, and large- and small-scale mining activity could affect wildlife on a local scale. The distribution of caribou and Dall sheep is limited in the planning area, and these species are sensitive to disturbance during at least part of the year; therefore, those two species may be most affected by the differing management regimes among alternatives. Alternative B would have the fewest acres available for mineral and ROW development and thus is least likely to have impacts on wildlife. It is followed by Alternatives E and C1, which have protective measures specifically targeting areas important to Dall sheep. Alternative C2 has some protections for core caribou ranges but limited protections for Dall sheep habitat. Finally, Alternative D opens to development the most areas important to priority wildlife species of all alternatives.

Resource, Resource Use, and Special Designation	Impact Summary
Wildland fire ecology and management	All alternatives would have management decisions around forestry that would follow existing BLM directives and would comply with EO 13855. There would be no acres where fuels treatments would be prohibited; the ability to use commercial timber harvest as a tool for fuels management is restricted in varying ways by the five action alternatives. Alternative B is the most restrictive regarding commercial timber sales, followed by Alternatives C1, E, C2, and D. The action alternatives would potentially slow development due to varying levels of increased restriction on human activity; thus, the potential for human-caused fires would likely grow at the slowest rate in Alternative B, then Alternatives E, C1, C2, and then Alternative D.
Cultural resources	Overall, cultural resource review, compliance, and consultation procedures would continue under all alternatives. Proactive measures to assign scientific or experimental values to cultural resources would be expanded under Alternatives B, C1, C2, D, and E when compared with Alternative A. Alternatives C1, C2, D, and E include management actions with the potential to expand areas open to ground-disturbing activities. Alternatives C2 and D pose the greatest potential for direct and indirect adverse effects on cultural resources. Alternative B would offer the most protection, and it has the least potential for adverse impacts on cultural resources. Alternatives C1 and E emphasize an approach of balancing resource protection and resource development.
Paleontological resources	Alternatives B, C1, C2, D, and E would provide additional specific proactive protection, research, and interpretive measures, when compared with Alternative A. Alternatives C2 and D would have the greatest potential for direct and indirect impacts on paleontological resources. To a lesser degree, Alternative C1 would also expand the potential for additional ground disturbance and conveyance that could affect paleontological resources. Of the action alternatives, Alternative B has the least potential for ground-disturbing impacts, followed by Alternative E.
Visual resources	Potential impacts on visual resources are assessed by comparing the VRI class to the VRM class assigned for an area. Compared with Alternative A, all action alternatives would increase the acreage under VRM Class IV, which would allow for potential reductions in scenic quality through major landscape modifications. Alternative C2 represents the largest increase in acreage under VRM Class IV, followed by Alternatives D and E. By contrast, Alternative B allows for the largest increase in acreage under VRM Class I and VRM Class II, reflecting a greater sensitivity toward preserving the visual character of the landscape in specific portions of the planning area.
Wilderness characteristics	Opportunities for solitude, primitive recreation, and naturalness could be affected in various ways through the management actions and land allocations under all alternatives. The largest potential losses of wilderness characteristics would occur under Alternatives A and D, while Alternatives B and E would likely retain the largest amount, with Alternative B being the most protective. Alternatives C1 and C2 would be less protective than Alternatives B and E but more protective than Alternatives A and D; however, because nearly the entire decision area contains wilderness characteristics and the demand for surface-disturbing opportunities is likely to remain low, impacts on LWCs under all alternatives would remain negligible for the foreseeable future.

Resource, Resource Use, and Special Designation	Impact Summary
Forest and woodland products	Under all alternatives, impacts on forestry would be concentrated in the forested wildland-urban interface, which comprises less than 1 percent of the total forests in the planning area; as such, forest resources under all alternatives would remain relatively intact and undisturbed. Impacts on forestry would be the fewest under Alternatives A and D. This is because management actions would limit or prohibit the fewest areas. Impacts on forestry would be greatest under Alternative B, where management actions would prioritize other resources over forestry. Under Alternatives C1, C2, and E, management actions would balance resource development with resource protection; management actions would limit or prohibit more areas than Alternative D but fewer areas than Alternatives A or B. Timber removal in authorized ROWs could reduce timber resources in the long term. The highest potential for removal of timber resources from ROW development would occur under Alternative A, and then D, E, and C2 in that order. The lowest potential for removal of timber resources from ROW development would occur under Alternatives B and C1. Without specific directions and actions for BLM-authorized activities, wildland fire, use of weed-free material, and casual use, Alternative A would be less effective at accomplishing the vegetation management goals and objectives. The largest disturbance factor for forestry is wildland fire. As management actions for wildland fire would be the same across all alternatives, anticipated impacts would also be very similar.
Lands and realty and utility corridors	Total ROW exclusion areas over the course of the plan range from 2 percent to 18 percent of the decision area across all alternatives; ROW avoidance areas range from 0 to 40 percent of the decision area. Lands open to ROW entry cover from 42 percent to 98 percent of the decision area across the alternatives. All action alternatives would designate Ambler and Umiat utility and transportation corridors. Alternatives C2 and D would also designate the Dalton Utility Corridor in lieu of retaining the inner corridor of PLO 5150. Utility corridor designations range from 3 percent to 8 percent of the decision area across action alternatives. Landownership would change across the action alternatives based on a change in selected land status, and subsequent conveyance; these are concentrated in PLO 5150, which covers approximately 16 percent of the planning area. All action alternatives, except for Alternative E, recommend a full revocation of the ANCSA 17(d)(1) withdrawals, which would allow selection as land allotments by Alaska Native Vietnam-era veterans under Section 1119 of the John D. Dingell, Jr. Conservation, Management, and Recreation Act of March 12, 2019. Alternative E would recommend a partial revocation of the ANCSA 17(d)(1) withdrawals, to allow selection as land allotments by Alaska Native Vietnam-era veterans under Section 1119 of the Dingell Act.

Resource, Resource Use, and Special Designation	Impact Summary
Energy and minerals	The extraction of locatable minerals would reduce the available future reserves of locatable minerals. While the magnitude and intensity of impacts are not predictable, development is generally expected in high and medium potential areas, near roads or other infrastructure that can provide easy access for locatable mineral exploration and development. Alternatives that reduce the acreages of high and medium potential areas available for locatable mineral entry would affect the ultimate production of these minerals. Closing areas in the Dalton Utility Corridor would have a greater impact due to the loss of acreage near easy access to a transportation corridor. Mineral materials development would continue to occur under all alternatives in existing mines to supply road maintenance needs. Proponents of new projects requiring mineral materials would seek to use existing locations before opening new material pits. Road, pipeline, and other infrastructure projects would be the primary drivers of mineral material demand during the RMP timeline. Without knowledge of the exact material demands and locations of proposed projects, it is impossible to predict the exact impacts and their magnitude from withdrawing areas from mineral materials disposal. Under all alternatives, the acres of land open for locatable mineral entry would range from 63 to 99 percent. Acres of land not selected by the State and open to mineral material disposal range from 61 to 98 percent. The BLM considered a quantitative impact assessment of fluid leasable minerals and nonenergy solid leasables to be not essential and eliminated it from detailed analysis.
Recreation and visitor services	Dispersed recreation areas are available over the 13,264,000 BLM-managed acres, but access to them is limited by the geology and conditions of the Central Yukon area. Across all alternatives and given the rugged terrain of the planning area, linear ROWs, utility and transportation corridors, and co-located infrastructure could increase recreation access. The total acreage of designated RMAs would range from 0 percent of the decision area under Alternative D to 28 percent of the decision area under Alternative A. Alternative B would manage for targeted recreation settings and desired outcomes in recreation management zones in two designated SRMAs. It would also designate two ERMAs and a BCA. Alternative A would manage the most RMAs; however, Alternatives C1, C2, and E would establish recreation management zones to provide more specific management for achieving desired recreational settings and user outcomes. This contributes to reduced user conflicts. Recreation management under these alternatives would provide for desired recreation settings and experiences. There would be no BCAs, SRMAs, or ERMAs under Alternative D. Without focused recreation management for desired settings and outcomes, other uses could displace visitors and diminish the quality of the recreation setting and experiences, compared with the other alternatives.

Resource, Resource Use, and Special Designation	Impact Summary
Travel management	Alternatives B, C1, C2, and E are subject to summer OHV closures on 0.6 to 16 percent of the decision area. Alternatives B, C1, and C2 also have timing limitations, from May 1 through June 30, on 6 to 9 percent of the decision area. Under these alternatives, in areas where no seasonal or timing limitations occur, cross-country travel is allowed for vehicles with a curb weight of 1,500 pounds or less. New infrastructure development could include trails or roadways along the rugged terrain of the Central Yukon that OHV operators and those on foot may use to access dispersed regions of the decision area. Compared with Alternative A, which would not designate any utility corridors, all other alternatives would increase the potential for improved access farther away from the currently developed areas along established highways.
ACECs	Protection of relevant and important values across all ACECs would be greatest under Alternative B, given that at least some portion of each of the 31 potential ACECs that were found to have relevant and important values would be designated and would receive direct protection via ACEC-specific management actions. The potential for degradation of relevant and important values would be greatest under Alternative D, followed by Alternative C2. This is because no potential ACECs would be designated under Alternative D, and only one ACEC would be designated under Alternative C2. Alternative B, followed by Alternative E, would provide greater protection of R&I values than Alternatives A, C1, and C2, given that more potential ACECs would be designated and would thus receive more direct protection via ACEC-specific management actions.
WSRs	Under Alternatives A and B, interim protective management measures would protect ORVs along all 11 stream segments found either eligible for or suitable for inclusion in the NWSR. Consequently, ORVs would be the most protected under these two alternatives. Under Alternatives C1, C2, D, and E, the 11 stream segments would be found to be not suitable for inclusion in the NWSR, and these stream segments would not be directly protected under interim protective management. Between Alternatives C1, C2, D, and E, the potential degree of alteration would be greater under Alternative D, given that it would allow for fewer land use restrictions. This would result in greater impacts on ORVs and less indirect protection for ORVs. Conversely, under Alternatives C1 and E, and to a lesser degree under Alternative C2, the implementation of increased restrictions to protect sensitive resources, such as visual resources and LWCs, and the implementation of ROW avoidance and exclusion areas would result in fewer potential impacts on ORVs between these two alternatives.
INHT	Management actions and activities under all alternatives could alter the INHT's scenic, natural, and cultural features and integrity. The potential degree of alteration would be greatest under Alternative D because of fewer land use restrictions for protecting sensitive resources associated with the national trail. Conversely, under Alternative B, increased restrictions to protect sensitive resources, such as visual resources and LWCs, and the implementation of ROW avoidance and exclusion areas would result in the fewest potential impacts on the INHT. Alternatives A, C1, and C2 would have slightly less restriction and therefore slightly greater potential impacts than Alternative B. Alternative E would reduce the overall miles of INHT open to forestry activities, open to ROWs, and open to fluid minerals, which could improve the scenic, natural, and cultural values associated with the INHT.

Resource, Resource Use, and Special Designation	Impact Summary
Environmental Justice	The goal of the environmental justice analysis is to determine whether impacts on low-income and minority populations are disproportionately negative. The primary impacts of concern are already identified in the Subsistence and Social and Economic Conditions sections of this table. Alternatives A, B, C1, and E do not have any disproportionate, negative effects on the 22 environmental justice communities identified. Alternative C2 is expected to have an impact on the communities of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, and Stevens Village due to the recommended revocation of PLO 5150 in the Dalton Utility Corridor, coupled with other impacts on subsistence resources and the associated increased cost-of-living and heightened risk of food insecurity. Alternative D is the most likely to facilitate resource development and any associated jobs and labor income. Any additional labor income would be expected to also support subsistence lifestyles in a mixed economy; however, Alternative D also poses the greatest risk to subsistence resources and access; therefore, the 22 environmental justice communities in the planning area would be at risk of experiencing disproportionate, negative impacts due to effects on subsistence access and abundance under Alternative D.
Subsistence	Overall, Alternatives B, C1, and E are likely to provide more protections to subsistence resource abundance, availability, and access than Alternative A; Alternatives C2 and D would provide fewer protections. Alternative D would provide the fewest protections for fish and wildlife species and subsistence access. Alternative B would provide most protections for subsistence resources and uses; however, because Alternatives C1 and E have specific protections for important Dall sheep habitat, they may provide a greater level of protection for this species. Alternative D would also designate no acreage as ACECs, RNAs, or RMAs, and therefore would provide the lowest level of protection for subsistence fish and wildlife species and their habitat. Alternatives B, C1, C2, and D recommend a partial or full revocation of PLO 5150. The revocation of PLO 5150 would allow State of Alaska top-filed lands to become selected lands. Priority 1 and 2 selections are likely to be conveyed during the life of the plan, while Priority 3 and 4 would likely remain encumbered until the selection is relinquished or rejected. Encumbered lands would be unavailable for priority subsistence conducted under Title VIII. Conveyed lands would be managed by the State of Alaska's subsistence regulations, which do not have rural preference. Impacts on the residents of Coldfoot and Wiseman include the removal of federal subsistence priority motorized access for subsistence harvest activities. Other communities, such as Alatna, Allakaket, Bettles, and Evansville, whose residents use the Dalton Highway Corridor Management Area for subsistence hunting and have harvest methods allowed under federal subsistence priority, would also be affected. Shifting management of the corridor to the State of Alaska would eliminate the rural preference and would likely encourage more outside hunters into the area. This may result in increased competition for access to resources from non-federally qualified subsistence users, which could affect the abundance or availability of subsistence resources. The full retention of PLO 5150 under Alternatives A and E would not impact subsistence uses or access for any of the 24 analyzed communities.

Resource, Resource Use, and Special Designation	Impact Summary
Social and Economic Conditions	Alternative A is likely to sustain existing economic contributions to the mixed economy and market contributions from tourism, mining, and construction industries. Alternative B, outside of limitations for subsistence access for Coldfoot and Wiseman, would decrease economic risks for rural subsistence communities due to positive effects on subsistence species abundance; however, it would constrain potential economic development opportunities leading to jobs and income in both rural subsistence and non-subsistence communities through ROW exclusions, mineral withdrawals, ACEC designations, and NSO stipulations for fluid minerals. Alternative C1 is similar to Alternative B, except it would be more favorable to development and hence support a greater degree of economic activity. Alternatives C2 and D open the largest percentage of lands to resource development. Alternative E is most similar in impacts to Alternatives A and C1; it would strike a balance between supporting a greater degree of economic activity and decreasing economic risks for rural subsistence communities due to increased costs of living and decreased subsistence access, as well as positive effects on subsistence species abundance.

Appendix N
Reasonably Foreseeable Development Scenario

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ACRONYMS AND ABBREVIATIONS

	Full Phrase
APMA	application for permits to mine in Alaska
ARDF	Alaska resource data files
ASTAR	Arctic Strategic Transportation and Resources
BLM	Bureau of Land Management
CYFO	Central Yukon Field Office
REE	rare earth elements
ROW	right-of-way
TR50	Bureau of Land Management Technical Report 50
USGS	United States Geological Survey

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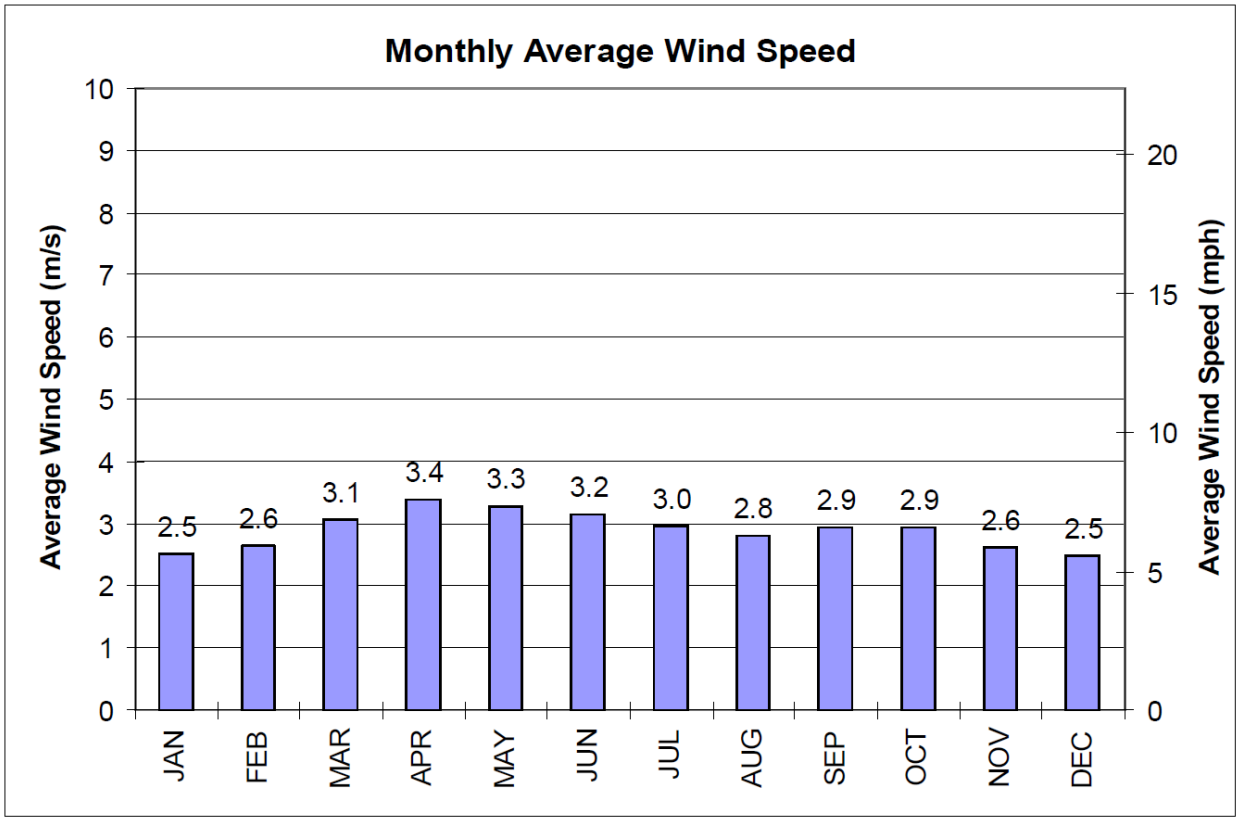
Appendix N. Reasonably Foreseeable Development Scenario

N.1 WIND

The potential for wind development in the Central Yukon Field Office (CYFO) is low to very low. Wind resources are feasible for the development of wind energy facilities as demonstrated by the presence of the Eva Creek Wind Project. This project consists of a 24.6-megawatt facility constructed just outside of CYFO boundaries in 2013 at a total cost of $93 million (GVEA 2018).

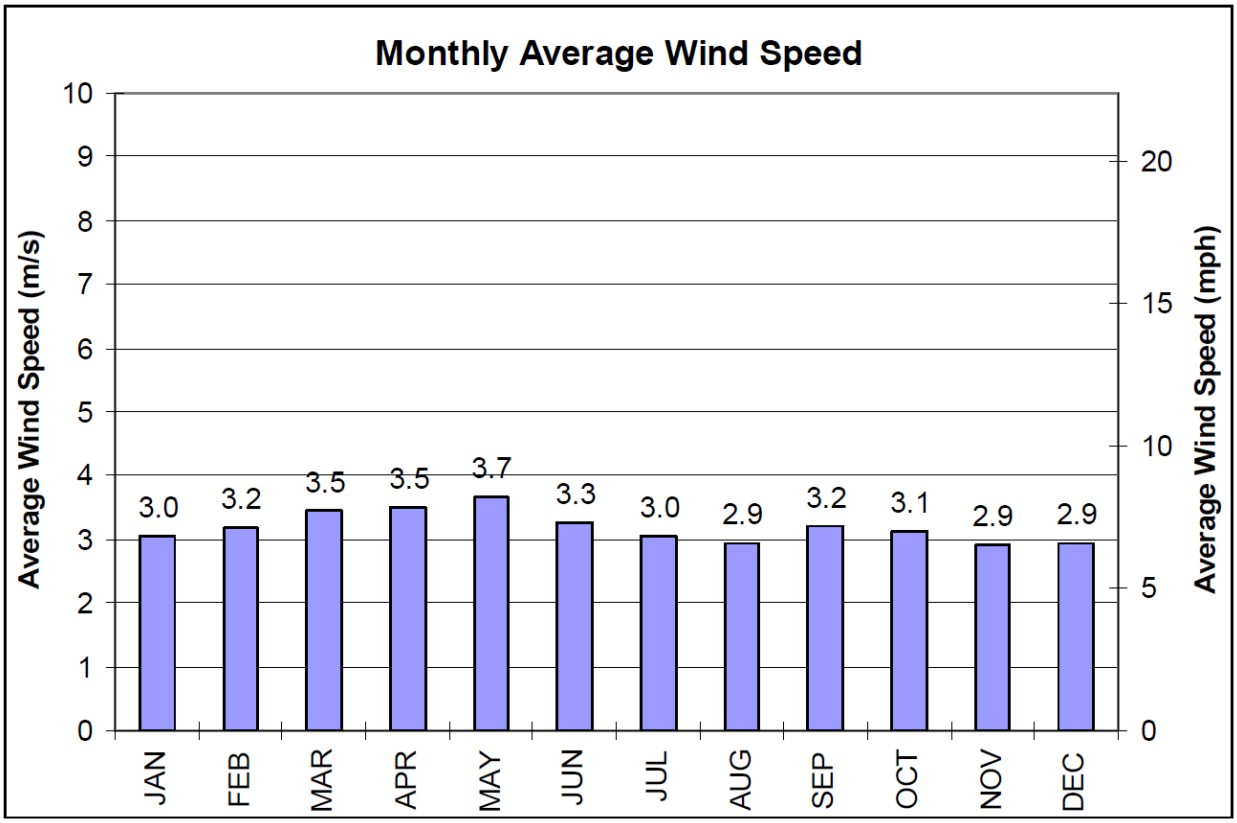
Within the CYFO, weather station reports from Bettles and Tanana show consistent average wind speeds of approximately 5 to 8 miles per hour, as shown in **Figure N-1** and **Figure N-2**, below; however, both locations receive a wind power rating of poor from the Alaska Energy Authority (2005a, 2005b). The Tanana site recorded 18.8 percent of days as calm, with a caveat that some of those days may have been due to frozen equipment (Alaska Energy Authority 2005c). The Fairbanks airport weather station recorded that approximately 23 percent of days were calm over a period from 1971 to 2000 (The Alaska Climate Research Center 2018). **Map N-1**, below, shows average wind power density at a 50-meter height. The high cost of transporting and installing wind turbine components in remote locations means it is unlikely that most towns within the CYFO would have the resources for a wind power installation of significant size, even in areas with high wind power density.

Figure N-1
Bettles Field Monthly Average Wind Speed



Source: Alaska Energy Authority 2005a

Figure N-2
Tanana Monthly Average Wind Speed



Source: Alaska Energy Authority 2005b

N.2 SOLAR

Overall solar potential in the CYFO is low to very low. Solar energy has been employed in some areas in Alaska as a supplement to small-scale diesel- or oil-fueled generators and to reduce the overall costs of power generation in remote areas (Nash and Pike 2018). Locations within the CYFO where this could occur are not predictable, although solar development may be more likely in towns or villages using primarily or exclusively fossil fuel generators. Mining operations could also use solar power to run equipment and reduce their reliance on diesel fuel. Remote houses or cabins might also use a solar component as part of an 'off-grid' power system, but these would be located on private land. **Map N-2**, below, shows average daily solar energy received throughout the planning area.

N.3 FLUID LEASABLES

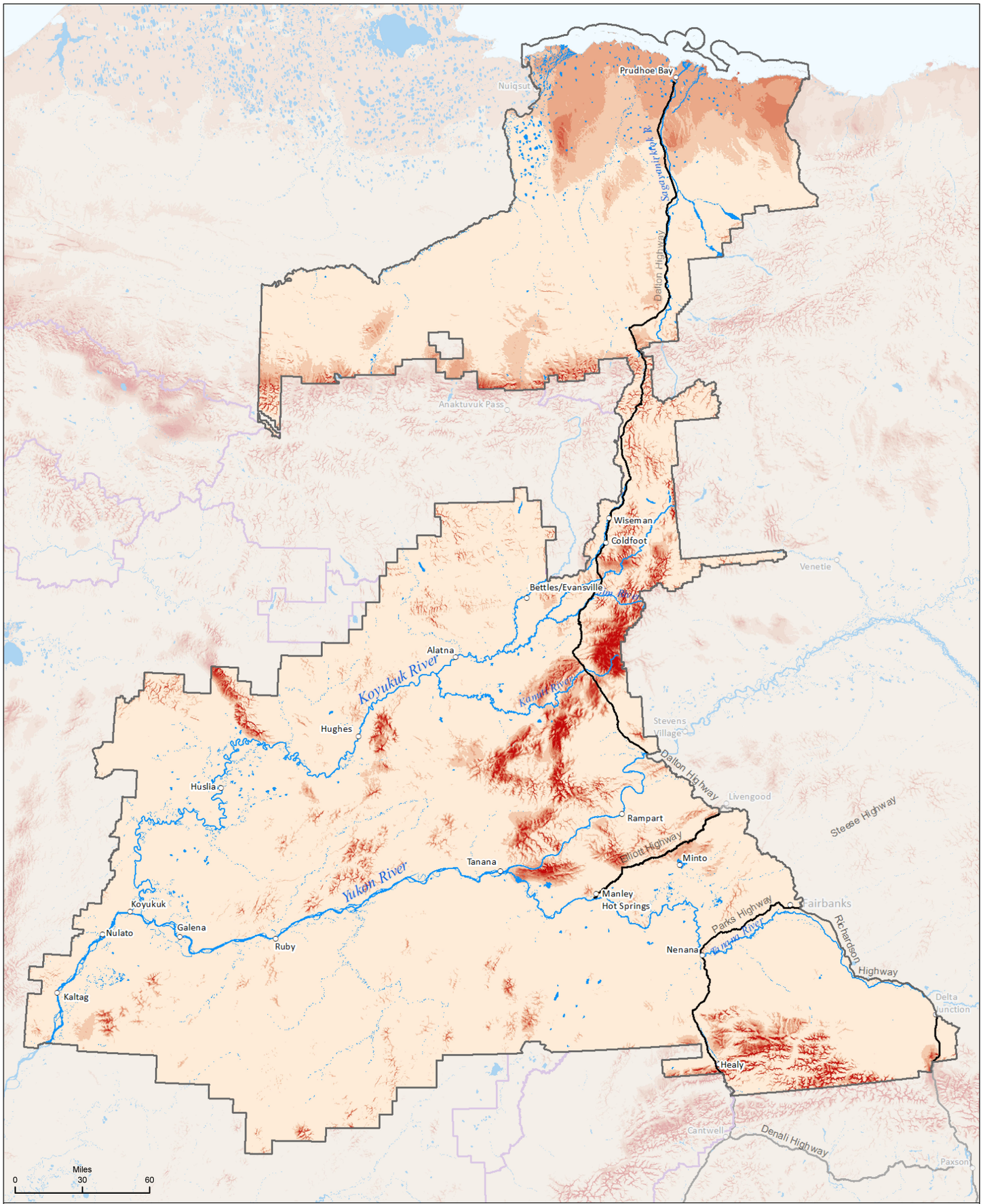
The primary petroleum basins in the CYFO are the Colville River Basin, the Galena Basin, the Nenana Basin, and the Minchumina Basin. The Colville River Basin and the Nenana Basin have the highest potential for exploration and development; however, neither basin is expected to have any development activity on Bureau of Land Management (BLM)-managed land in the next 20 years. See **Map N-3**, below, for a map of relative fluid leasable mineral potential developed by BLM staff.

Federally managed lands in the southern areas of the Colville River Basin near the Brooks Range are unexplored and have an unknown potential for oil. Federally managed lands are covered by six U.S. Geological Survey (USGS)-defined oil and gas plays, as described in the 2020 report (Houseknecht et al. 2020). None are expected to produce economic quantities of oil and gas. It is possible that some of the same source and trap formations that occur in oil-producing areas of the North Slope are also present in this area. Only a small portion of the basin is in the planning area, and the proximity of this area to the Brooks Range is likely to have reduced the thickness of petroleum-forming deposits or reduced the depth of burial. Additionally, some of the federally managed lands in the planning area around the Colville Basin are native patent subsurface (i.e., the BLM does not own the mineral rights). The remaining BLM surface and mineral estate is closed to fluid leasing per the Alaska Native Claims Settlement Act Public Land Orders.

A higher potential for development exists closer to infrastructure, such as the Dalton Utility Corridor. The Colville River Basin is a proven oil reservoir in the northern portion of the basin; however, at this time due to Alaska Native Claims Settlement Act withdrawals and native patents, there are no fluid minerals available for leasing within the CYFO planning area. The Colville River Basin has high potential for new discoveries of economically recoverable amounts of oil and gas. Exploration and development are expected to continue within the northern part of the basin; however, development would not occur on federal mineral estate.

The Galena Basin is in the west and southwest corner of the planning area. Very little is known about the subsurface, but seismic survey suggests that the basin is likely too shallow to generate significant volumes of petroleum and there is very little evidence of any well-defined trap or reservoir rocks (Swensen et al. 2012).

The Minchumina Basin is on the southern boundary of the planning area, south of Ruby. The basin is theorized to consist of intruded and deformed deep marine sedimentary rocks. The depth across most of the basin is not sufficient to generate conventional petroleum, and studies suggest that petroleum potential is likely limited to small gas prospects (Kirschner 1994).



Wind Power Density at 50m (W/m²)

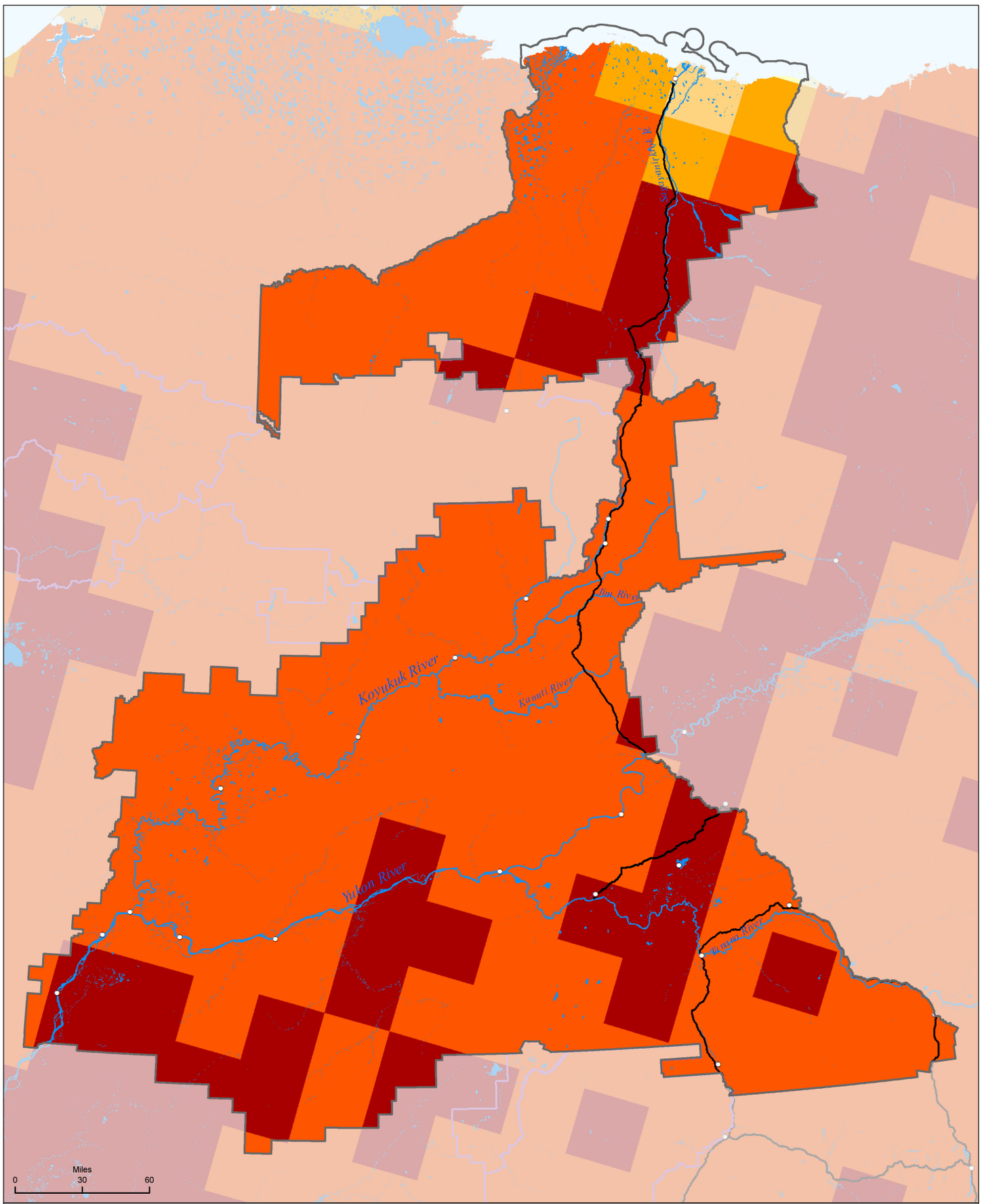
- <200
- 200-300
- 300-400
- 400-500
- 500-600
- 600-800
- >800

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Data Source: NREL GIS 2012

Map N.1

Print Date: 01/24/2024



kWh/m²/day

2.19–2.60

2.60–2.80

2.80–3.00

3.00–3.60

3.60<

Federal mineral estate

BLM surface, Native patent subsurface



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Data Source: NREL GIS 2018

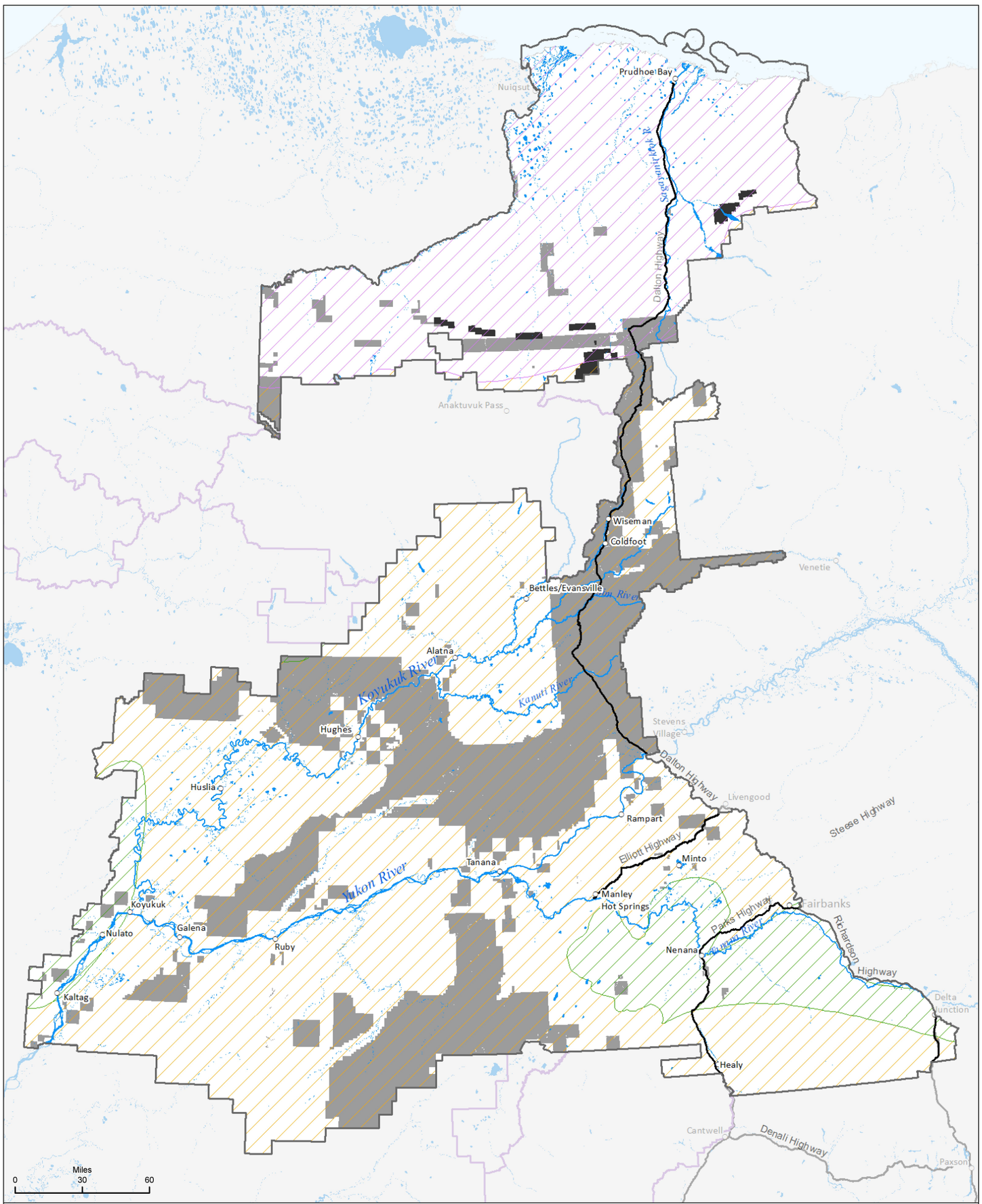
Map N.2

Print Date: 01/24/2024

Oil and Gas Potential and Basins in the Central Yukon Field Office Planning Area

Reasonable Foreseeable Development Scenario

U.S. DEPARTMENT OF THE INTERIOR | BUREAU OF LAND MANAGEMENT | ALASKA | CENTRAL YUKON RMP/EIS



Oil Potential

- High
- Low
- Very Low

- Federal mineral estate
- BLM surface, Native patent subsurface



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Data Source: BLM GIS 2017

Map N.3

Print Date: 01/24/2024

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The Nenana Basin is in the area surrounding the town of Nenana. Several exploration wells have been drilled in this basin, but no proven producible reserves are known to exist at this time. Gas is known to exist, as shown by exploratory wells, and light oil is theorized to exist (Doyon Limited 2017). Most of this basin is state or Native corporation lands, so development of federal minerals is not likely.

Data indicate that there are six historic exploration wells that have been plugged and abandoned and no production wells within the Nenana Basin (Data Basin 2008). Doyon Limited, a Native corporation, has been conducting exploration in the Nenana Basin, and a recent exploration well found a promising gas saturated sandstone; however, a trap failure had reduced gas saturation to below economically recoverable levels (Doyon Limited 2017).

Within the past 5 years, Doyon Limited has drilled and abandoned three exploration wells in the Nenana Basin, one of which included a side-track bore (AOGCC 2018). Doyon is planning to drill an additional well in a section of the basin with promising three-dimensional seismic survey results. The well is expected to primarily encounter gas, and possibly oil (Doyon Limited 2017).

Because the Nenana Basin is almost entirely owned by the State of Alaska and Doyon Limited, no oil and gas development in the basin is expected to occur on federal mineral estate. Based on historic and recent exploration in the area, the BLM anticipates that in the 20-year time frame covered by this document, up to five additional exploration and/or delineation wells will be drilled in the Nenana Basin; however, none are likely to be on BLM-managed land. Based on recent development, surface disturbance per well pad will be approximately 11 acres and access roads will disturb approximately 3.5 acres per mile. If an economically recoverable deposit of gas is discovered, the development of that resource will be determined by the availability and strength of nearby markets or the creation of new infrastructure to access national or international markets.

It is estimated that the Nenana Basin contains 989 billion cubic feet of natural gas (Dixit 2017). If oil is discovered in economically recoverable quantities, it could be transported to market via a connection to the Trans-Alaska Pipeline. Given current understanding of the Nenana Basin geology, with estimated total basin reserves of 250 million barrels (Dixit 2017), the likelihood of discovering a pool with economically recoverable quantities of oil in the basin is very low; however, the investment Doyon Limited is making in exploration wells suggests the possibility that proprietary data may show greater oil and gas potential.

Fluid mineral potential in most of the planning area is very low to low. Areas of fluid mineral potential are limited to a few locations in the planning area, and no development is expected on BLM-managed surface or mineral estate during the life of the RMP.

N.4 NON-ENERGY LEASABLE MINERALS

N.4.1 Gilsonite

Gilsonite (also known as Uintahite and asphaltum) is a form of bitumen characterized by a relatively high melting temperature. It is commonly used as an additive in asphalt, drilling fluids, well casing cement, inks, paints, and foundry sand (American Gilsonite Company 2018). Occurrence is distributed globally, but mining primarily occurs in the largest known deposits in the Uintah Basin of Utah.

The 2008 report of the Alaska Division of Geological and Geophysical Surveys mentions the existence of gilsonite in Alaska. No known historical mining of Gilsonite has occurred in the planning area, and no future mining is expected to occur.

N.4.2 Phosphate

Phosphate is used in the formulation of fertilizer. In the United States it is mined in Florida, North Carolina, Idaho, and Utah. It occurs in igneous deposits as the mineral apatite and in sedimentary deposits from shallow marine environments. A study conducted in Upper Idaho Gulch in the Tanana quadrangle near the town of Tofty noted the presence of two carbonate bodies containing up to 40 percent apatite (Warner et al. 1986). A study of phosphate content focusing on the Naval Petroleum Reserve north of the planning area reported sedimentary phosphate deposits in Mississippian and Triassic age formations along the foothills of the Brooks Range, some of which may be within the planning area (Patton and Matzko 1959). No historic or current phosphate mining occurs in the CYFO planning area, and no future mining is expected to occur.

N.4.3 Potash (Potassium)

Potash is a source of potassium used in fertilizer production. No potash mining occurs or is expected in the planning area, and there are no known significant potash deposits in Alaska (Orris et al. 2014).

N.4.4 Sulfur

Sulfur is a common element that is primarily used in the manufacture of fertilizer. It occurs in volcanic environments and is produced as a biproduct of oil refining. Deposits of sulfide minerals occur in the Brooks Range in the northwest part of the planning area (USGS 1996). No past or present sulfur mining is occurring in the planning area, and no future mining is expected.

N.4.5 Sodium

Sodium is a highly reactive metal, typically mined from sodium chloride or sodium bicarbonate deposits. No know significant sodium deposits exist in the planning area, and no mining is anticipated.

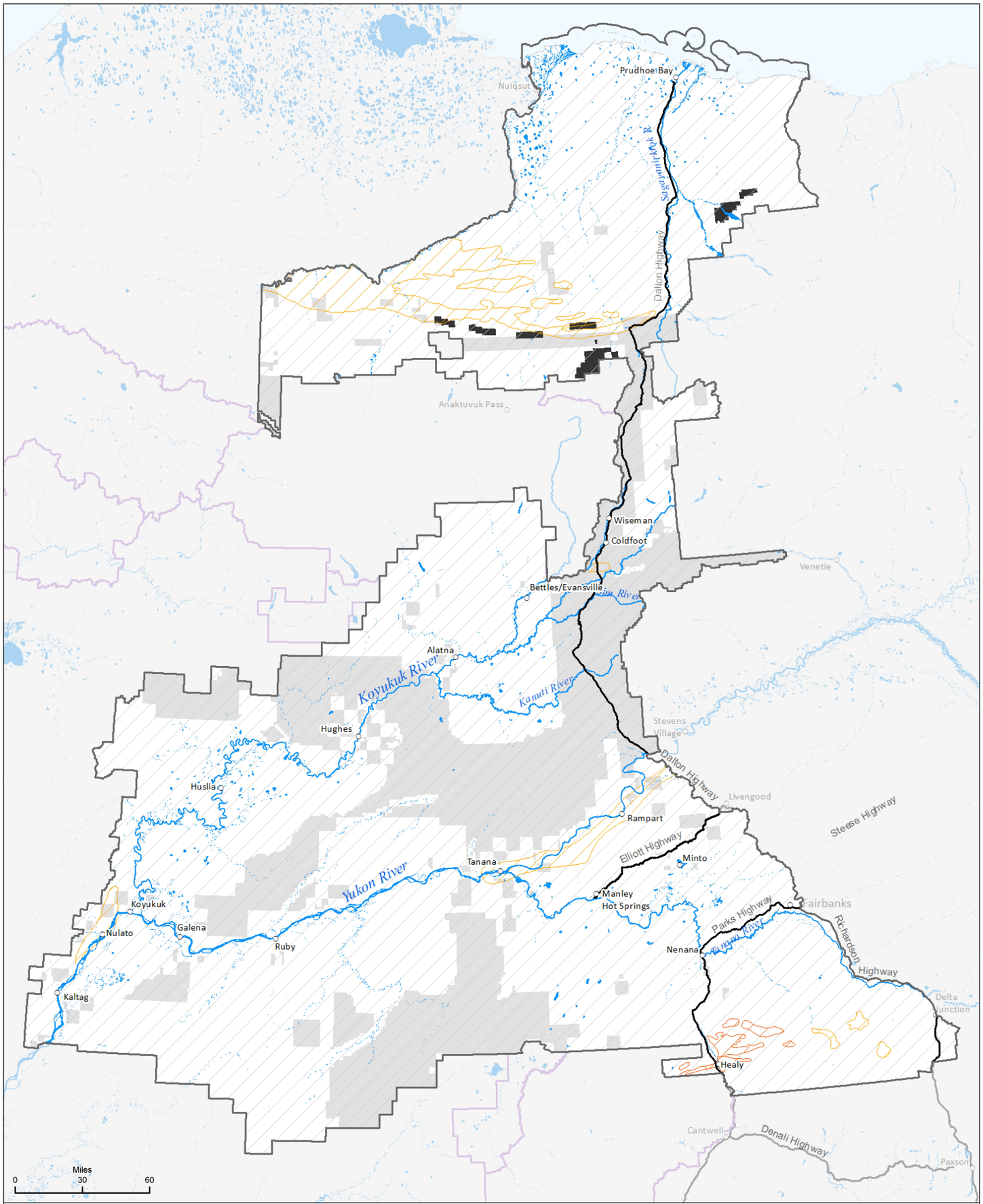
No development of nonenergy solid leasables is anticipated in the planning area. No significant deposits of nonenergy solid leasables have been identified within a reasonable distance of roads or other transportation corridors. Global demand for nonenergy solid leasables is well supplied by sources outside the planning area, and local market demand is very low to nonexistent. Nonenergy solid leasables were not raised during the public scoping process.

N.5 COAL

The CYFO contains six coal areas: Northern Alaska-Slope Coal Province, Upper Koyukuk Basin, Lower Koyukuk Basin, Rampart Field, Nenana Basin, and the Tozitna Coal District (Alaska Division of Geological and Geophysical Surveys 2012). Coal mining is actively occurring on private mineral estate at one location in the planning area: the Usibelli Coal Mine, in the Nenana Basin near the town of Healy (Usibelli Coal Mine 2015). No mining of Federal coal resources is occurring, due to distance to market, difficult operating conditions, and private coal resources in the planning area, it is unlikely that any development would occur in the 20-year life of the Resource Management Plan. See **Map N-4** for the location of known coal basins and **Map N-5** for a coal development potential ranking developed by BLM staff.

The Northern Alaska-Slope Coal Province is a large coal province in northern Alaska that partially overlaps the northern portion of planning area. Coal formations in this province are subbituminous and bituminous. No development is expected in this area, due to the difficulty and expense of operating in an arctic environment, a limited transportation network, and the distance to markets (USGS 2004).

The Upper Koyukuk Basin is near the town of Coldfoot. Coal in this area is ranked as bituminous, and small-scale historic mining occurred at this location (Kurtak et al. 2002). No mining is anticipated to occur in this basin due to the distance to potential markets.



Coal Potential
- Low
- Very low
- None

Federal mineral estate

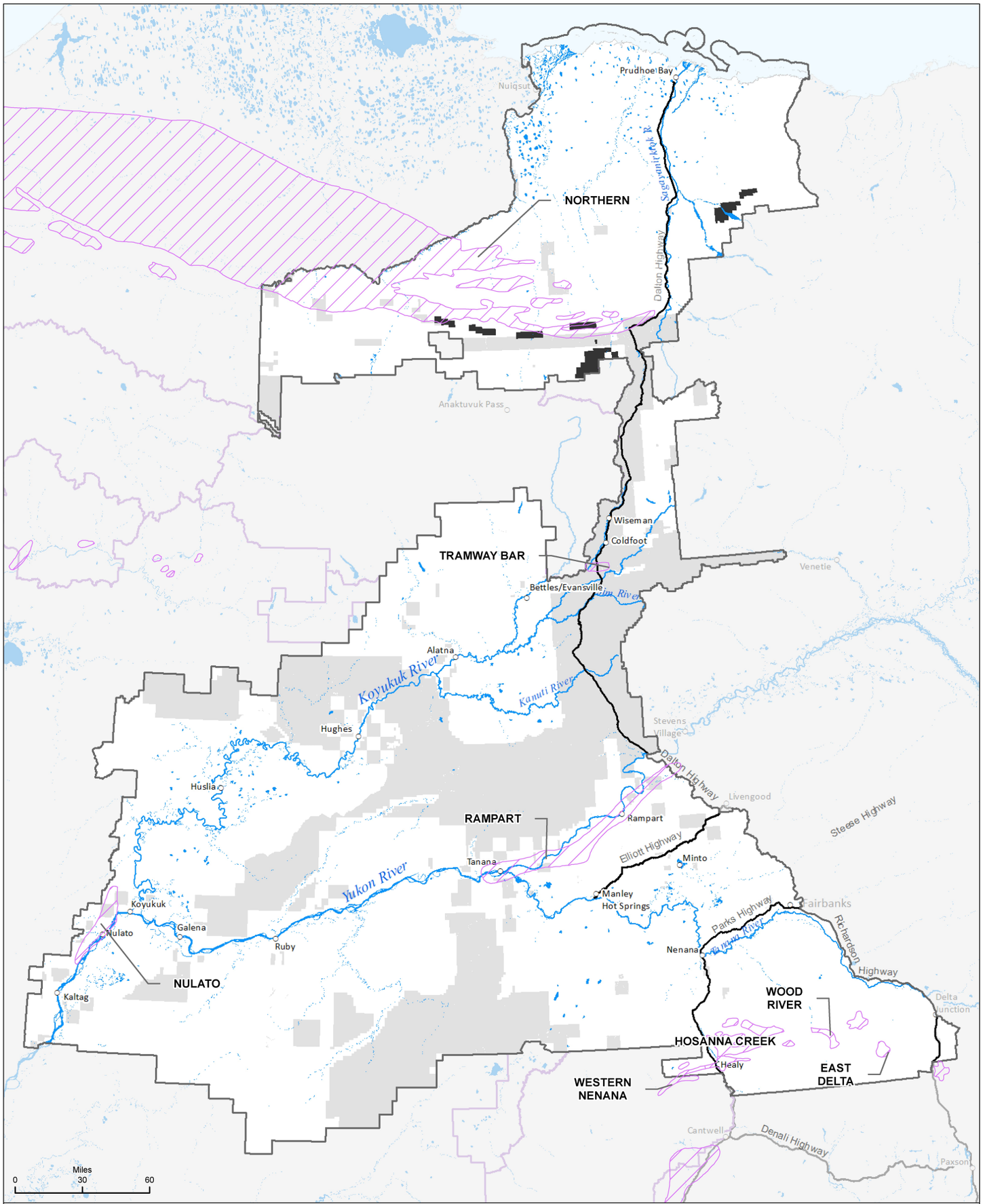
BLM surface, Native patent subsurface

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Data Source: BLM GIS 2017

Map N.4

Print Date: 01/24/2024



Coal basin

Federal mineral estate

BLM surface, Native patent subsurface

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Data Source: BLM GIS 2017

Map N.5

Print Date: 01/24/2024

Lower Koyukuk Basin is a bituminous basin along the Yukon River. Historic mining occurred at the Nulato Formation within this basin during the early 1890s to 1900s. The degree of folding and faulting in the field makes mining difficult. Coal is visible in isolated occurrences along the Yukon River (USGS 1973). No future mining is expected to occur.

Rampart Field is a bituminous field near the town of Rampart. Coal beds are less than five feet thick and steeply dipping, which would make mining difficult (USGS 2001). No mining is anticipated in this field.

Nenana Basin is a subbituminous basin near the town of Healy (USGS 2004). Usibelli Coal Mine is actively mining in this field. Federal land ownership near the mine is small and in scattered parcels. Mining of private mineral estate is expected to continue at Usibelli Coal Mine but is not expected to expand into any federal minerals.

Tozitna Coal District contains low-grade coal in sub-economic-sized deposits (USGS 2009). No mining is anticipated.

N.6 RIGHTS-OF-WAY

Within the CYFO planning area there are about 315 authorized long-term (20 years or more) rights-of-way (ROWs). The earliest ROWs date from about 1950. ROWs are classified as either ground-disturbing, meaning that the authorized land user can modify the land and vegetation within the ROW, or non-ground-disturbing, meaning that the area within the ROW will not be significantly changed.

The 301ground-disturbing ROWs are estimated to cover approximately 14,340 acres, based on information in case file abstracts, which are not always accurate. Many of the authorized ROWs originally covered more acres, but as lands have transferred to the State, jurisdiction has in many cases transferred. For example, only small pieces of the Parks and Richardson Highways remain under a BLM ROW; therefore, acres are assumed to not be accurate in many cases.

There are 13 authorized non-ground-disturbing research ROWs that cover 77,127 acres (most of this acreage is due to one ROW issued to Alaska Department of Fish and Game for snowmobile access to pick up radio collars on 76,000 acres).

See **Appendix M** for a description of past, present, and reasonably foreseeable future actions. The following are a summary of proposed major projects that would require ROWs on BLM-managed lands:

- The Alaska Stand Alone Pipeline is a proposed natural gas pipeline that would transport natural gas from the North Slope to communities in southern Alaska. The main pipeline would be 733 miles long with a 30-mile-long sidetrack connecting the main pipeline to Fairbanks. The ROW would range from a 120-foot easement at its narrowest point to a 350-foot easement at its widest point.
- The Alaska Liquid Natural Gas project is an authorized project to transport natural gas from the North Slope to an export terminal in southern Alaska. The authorized pipeline is 807 miles long, with a 120-foot ROW.
- Ambler Road is a proposed road to access the Ambler Mining District in the Brooks Range. The proposed road is 211 miles long, with a 250-foot-wide ROW. The road will primarily run through state and native lands, with the BLM ROW limited to a few miles.
- The Arctic Strategic Transportation and Resources (ASTAR) is a collaborative transportation planning initiative that would provide road access to towns and villages across the North Slope. It is still in the conceptual stage, and no firm mileage estimates have been published.

- The Anaktuvuk Pass Community Winter Access Trail s an ice road constructed between the Dalton Highway and the town of Anaktuvuk Pass to efficiently ship supplies to the town and to test a possible alignment for an ASTAR Road. The road is 101 miles long, with 27.6 miles on BLM-managed land. The ROW is 30 feet wide and is only used in the winter months when the ice road is open or being constructed.
- The Western Alaska Access Road (also known as the Road to Nome or Tanana Road) is a proposed road network with sections connecting towns and villages across western Alaska. The proposed Manley to Nome section totals approximately 548 miles of proposed variable-width ROW, with an average 500-foot easement width. The Nenana to Tanana/Totchaket Road section would be 150 miles long, with a 60-foot-wide ROW. This project no longer appears likely to happen (Anchorage Daily News 2016).

N.7 SALABLES

Salable materials include gravel, riprap, sand, and common fill. They are typically used in pipeline and road construction and reinforcement. There are numerous salable material pits in the planning area; authorized, interim, and pending permits total approximately 40,502 acres on BLM-managed lands. Demand for salable materials is driven primarily by construction projects. The ROW section above outlines planned or proposed projects in the vicinity of the CYFO, many of which may require significant amounts of salable materials from both existing and new pits. Estimates of material needs by project are provided below.

The Alaska Stand Alone Pipeline is projected to need approximately 25 million cubic yards of material and has proposed the construction of 18 new gravel pits on BLM-managed lands in addition to the use of 20 existing pits on BLM-managed lands. The Alaska Liquid Natural Gas Pipeline does not have gravel estimates, but the pipeline is approximately 800 miles in length (37 miles longer than the proposed Alaska Stand Alone Pipeline). Gravel needs should be similar across the two projects. Alaska Liquid Natural Gas has identified 149 potential source pits along the route, 31 of which are on BLM-managed lands.

Preliminary planning for the Ambler Road ROW identified 40 new material sites and 8 alternate sites. In addition, two existing sites are proposed for use. Both existing sites and two of the proposed sites are on BLM-managed land; the proposed new sites would total 156 acres. It is estimated that at least 9.5 million cubic yards of gravel would be required for the road construction; however, only a very small portion would be sourced from pits on BLM-managed lands.

The final environmental impact statement for the oil and gas leasing program for the 1002 Area of the Coastal Plain was released in September 2019. The 1002 Area is on the eastern North Slope adjacent to the CYFO. If leases are developed in this area, gravel would be required for the construction of roads, well pads, and pads for storage and processing facilities. It is estimated that there are sufficient gravel resources within the 1002 Area such that imports from the CYFO planning area would not be required.

ASTAR is a collaborative transportation planning effort which attempts to identify and evaluate opportunities that enhance the quality of life and economic opportunities in North Slope communities through responsible infrastructure development. The network layout is still being determined, so the total amount of material that would be necessary for road construction and the number of pits that would be located on BLM-managed lands is unknown at this time.

N.8 LOCATABLE MINERALS

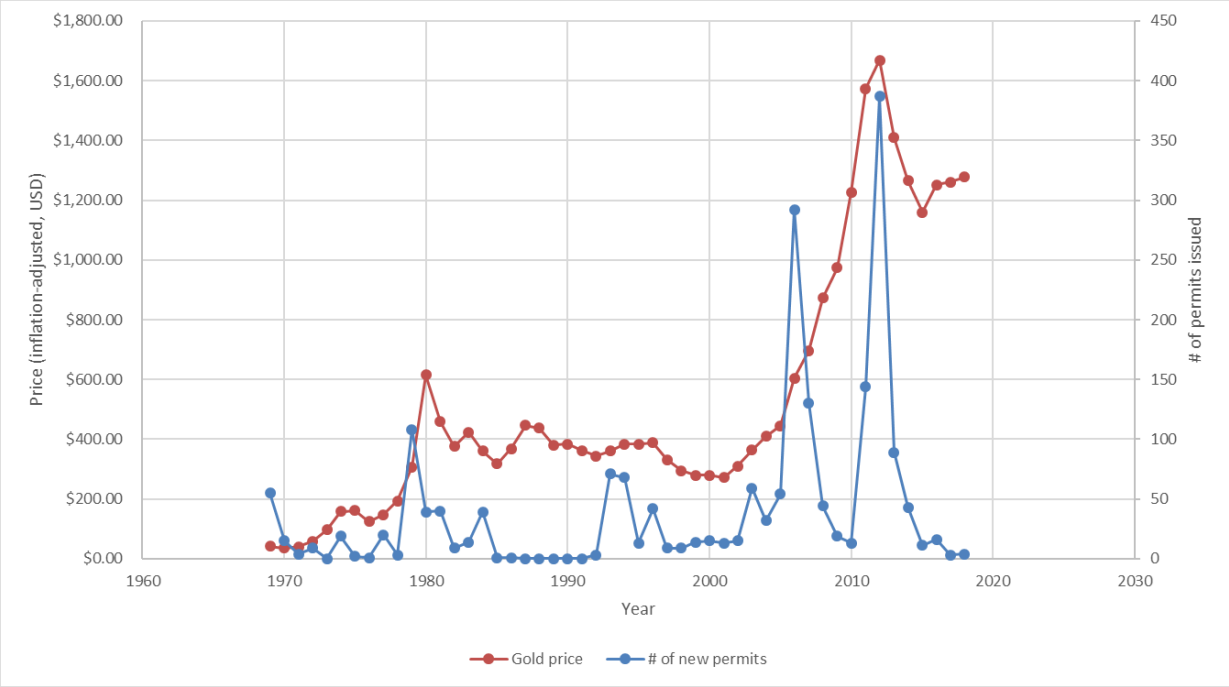
N.8.1 Locatable Mineral Potential and Projections

Price of gold, past locatable mineral production, and known mineral occurrences described below were used to spatially rank locatable mineral potential and create a locatable mineral potential map shown in **Map N-6**, below.

On BLM-managed lands in the planning area (the decision area) 268,000 acres (2 percent) are ranked as high potential for locatable minerals, 949,000 acres (7%) are ranked as medium potential, 1,472,000 acres (11%) are ranked as low potential, and 10,344,000 acres (79%) have no known or anticipated potential. High and medium potential for locatable minerals together are 1,217,000 acres (9% of the decision area).

Production of locatable minerals in the planning area is expected to continue into the foreseeable future. The rate and trend of locatable mineral production is closely tied to the price of gold and is very difficult to predict. This document uses the rate of federal locatable mineral mining claims issued in the planning area to estimate future production. Mining claim issuance peaked in 2012, with 387 mining claims issued as the average price of gold hit $1,668.86 per troy ounce (Macrotrends.com 2018). Over the last 10 years an average of approximately 82 mining claims per year have been issued; however, in the past 5 years the average has declined to approximately 32 mining claims per year as the price of gold dropped. Since the price of gold was deregulated in 1971, an average of approximately 42 federal mining claims per year have been issued in the planning area. It is estimated that an average of 30 to 50 new federal mining claims will be issued per year. Most mining claims are issued for 20-acre tracts, but larger mining claims can be issued. **Figure N-3**, below, shows the average price of gold and new mining claims issued since 1969.

Figure N-3. Average Annual Price of Gold and Mining Claims Issued Since 1969



Source: Hoppe 2018, Macrotrends.com 2018

The primary locatable minerals in the planning area are gold, silver, copper, nickel, and chromite. Physiography, geology, and culture influence the exploration, development, and extraction of locatable

mineral resources. Typically, gold is the driver of development in the planning area, and other minerals are produced when they co-occur in gold deposits. The amount of exploration, development, and extraction depends on worldwide demand, the geologic concentrations of needed minerals, and physiographic and geographic accessibility. The supply and demand of locatable minerals exists in a relatively global market, while costs to produce minerals are relatively local. Assessment of development potential for the planning area evaluates both the global value and local costs.

To estimate future mineral resources and create a development potential map a combination of mining claim locations, documented mineral occurrences, active mining, exploration and surveying operations, selected or patented lands, and high-potential mineral occurrence areas were examined. This potential map is shown in **Map N-6**, below. In the figure, areas with a score of 1 to 3 are considered to have low potential, areas with a score of 4 to 9 are considered to have medium potential, and areas with a score of 10 or higher are considered to have high potential. Areas of BLM mineral estate without a ranking on the map are considered to have very low potential.

N.8.2 Locatable Mineral Potential Determination

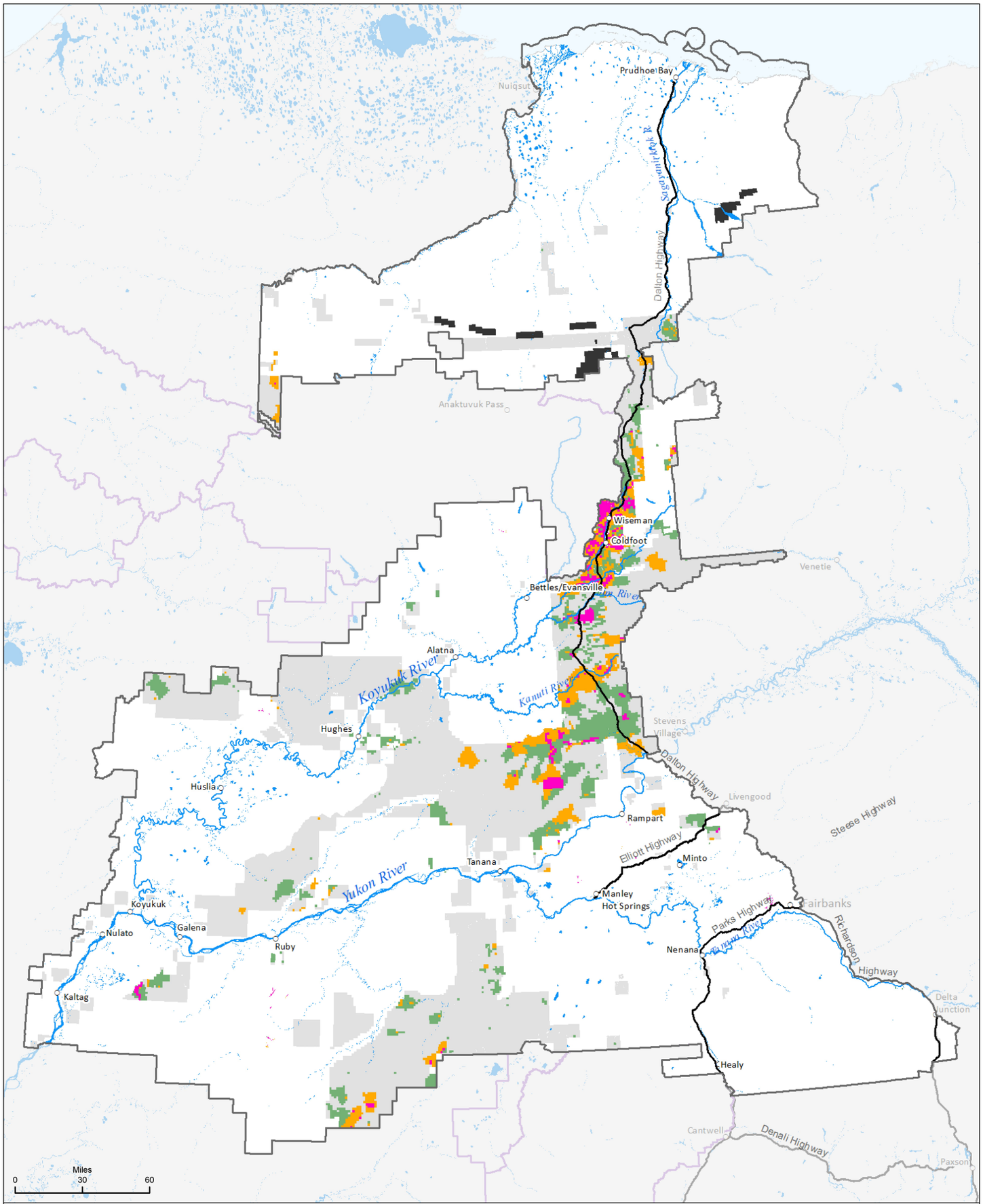
The following information sources and categories were used to determine locatable mineral potential for the planning area. Potential was determined without consideration of current land status. See Hoppe (2018) for further details regarding the methods used in developing the locatable mineral potential layer.

N.8.3 Mineral Occurrences

For discovery locatable resources, explorers follow anomalous regional sample results to identify and isolate mineralized areas. Explorers stake mining claims over the identified areas and then conduct physical sampling to characterize any mineralized rock they may discover. If results are favorable, a mine may develop. If economic or other conditions are not favorable for development, sites are either reclaimed and abandoned, or held until conditions improve. Accordingly, mining claims are a good indicator of the location of known minerals and an indicator of future mineral activity, especially if metal prices rise.

Mineral potential reports, regional geology, and mineral occurrence databases predict trends and identify areas of mineral development potential. Results of the Koyokuk Mining District Assessment were published in BLM Technical Report 50 (TR50; Kurtak et al. 2002). This study conducted substantial physical investigations of individual mineral occurrences. The study also incorporated previously conducted investigations and studies by various state, federal, and Alaska Native corporation entities, along with some industry data. This study covered about 50 percent of the planning area. The identified areas of mineral potential were compared to the recent evaluations of mineral potential by the USGS. Many of the areas identified in TR50 were also identified as showing magnetic anomalies in recent USGS Geographic Information Systems-based assessments. The coincidence of the USGS and the TR50 area of anomalous minerals validates the USGS data outside of the TR50 study area.

The USGS incorporates the latest and best regional geochemical sampling information available from state and federal agencies. The USGS put the statistical emphasis on specific geochemical signatures and included data from recent digitally enabled geologic maps, regional scale geophysical data, and to a lesser extent data from the Alaska Resource Data Files (ARDF) database. The reevaluation of the geochemical databases and the publication of the digitally enabled Geologic Map of Alaska (Wilson et al. 2015) allowed for this type of statewide assessment for the first time.



Locatable Mineral Potential Total

- High (≥10)
- Medium (4-9)
- Low (1-3)
- Federal mineral estate
- BLM surface, Native patent subsurface



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Data Source: BLM GIS 2017

Map N.6

Print Date: 01/24/2024

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Mineral occurrence locations were taken from two mineral inventory databases: the ARDF developed by the USGS, and the Mineral Inventory Location System developed by the United States Bureau of Mines. The ARDF dataset, being more up to date in this region, is used primarily to locate mines, prospects, and occurrences in the planning area. Importantly, the current ARDF data set incorporated the data from TR50. The Alaska Mineral Information System database is a reorganized and revised version of data from Mineral Inventory Location System with ARDF, referenced to affirm and supplement the ARDF data.

In TR50, Kurtak et al. (2002), identified various placer deposits in the general Wiseman area, including copper-gold skarns in a 15-mile trend in the Bettle River area with the Evelyn Lee prospect in the center. Anomalous base and precious metals in strata-bound massive sulfides were identified surrounding Ernie Lake in the northern corner of the planning area. Additionally, a 62-mile belt of ophiolitic (uplifted oceanic mantle) rock with anomalies of chromite and nickel extends northeast from the north side of the Ray Mountains. Other anomalies from the study include gold values at upper Indian River and around the Jim River Pluton.

N.8.4 Historical Mineral Development

In the late nineteenth and early twentieth centuries, prospectors discovered gold in Coldfoot and Wiseman and then as far as the Hogatza River. The gold rush started to fade by 1910, and gold production waxed and waned in response to fluctuations in the rest of the economy, occasional new discoveries, and changes in technology like the initiation of mechanized mining.

Gold was set at $20 per troy ounce for much of early years of Alaska's development. The price was increased by the government to $35 per troy ounce in 1934 in response to the Great Depression. It remained set around $35 to $40 until the price was allowed to be based on market demand starting in 1971. The price then slowly climbed. By early 1980, in response to escalating monetary inflation, the price climbed to an unadjusted price of about $600 per ounce. The withdrawals of certain lands from mineral development associated with Alaska Native Claims Settlement Act were implemented in 1971; these lands have been closed to mineral entry since the price of gold was $40 per ounce (approximately $249 per ounce in 2018 dollars). The average price of gold for the last 10 years has been $1,265 per ounce (Kitco.com 2018). As a result, lands with pre-1971 mining claims are considered high potential for development should restrictions be revoked.

N.8.5 Mining Claims

The USGS mineral potential layers and the ARDF mineral occurrence layers are independent of land status. Many of the known occurrences were located before the broad-scale withdrawals. The USGS data are based on individual geochemical samples collected regardless of land status, often before land tenure was established.

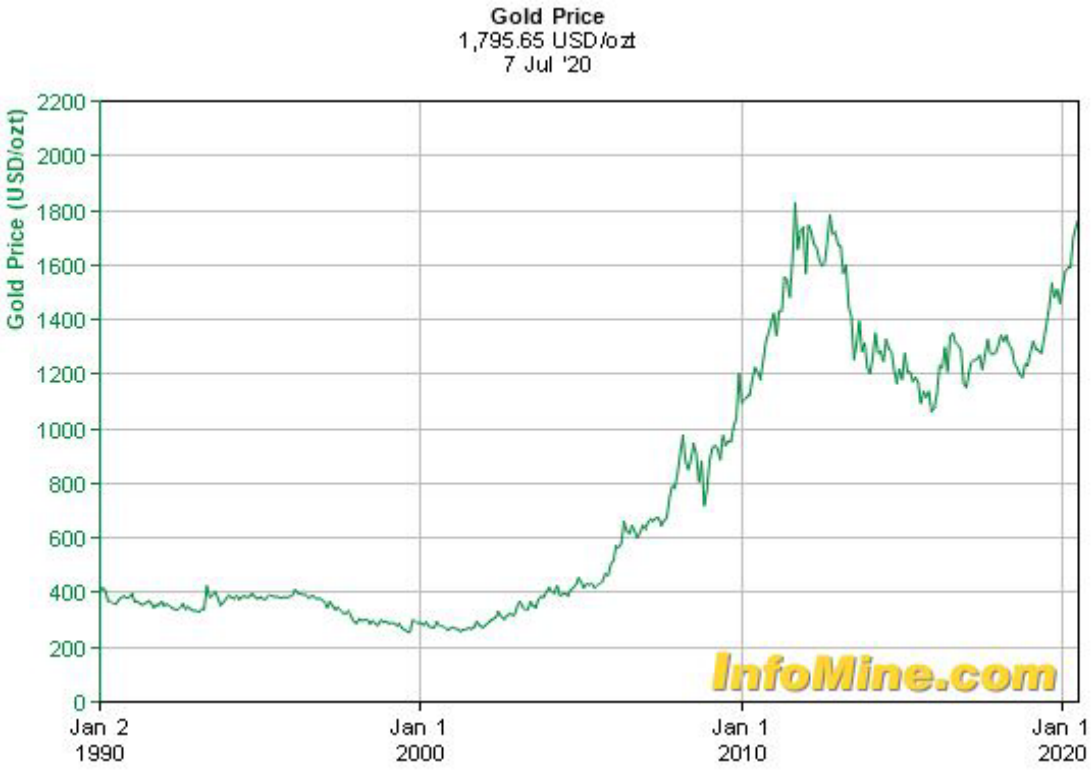
There are 4,967 state mining claims in the planning area, down from 5,685 in 2013. There are 41 state prospecting permits, down from 305. The number of federal claims is also reduced at 621 (down from 1,411 in 2013). The prevalence of mining claims acts as a surrogate for weighting and averaging gold and other commodity prices. Closed mining claims are given a statistical weight. This structure will give mining claims located in recent years a greater chance to influence future mineral potential. This structure also captures the dynamic nature of precious metal price variations; gold prices went from a low in 2003 to historic highs in 2011 and 2012, and through a substantial decline and recovery in recent years (**Figure N-4**). To incorporate and properly score the value of mining claims to future mineral potential, undigitized and closed mining claims are given a greater value when located on closed, selected, or Native corporation lands than on lands open to mineral entry, such as state lands or open federal lands.

Patented mining claims have a high potential for mineral development but are no longer BLM-managed land; however, there is a high likelihood that there would be mining activity on those and adjacent lands, so they are considered high potential.

N.8.6 Active Mining Operations

The location of active mining operations based on the Application for Permits to Mine in Alaska (APMA) submitted in 2014 were used to indicate the level of mining activity in the planning area regardless of land status. All federal and state operations use the APMA application and its automated and multi-agency distribution system to facilitate permit processing. It is used for mechanical placer mining, hard rock exploration operations, suction dredges larger than 6 inches on state lands, and all dredges on federal lands. The year 2014 was selected because it most closely matches the average for commodity prices for the last 10 years. It is also average for the number of claims and operations.

Figure N-4. Gold Price 1990 Through 2019



Source: Infomine.com 2020

In the last 10 years there have been 1,270 APMAs filed, with a breakdown of types shown in **Table N-1**, below.

Table N-1
Applications for Permits to Mine in Alaska by Type

Year	Exploration	Suction Dredge	Placer
2008-2017	85	43	954
2014	9	3	62

Source: Hoppe 2018

Of the 74 APMAs filed in 2014, 13 were federal, three were on private lands, 55 were on state land, one was on borough land, and two were on split estate. Review of the 2014 APMAs shows that an average exploration project has 10 employees, disturbs 0.75 acres of land, and processes or moves 3,173 yards of material. Exploration is not segregated into hard rock and placer in records. Placer exploration generally moves a larger volume of material than hard rock exploration.

In 2014, the average suction dredge operation employed 1.6 people, disturbed 0.8 acres, and processed 3,560 yards of material. This sample is too small to draw conclusions from because suction dredging is occasionally combined with mechanical mining as a final bedrock cleanup technique. An APMA is required for all BLM-authorized operations, but dredges with nozzles smaller than 6 inches are considered recreational and do not require an APMA on state lands.

The average mechanical placer mining operation has 3 workers, disturbs 5.3 acres of land, and excavates 18,000 cubic yards of material.

Exploration is occurring in the Ambler Mining District with a multimillion-dollar investment in the Upper Kobuk Mineral Projects joint venture between South32 and Trilogy Metals. The projects have an estimated combined resource of 8 billion pounds of copper, 3 billion pounds of zinc, and 1 million ounces of gold equivalent (Jamasmie 2019).

N.8.7 Land Status and Selected Lands

Assessing the effect of land status in the planning area with various land management agencies and private landowners complicates the projection of locatable mineral development. It is assumed that all state land is open to location and entry under the mining laws except for fish and wildlife preserves and state parks.

The lands in the planning area are significantly remote by most standards, and any location of a mining claim is considered an act of significant mineral interest and the assertion of the existence of mineral development potential. Interim conveyed or patented Native corporation's lands, now being private land, are closed to BLM mining claims; however, the Native corporations locally consider leases to develop mineral resources. The BLM has the recorded locations of pre-1968 mining claims on selected state and Native corporation lands to within the nearest section or quarter section of land.

Accordingly, closed mining claims on areas withdrawn since the early 1970s may be one of the best indications of mineral development potential. In the planning area there were 8,223 federal mining claims that all closed before the year 2000. There are also 185 closed federal mining claims that were excluded from earlier conveyances to the state. These lands will either be conveyed to the State of Alaska, or they could become available for location of new mining claims if withdrawals are revoked.

N.8.8 2016 USGS Strategic Mineral Evaluation

The USGS Alaska Science Center described in Open-File Report 2016-1191 (Karl et al. 2016) the data-driven mineral evaluation of the potential for the occurrence of critical minerals associated with six mineral deposit models, with the assessment of gold and platinum placer deposits being of primary interest.

The USGS used publicly available regional-geochemistry sampling as a primary data set. These data were spatially compared to geophysical survey data, the ARDF dataset, and the digital "Geologic Map of Alaska" published by the USGS Alaska (Wilson et al. 2015). The evaluation assigned a mineral potential score to the geographic extent of each local watershed (an area averaging about 39 square miles). The analysis not only systematically determined the relative potential for unknown mineral occurrences but also scored relative

confidence based on attributes of the datasets. The assessment emphasis was on regional soil, stream, and representative rock samples, with some emphasis on geophysical data.

This assessment for strategic minerals provides an objective assessment of undiscovered mineral potential in Alaska, but only for strategic minerals. Of the six deposit types evaluated in this study, only placer gold is produced in a significant way in the planning area. **Figure N-5**, from the Alaska's Mineral Industry 2015 Report (Athey et al. 2016), shows that the money spent on strategic and critical minerals was only a small fraction of exploration expenditures. Accordingly, the strategic mineral evaluation was currently given very little statistical weight in determining mineral development potential.

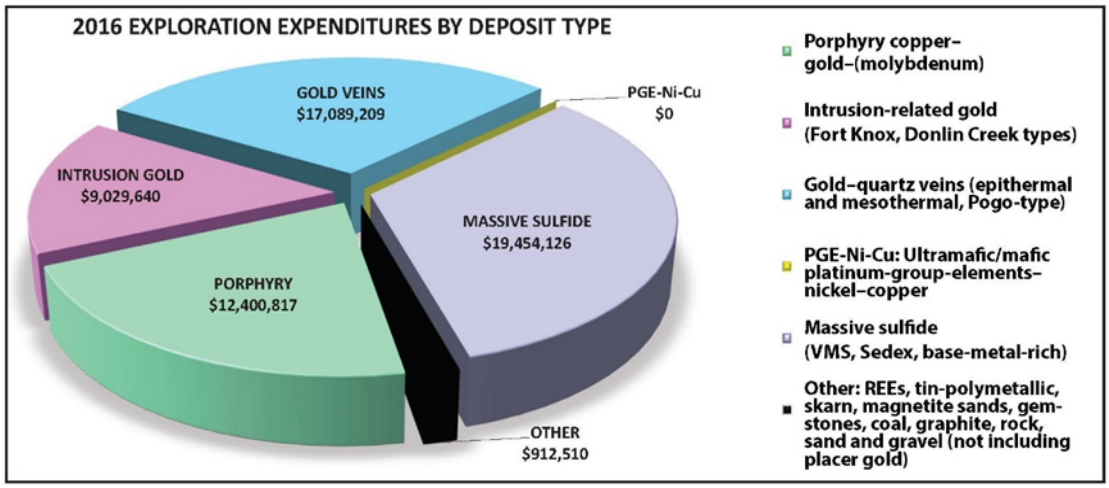
N.8.9 2018 USGS Lode Gold Evaluations

Starting in the latter half of 2016 and continuing through spring 2018, the USGS Alaska Minerals group has been evaluating three lode gold deposit types: orogenic lode gold, intrusive hosted gold, and epithermal lode gold deposit types. Their evaluation is identical to the 2016 assessment but with criteria specific for lode gold deposit types. Their separate lode gold model evaluations are combined into a single lode gold potential data layer. In their evaluation they found that the epithermal lode gold anomalies were spatially related to porphyry deposits.

Gold-bearing epithermal lode gold anomalies are known to radiate above and around porphyry intrusives. The epithermal gold may be used as a crude indicator of porphyry deposits if supplemented with ARDF and Alaska Mineral Information System data. The data were shared with the BLM in the summer of 2018, accompanied by the draft Open-file Report (Karl et al. 2016).

This evaluation is significant because exploration for lode gold deposit types in 2016 consumed most exploration expenditures (**Figure N-5**). Placer exploration comprised only about 6 percent of exploration (Freeman et al. 2015). Significant future exploration expenditure is expected to be dedicated to lode gold deposits.

Figure N-5. Mineral Industry Report – 2016



Source: Athey et al. 2016

N.9 GEOTHERMAL

Numerous hot springs exist in the planning area, and studies suggest that some would be suitable for geothermal electric generation; however, most hot springs are in remote areas, often far from any utility

connections or electricity markets. Additionally, the upfront costs of geothermal development are generally much greater than the costs associated with biomass generations systems, which are generally the favored replacement or supplement for diesel generators in remote Alaska towns and villages. No geothermal development is expected to occur on BLM-managed lands in the CYFO in the next 20 years.

N.10 Rare Earth Elements

USGS recently completed a study assessing mineral potential in the planning area (Jones et al. 2015). The study assessed the potential for rare earth element (REE) deposits associated with Peralkaline to Carbonatitic Igneous Rocks. The study pointed to two key areas, the Ruby Batholith and the Tofty mining district (Jones et al. 2015). Lands in both these areas are a mix of federal, state, and native lands.

The Ruby Batholith is north of the Yukon River, extending across much of the planning area in a southwest to northeast orientation. The Ruby Batholith is characterized by a discontinuous sheet of alluvial deposits rich in REEs, with a thickness of up to 325 feet in some areas. Rare earth mining company Ucore holds mining claims in the Ruby Batholith on either side of the Dalton Highway; material from the claims would be transportable via barge on the Yukon River during the summer season. Sampling is ongoing, but Ucore has not yet identified areas with REE concentrations high enough to be viable under current market conditions (Brehmer 2018). Ucore is working on plans to build an REE separation plant in Ketchikan, expected to be completed in 2020 (Brehmer 2018). Initially material will be supplied from other sites, but the plant location would be accessible by barge for any potential future operation in the Ruby Batholith.

The Tofty Ridge prospect near Manley Hot Springs has been extensively explored, including core drilling conducted by the U.S. Bureau of Mines and industry. Results from the exploration are 30 feet of trench rock sampling that average more than one percent REE (as cerium and lanthanum) and 0.15 percent niobium (Szumigala and Werdon 2011). The area has nearby road access and established placer gold mining, which could provide additional incentive for operators.

China controls almost all the current worldwide REE production capacity and can strategically influence prices by controlling the REE supply. REE pricing spiked in 2010 and 2011 due to export restrictions put in place by China; prices then crashed in 2015 due to a drastic increase in illegal exports by small-scale Chinese operators and production increases at non-Chinese operations (Home 2017; Treadgold 2015). These factors make the capital investment needed for new mining risky for operators. Overall development potential in the planning area is difficult to predict but is expected to be limited to continued exploration. The development of an operation in the Ruby Batholith is possible if Ucore exploration determines a favorable location and REE demand remains strong. A development in Tofty Ridge is unlikely, as no operators have yet filed an REE claim in the area.

N.11 References

Alaska Division of Geological and Geophysical Surveys. 2008. Annual Report 2008. State of Alaska, Department of Natural Resources. Internet website: http://dggs.alaska.gov/webpubs/dggs/ar/text/ar2008.pdf.

_____. 2012. Geologic Basins and Energy Resources of Alaska. Eds: R.F. Swenson, Wartes, M.A., LePain, D.L., and Clough, J.G. Special Report 66. Internet website: https://dggs.alaska.gov/pubs/id/24264 and https://dggs.alaska.gov/webpubs/dggs/sr/oversized/sr066_sh002.pdf.

Alaska Energy Authority. 2005a. Weather Station Wind Resource Summary for Bettles Field, Alaska. Internet website: http://www.ak-ea.org/Portals/0/Programs/Wind/WindResourceAssessment/BettlesField_StationSummary.pdf.

_____. 2005b. Weather Station Wind Resource Summary for Tanana (Calhoun Memorial Airport), Alaska. Internet website: http://www.ak-ea.org/Portals/0/Programs/Wind/WindResourceAssessment/Tanana(CalhounMemorialAirport)_StationSummary.pdf.

_____. 2005c. Results of Wind Monitoring Effort for Tanana, Alaska. Internet website: http://www.ak-ea.org/Portals/0/Programs/Wind/WindResourceAssessment/Tanana_wind-data-report.pdf.

American Gilsonite Company. 2018. What is Gilsonite? Internet website: http://www.americangilsonite.com/about-us/what-is-gilsonite/.

Anchorage Daily News (P. Forgey). 2016. Alaska's road to Nome appears dead but advocates not giving up. Published: November 25, 2013, Updated: September 28, 2016. Internet website: https://www.adn.com/alaska-news/article/alaskas-road-nome-appears-dead-advocates-not-giving/2013/11/26/.

AOGCC (Alaska Oil and Gas Conservation Commission). 2018. Data Miner 3. Internet website: http://aogweb.state.ak.us/DataMiner3/Forms/WellList.aspx.

Athey, J. E., M. B. Werdon, E. Twelker, and M. W. Henning. 2016. Alaska's mineral industry 2015: Alaska Division of Geological & Geophysical Surveys Special Report 71. Internet website: http://doi.org/10.14509/29687.

Brehmer, E. 2018. Alaska remains potential source for critical rare earth elements. Alaska Journal of Commerce. August 1, 2018. Internet website: http://www.alaskajournal.com/2018-08-01/alaska-remains-potential-source-critical-rare-earth-elements.

Data Basin. 2008. Alaska Oil and Gas Wells. Provided by Alaska Department of Natural Resources. Internet website: https://databasin.org/datasets/8afce595a77d4f6fb28c8f47261801c5.

Dixit, N., C. Hanks, A. J. Rizzo, P. McCarthy, and B. J. Coakley. 2017. Cenozoic tectonic and thermal history of the Nenana basin, central interior Alaska: New constraints from seismic reflection data, fracture history, and apatite fission-track analyses. Canadian Journal of Earth Sciences. 54. 10.1139/cjes-2016-0197. Internet website: https://www.researchgate.net/publication/315986861/download.

Doyon Limited. 2017. Doyon to Drill New Exploration Well in Nenana Basin. Internet website: https://www.doyon.com/doyon-to-drill-new-exploration-well-in-nenana-basin/.

Freeman, L. K., J. E. Athey, P. S. Lasley, and E. J Van Oss. 2015. Alaska's mineral industry 2014: Alaska Division of Geological & Geophysical Surveys Special Report 70. Internet website: http://doi.org/10.14509/29515.

GVEA (Golden Valley Electric Association). 2018. Eva Creek Wind Project. Internet website: https://www.gvea.com/eva-creek-wind/.

Home, A. 2017. Boom, bust and boom again for rare earths? Reuters. September 1, 2017. Internet website: https://www.reuters.com/article/us-china-rareearths-ahome/boom-bust-and-boom-again-for-rare-earths-idUSKCN1BC4OF.

Hoppe, J. 2018. Explanation of Data Used for Development of Mineral Potential Determinations for the CYRMP-RMP. BLM Alaska State Office, Anchorage.

Houseknecht, D. W., K. J. Whidden, C. D. Connors, R. O. Lease, C. J. Schenk, T. J. Mercier, W. A. Rouse, et al. 2020. Assessment of Undiscovered Oil and Gas Resources in the Central North Slope of Alaska, 2020: U.S. Geological Survey Fact Sheet 2020–3001. Internet website: https://pubs.usgs.gov/fs/2020/3001/fs20203001.pdf.

Infomine.com. 2020. Historical Gold Prices and Price Chart. Internet website: http://www.infomine.com/investment/metal-prices/gold/all/.

Jamasmie, C. 2019. South32, Trilogy Metals to jointly develop Alaska project. Mining-dot-com. December 20, 2019. Internet website: https://www.mining.com/south32-canadas-trilogy-metals-to-jointly-develop-alaska-project/.

Jones, J. V., III, S. M. Karl, K. A. Labay, N. B. Shew, M. Granitto, T. S. Hayes, J. L. Mauk, et al. 2015. GIS-based identification of areas with mineral resource potential for six selected deposit groups, Bureau of Land Management Central Yukon Planning Area, Alaska: U.S. Geological Survey Open-File Report 2015–1021. Internet website: https://pubs.er.usgs.gov/publication/ofr20151021.

Karl, S. M., J. V. Jones III, and T. S. Hayes (editors). 2016. GIS-based identification of areas that have resource potential for critical minerals in six selected groups of deposit types in Alaska: U.S. Geological Survey Open-File Report 2016–1191. Internet website: https://pubs.er.usgs.gov/publication/ofr20161191.

Kirschner, C. E. 1994. Sedimentary basins in Alaska. In: George Plafker and H. C. Berg (editors). The Geology of Alaska: Geological Society of America, 1 sheet, scale 1:2,500,000. Internet website: http://dggs.alaska.gov/webpubs/outside/oversized/dnag_plt07.pdf.

Kitco.com. 2018. Live Gold News, Gold Prices, 1 Year Gold. Internet website: https://www.kitco.com/.

Kurtak, J. M., R. F. Klieforth, J. M. Clark, and E. A. Maclean. 2002. Mineral Investigations in the Koyokuk Mining District, Northern Alaska. U.S. Bureau of Land Management Alaska. Technical Report 50. Internet website: https://www.blm.gov/sites/blm.gov/files/documents/files/Library_Alaska_TechnicalReport50_Volume2.pdf.

Macrotrends.com. 2018. Gold Prices—100 Year Historical Chart. Internet website: https://www.macrotrends.net/1333/historical-gold-prices-100-year-chart.

Nash, A., and C. Pike. 2018. Fifth Edition: A Solar Design Manual for Alaska. University of Alaska Fairbanks. Internet website: http://acep.uaf.edu/media/260463/EEM-01255_SolarDesignManual_5thEd201805.pdf.

Orris, G. J., M. D. Cocker, P. Dunlap, Jeff Wynn, G. T. Spanski, D. A. Briggs, and L. Gass, et al. 2014. Potash—A global overview of evaporite-related potash resources, including spatial databases of deposits, occurrences, and permissive tracts: U.S. Geological Survey Scientific Investigations Report 2010–5090–S and spatial data. Internet website: https://pubs.usgs.gov/sir/2010/5090/s/.

Patton, W. W., Jr., and J. J. Matzko. 1959. Phosphate deposits in northern Alaska. USGS Professional Paper 302-A. Internet website: https://pubs.usgs.gov/pp/0302a/report.pdf.

Swenson, R. F., M. A. Wartes, D. L. LePain, and J. G. Clough. 2012. Fossil fuel and geothermal energy resources for local use in Alaska: Summary of available information. Alaska Department of Natural Resources, Division of Geological and Geophysical Surveys Special Report 66. Internet website: http://dggs.alaska.gov/webpubs/dggs/sr/text/sr066.pdf.

Szumigala, D.J., and M. B. Werdon. 2011. Rare-Earth Elements: A brief overview including uses, worldwide resources, and known occurrences in Alaska: Alaska Division of Geological & Geophysical Surveys Information Circular 61. Internet website: http://doi.org/10.14509/22262.

The Alaska Climate Research Center. 2018. Fairbanks Wind Speed. Internet website: http://oldclimate.gi.alaska.edu/Climate/Wind/Speed/Fairbanks/FAI.html.

Treadgold, T. 2015. Chinese Rare Earth Glut Triggers a Price Collapse and Environmental Crisis. Forbes. May 15, 2015. Internet website: https://www.forbes.com/sites/timtreadgold/2015/05/15/chinese-rare-earth-glut-triggers-a-price-collapse-and-environmental-crisis/.

Usibelli Coal Mine. 2015. Company: About Us. Internet website: http://www.usibelli.com/company/about-us.

USGS (United States Geological Survey). 1973. Reconnaissance Geology of the Northern Yukon-Koyukuk Province, Alaska. W.W. Patton, JR. Geological Survey Professional Paper 774-A. Internet website: https://pubs.usgs.gov/pp/0774a/report.pdf.

_____. 1996. Environmental Studies of Mineral Deposits in Alaska. U.S. Geological Survey Bulletin 2156. Internet website: https://pubs.usgs.gov/bul/b2156/b2156.pdf.

_____. 2001. Coal Fields of the United States: Map Layer Description File. National Atlas of the United States of America. Internet Website: http://wvgis.wvu.edu/data/fullmetadata/Coal%20Fields%20of%20the%20United%20States.htm.

_____. 2005. Alaska Coal Geology, Resources, and Coalbed Methane Potential. R.M. Flores, G.D. Stricker, and S.A. Kinney. USGS Data Series 77. Internet website: https://pubs.usgs.gov/dds/dds-077/pdf/DDS-77.pdf.

_____. 2009. Geologic Map of the Yukon-Koyukuk Basin, Alaska. W.W. Patton, Jr., F.H. Wilson, K.A. Labay, and N. Shew. Scientific Investigations Map 2909. Internet website: https://pubs.usgs.gov/sim/2909/sim2909_pamphlet.pdf.

_____. 2015. GIS-based Identification of Areas with Mineral Resource Potential for Six Selected Deposit Groups, Bureau of Land Management Central Yukon Planning Area, Alaska. J. V. Jones, III, S. M. Karl, K. A. Labay, N. B. Shew, M. Granitto, T. S. Hayes, J. L. Mauk, et al.. . . . . Open-File Report 2015–1021. U.S. Geological Survey, Reston, Virginia. Internet website: https://doi.org/10.3133/ofr20161191.

Warner, J. D., C. l. Mardock, and D. C. Dahlin. 1986. A columbium-bearing regolith on upper Idaho Gulch, near Tofty, Alaska: U.S. Bureau of Mines Information Circular 9105. Internet website: http://dggs.alaska.gov/webpubs/usbm/ic/text/ic9105.pdf.

Wilson, F. H., C. P. Hults, C. G. Mull, and S. M. Karl. 2015. Geologic map of Alaska: U.S. Geological Survey Scientific Investigations Map 3340. Internet website: https://pubs.er.usgs.gov/publication/sim3340.

N.12 GLOSSARY

fluid minerals. Oil, gas, coal bed natural gas, and geothermal resources.

geothermal energy. Natural heat from within the Earth, captured for production of electric power, space heating, or industrial steam.

leasable minerals. Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920. They include coal, phosphate, asphalt, sulfur, potassium, and sodium minerals, and oil and gas. Geothermal resources are also leasable under the Geothermal Steam Act of 1970.

locatable minerals. Minerals subject to exploration, development, and disposal by staking mining claims as authorized by the Mining Law of 1872, as amended. This includes deposits of gold, silver, and other uncommon minerals not subject to lease or sale.

mineral. Any naturally formed inorganic material, solid, or fluid inorganic substance that can be extracted from the earth, any of various naturally occurring homogeneous substances (as stone, coal, salt, sulfur, sand, petroleum, water, or natural gas) obtained usually from the ground, under federal laws considered as locatable (subject to the general mining laws), leasable (subject to the Mineral Leasing Act of 1920), and salable (subject to the Materials Act of 1947).

mineral estate. The ownership of minerals, including rights necessary for access, exploration, development, mining, ore dressing, and transportation operations.

mining claim. A parcel of land that a miner takes and holds for mining purposes, having acquired the right of possession by complying with the Mining Law and local laws and rules. A mining claim may contain as many adjoining locations as the locator may make or buy. There are four categories of mining claims: lode, placer, millsite, and tunnel site.

Mining Law of 1872. Provides for claiming and gaining title to locatable minerals on public lands. Also referred to as the "General Mining Laws" or "Mining Laws."

rare earth elements. A group of seventeen chemical elements that occur together in the periodic table. The group consists of yttrium and the 15 lanthanide elements (lanthanum, cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, and lutetium).

reasonably foreseeable development scenario. The prediction of the type and amount of development activity that would occur in a given area. The prediction is based on availability of resource, history of extraction or production, projected demand for the resource, and industry interest.

right-of-way (ROW). Public lands authorized to be used or occupied for specific purposes pursuant to a right-of-way grant, which are in the public interest, and which require ROWs over, on, under, or through such lands.

Appendix O

Vegetation Communities and Wetland Resources

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ACRONYMS AND ABBREVIATIONS

	Full Phrase
BLM	Bureau of Land Management
CY REA	Central Yukon Rapid Ecological Assessment
CYRMP	Central Yukon Resource Management Plan
FO	Field Office
NLCD	National Land Cover Database
REA	rapid ecological assessment
U.S.	United States

Appendix O. Vegetation Communities and Wetland Resources

The following text describes the methods employed by the Bureau of Land Management (BLM) Central Yukon Field Office (FO) in developing a land cover map to cover the entire Central Yukon planning area to support the impacts analyses for the Central Yukon Resource Management Plan (CYRMP). The final product is a combination of the output of a model developed for the Central Yukon Rapid Ecoregional Assessment (CY REA, **Appendix G**) and the 2011 National Land Cover Database (NLCD) data. The final product to be used for the CYRMP resource impact analyses requiring a land-cover dataset was created using a multistep process as described below:

O.1 Step 1—Baseline Land Cover Type Selection

The primary component of the land cover map to be utilized for the CYRMP was developed to expand the boundaries of the CY REA mapping to the full planning area. The details of this work may be found in Section G of the Final CY REA report (https://accscatalog.uaa.alaska.edu/dataset/central-yukon-rapid-ecoregional-assessment).

The decision to rely primarily on the CY REA product is in keeping with the intention of the rapid ecological assessment (REA) to "collect and in some cases develop new distribution maps for key resource values." Affiliates with the University of Alaska Fairbanks, the Alaska Center for Conservation Science (formerly known as the Alaska Heritage Program) conducted the CY REA, which resulted in the creation of seven terrestrial coarse filter conservation elements. The conservation elements (or land cover types) are defined as regionally important habitat types that share similar vegetation and biophysical site characteristics, such as permafrost characteristics, surficial deposit, disturbance, and succession.

The rationale for using the CY REA model and the resulting habitat types is that the BLM Central Yukon FO regards this information as the best available for the planning area. Furthermore, it is the policy of the BLM to use [this] REA information and similar information from other large-scale assessments to help prepare land use plans and plan amendments; conduct cumulative impact analyses; establish development, restoration, and conservation priorities; develop best management practices; and authorize public land uses (https://www.blm.gov/policy/im-2013-082).

The CY REA involved the selection and modelling of seven habitat types. The types were derived using a combination of several existing datasets, including the Vegetation Map of Northern, Western and Interior Alaska; the NLCD; the Northern Alaska Subsections; the Circumboreal Vegetation Map; and the National Hydrography Dataset Flowlines. Section G of the REA Final Report (link provided above), entitled Terrestrial Coarse-filter Conservation Elements, provides the details of model development for seven habitat types.

The land cover types modeled for the CY REA and subsequently used for the CYRMP are as follows:

1. Floodplain forest and shrub (hereafter referred to as Riparian)
2. Lowland woody wetland
3. Upland mesic spruce-hardwood forest

4. Upland mesic spruce forest
5. Upland low and tall shrub
6. Alpine and Arctic tussock tundra
7. Alpine dwarf shrub tundra

These seven baseline land cover types accounted for 86 percent of the CY REA area; the remaining 14 percent of the REA study area was not accounted for as a part of the REA exercise.

O.2 Step 2—Expanding the REA Boundaries to the Entire Central Yukon FO Planning Area

The CYRMP planning area is not entirely congruous with the CY REA study area. Therefore, the BLM conducted an in-house effort to apply the conservation elements models to the entirety of the planning area in 2018/2019 using the methodology described in Section G of the CY REA. The BLM re-created the seven REA classes for the entirety of the CYRMP area and merged them together into one raster dataset (values of greater than 100 assigned).

O.3 Step 3—Accounting for Areas Not Classified by the REA Model Using NLCD

The decision was made that where the REA-modeled data had left blank pixels (17 percent of the planning area), those would be filled in with NLCD values (values 0–95 in the attribute table). As a result, an additional 11 of the following 13 NLCD classes were incorporated into the CYRMP land cover map for a total of 20 land cover types:

1. Unclassified (hereafter referred to as Off-shore/Ocean)
2. Perennial ice/snow
3. Developed
4. Barren land
5. Open water
6. Emergent herbaceous wetland
7. Grassland/herbaceous
8. Sedge/herbaceous
9. Moss
10. Cultivated crops
11. Pasture/hay
12. Evergreen forest
13. Dwarf shrub

O.4 Step 4—Combined Classifications

The two NLCD classes not incorporated into the CYRMP land cover map as stand-alone land cover types are Evergreen forest and Dwarf shrub. These two types were incorporated into the seven baseline REA types. The rationale for this is as follows:

- The Evergreen forest type was analyzed, and it was determined that the remnant evergreen forest areas had not been classified under the primary REA conservation element. Upland mesic spruce

forest under Step 1 occurred only in or near waterways. Therefore, the NLCD Evergreen forest type was combined under the REA Floodplain forest and shrub type.

- The Dwarf shrub type was analyzed, and it was determined that the remnant dwarf shrub areas that had not been classified only occurred in areas with significant topographic relief. Therefore, the NLCD Dwarf shrub type was combined under the REA Alpine dwarf shrub tundra type.

The final dataset provided by the BLM for the entire Central Yukon FO planning area consists of 18 distinct land cover types.

O.5 STEP 5—LAND COVER NAMING CONVENTIONS AND COMBINATIONS

The NLCD Unclassified areas were analyzed, and it was determined that these areas are actually not land cover types; they are offshore (ocean-covered) areas. Therefore, the NLCD class Unclassified has been renamed for the purposes of the resource management plan.

The four NLCD Developed types *(*Developed, Open Space; Developed, Low Intensity; Developed, Medium Intensity; Developed, High Intensity) were combined and are referred to as Developed.

The REA floodplain forest and shrub type (including the NLCD Evergreen class incorporated into that type) will be referred to as Riparian to avoid terminology confusion in the CYRMP document. The term "floodplain" is used in different contexts in other sections of the document.

O.6 STEP 6—CROSSWALK TO JURISDICTIONAL WETLAND CLASSES

To support the wetland resource impact analysis, the BLM used a crosswalk from the CYRMP land cover types to probable jurisdictional wetland and waters classes. The crosswalk was developed by the wetland resource specialist for the Central Yukon FO project using a process described in **Tables O-1** through **O-7** (below). The tables also include a table of acreages, classification scheme, and broad-scale wetland type descriptions. The crosswalking effort conservatively included some land cover classes, which may include some upland areas but are likely to be wetlands in most cases.

Table O-1. Vegetation Classes Mapped in the Central Yukon Planning Area

Vegetation Class Wetland Type	**Source**	**Description**	**Typical Species**
Open Water Waters of the United States (U.S.)	NLCD	Areas of open water, including marine nearshore water, estuarine waters, freshwater lakes and ponds, and permanently flooded riverine channels. Nearshore waters occur on a limited basis along the Beaufort Sea Coast; freshwaters occur throughout the planning area.	N/A
Emergent Herbaceous Wetlands Freshwater Emergent Wetlands	NLCD	Areas where perennial herbaceous vegetation accounts for greater than 80 percent of the total vegetative cover, and the soil or substrate is periodically saturated or covered with water. Includes aquatic marshes and wet sedge meadows. Aquatic marshes are associated with lacustrine fringe areas throughout the planning area, and wet sedge meadows are typical of North Slope tundra.	**Sedges:** *Carex aquatilis, Eriophorum angustifolium* **Other Herbaceous:** *Arctophila fulva*
Sedge/Herbaceous Freshwater Emergent Wetlands	NLCD	Areas dominated by sedges and forbs, including tussock tundra and other sedge-dominated tundra types. Most commonly occurring in tundra areas north of the Brooks Range. Typically, a saturated hydrologic regime.	**Sedges:** *Eriophorum vaginatum, Carex bigelowii* **Shrubs:** *Betula nana, Ledum decumbens, Vaccinium vitis-idaea, Rubus chamaemorus, Salix pulchra, V. uliginosum, B. glandulosa, Empetrum nigrum, Cassiope tetragona* **Mosses:** *Sphagnum* spp.*, Aulacomnium* spp.*, Hylocomium splendens* **Lichens:** *Cladina* spp.*, Flavocetraria* spp.
Grassland/Herbaceous Freshwater Emergent Wetlands	NLCD	Areas dominated by graminoid or herbaceous vegetation. Within the planning area, they may be common in old fire scars in early stages of revegetation. Likely includes a range of hydrologic regimes, from dry, well-drained meadows to seasonally flooded riparian areas.	**Other Herbaceous:** *Calamagrostis canadensis*
Alpine-Arctic Tussock Tundra Freshwater Emergent Wetlands	CY REA	Occurs in arctic Alaska, and on gentle slopes near or above treeline in the boreal region. This vegetation class is defined by the presence of tussock-forming sedges. Dwarf and low shrubs are often also important components of the community. Soils are typically poorly drained and acidic, with a poorly decomposed surface organic horizon.	**Sedges:** *Eriophorum vaginatum, Carex bigelowii* **Shrubs:** *Betula nana, Ledum decumbens, Vaccinium vitis-idaea, Rubus chamaemorus, Salix pulchra, V. uliginosum, B. glandulosa, Empetrum nigrum, Cassiope tetragona* **Mosses:** *Sphagnum* spp.*, Aulacomnium* spp.*, Hylocomium splendens* **Lichens:** *Cladina* spp.*, Flavocetraria* spp.

Vegetation Class Wetland Type	**Source**	**Description**	**Typical Species**
Lowland Woody Wetland	CY REA	Occurs throughout the boreal region on lowland sites, including flat to gently sloping valley bottoms and abandoned floodplains. Soils are poorly drained and acidic, and a well-developed peat layer is often present. Permafrost is typically discontinuous. This vegetation class includes wetlands with needle-leaved tree species as well as sedge-shrub bogs and fens.	**Trees:** *Picea mariana, P. glauca* **Shrubs:** *Ledum groenlandicum, L. decumbens, Betula nana, B. glandulosa, Vaccinium uliginosum, V. vitis-idaea, Empetrum nigrum, Dasiphora fruticosa* **Sedges:** *Eriophorum vaginatum, E. angustifolium, Carex bigelowii* **Other Herbaceous:** *Calamagrostis canadensis, Equisetum* spp. **Mosses:** *Sphagnum* spp.*, Hylocomium splendens, Pleurozium schreberi*
Riparian Forest and Shrub Freshwater Shrub Wetlands	CY REA	Occurs on floodplains throughout the boreal region; strongly influenced by fluvial processes. This vegetation class includes a mix of successional stages from pioneer communities on active floodplains to white spruce forests in late seral stages.	**Trees:** *Picea glauca, Populus balsamifera* **Shrubs:** *Salix* spp. *(*especially *S. alaxensis), Alnus* spp.*, Rosa acicularis, Viburnum edule, Shepherdia canadensis* **Other Herbaceous:** *Calamagrostis canadensis, Equisetum arvense, Chamerion latifolium, Hedysarum alpinum, Mertensia paniculata* **Mosses:** *Hylocomium splendens*
Alpine Dwarf Shrub Tundra Uplands	CY REA	Widespread above tree line on ridges, summits, and side slopes, and in snowbeds and high-elevation valleys. This vegetation class is dominated by dwarf and prostrate shrubs, with cover ranging from continuous on protected sites to sparse in exposed areas. Soils are typically thin, stony, and well-drained. Permafrost may be present.	**Shrubs:** *Dryas octopetala, Vaccinium uliginosum, V. vitis-idaea, Ledum decumbens, Kalmia procumbens, Empetrum nigrum, Diapensia lapponica, Cassiope tetragona, Betula nana, Salix arctica, S. phlebophylla, S. rotundifolia, S. reticulata, Arctous rubra, A. alpina* **Sedges:** *Carex bigelowii, C. michrochaeta* **Other Herbaceous:** *Anthoxanthum monticola, Festuca altaica,* numerous forb species **Mosses:** *Hylocomium splendens, Racomitrium lanuginosum, Rhytidium rugosum, Dicranum* spp., *Polytrichum* spp. **Lichens:** *Cladina* spp.*, Flavocetraria* spp.*, Alectoria* spp.*, Stereocaulon* spp.*, Thamnolia vermicularis*

Vegetation Class Wetland Type	**Source**	**Description**	**Typical Species**
Upland Low and Tall Shrub Uplands	CY REA	Occurs throughout the boreal region. Includes low shrub tundra dominated by birch and low willows, as well as tall shrub thickets of alders and/or willows. Soils are usually well-drained to mesic, with shallow organic layer. Permafrost is often present.	**Tall Shrubs:** *Alnus* spp.*, Salix pulchra, S. glauca, S. bebbiana* **Low Shrubs:** *Betula glandulosa, B. nana, Ledum groenlandicum, L. decumbens, Vaccinium uliginosum, V. vitis-idaea, Empetrum nigrum* **Other Herbaceous:** *Calamagrostis canadensis, Chamerion angustifolium, Equisetum arvense, Sanguisorba canadensis* **Mosses:** *Hylocomium splendens, Pleurozium schreberi* **Lichens:** *Cladina* spp.
Upland Mesic Spruce Forest Uplands	CY REA	Occurs throughout boreal Alaska from the south slopes of the Brooks Range to the north slopes of the Alaska Range. Soils are cold and well-drained with minimal peat layer. Canopy is typically open to woodland, with well-developed understory of low and dwarf shrubs.	**Trees:** *Picea glauca, P. mariana* **Shrubs:** *Alnus* spp.*, Betula nana, B. glandulosa, Vaccinium uliginosum, Ledum groenlandicum, L. decumbens, Salix pulchra, Rosa acicularis, Empetrum nigrum, Spiraea steveni* **Other Herbaceous:** *Calamagrostis canadensis, Cornus canadensis, Equisetum sylvaticum* **Mosses:** *Hylocomium splendens, Pleurozium schreberi* **Lichens:** *Cladina* spp.
Upland Mesic Spruce-Hardwood Forest Uplands	CY REA	Occurs on upland terrain from the south slopes of the Brooks Range to south-central Alaska. Soils are well-drained, and permafrost is discontinuous. This class contains all postfire seral stages, including needle-leaved evergreen, broad-leaved deciduous, and mixed forests. Mature stands often have an open canopy with a well-developed shrub layer.	**Trees:** *Picea glauca, Betula neoalaskana, Populus tremuloides* **Shrubs:** *Alnus spp., B. glandulosa, Rosa acicularis, Ledum decumbens, L. groenlandicum, Salix glauca*, *Vaccinium uliginosum, V. vitis-idaea, Linnaea borealis* **Other Herbaceous:** *Calamagrostis canadensis, Equisetum arvense, E. sylvaticum, Gymnocarpium dryopteris* **Mosses:** *Hylocomium splendens*
Barren Land Uplands	NLCD	Areas of bare soil or rock, generally with less than 15 percent total vegetation cover. Where vegetation occurs, it typically consists of dwarf shrub, lichens, and mosses that are tolerant of dry hydrologic conditions	N/A
Developed Uplands	NLCD	Areas with a mixture of constructed materials and vegetation (includes all four levels of development intensity from the NLCD)	N/A

Vegetation Class Wetland Type	**Source**	**Description**	**Typical Species**
Perennial Ice/Snow Uplands	NLCD	Areas characterized by a perennial cover of ice or snow, or both, generally greater than 25 percent of the total cover. This class is typically a mixture of rocky barrens, and ice and snow.	N/A

Table O-2. Areas Open to Locatable Mineral Entry [a] by Alternative, by Vegetation Class and Wetland Type

Vegetation Class Wetland Type	**A Acres**	**A %**	**B Acres**	**B %**	**C1 Acres**	**C1%**	**C2 Acres**	**C2 %**	**D Acres**	**D %**	**E Acres**	**E %**
Open Water Waters of the U.S.	32,000	<1	47,000	<1	51,000	<1	58,000	<1	58,000	<1	32,000	<1
Emergent Herbaceous Wetlands Freshwater Emergent Wetlands	17,000	<1	29,000	<1	30,000	<1	32,000	<1	32,000	<1	17,000	<1
Sedge/Herbaceous Freshwater Emergent Wetlands	40,000	1	86,000	1	90,000	1	102,000	1	102,000	1	40,000	<1
Grassland/Herbaceous Freshwater Emergent Wetlands	292,000	4	378,000	3	383,000	3	396,000	3	396,000	3	293,000	4
Alpine-Arctic Tussock Tundra Freshwater Emergent Wetlands	106,000	1	432,000	4	450,000	4	533,000	4	533,000	4	109,000	1
Lowland Woody Wetland Freshwater Shrub Wetlands	359,000	4	428,000	4	451,000	4	465,000	4	465,000	4	359,000	4
Riparian Forest and Shrub Freshwater Shrub Wetlands	300,000	4	392,000	3	423,000	3	458,000	4	458,000	4	304,000	4
Alpine Dwarf Shrub Tundra Uplands	563,000	7	1,167,000	10	1,256,000	10	1,432,000	11	1,432,000	11	565,000	7
Upland Low and Tall Shrub Uplands	3,390,000	41	4,456,000	39	4,746,000	39	5,009,000	39	5,009,000	39	3,414,000	41
Upland Mesic Spruce Forest Uplands	2,263,000	27	2,901,000	25	2,953,000	24	3,035,000	24	3,035,000	24	2,273,000	27
Upland Mesic Spruce-Hardwood Forest Uplands	767,000	9	1,045,000	9	1,096,000	9	1,112,000	9	1,112,000	9	772,000	9
Barren Land Uplands	111,000	1	194,000	2	214,000	2	257,000	2	257,000	2	111,000	1
Developed Uplands	0	0	0	0	0	0	7,000	<1	7,000	<1	0	0
Perennial Ice/Snow Uplands	1,000	<1	1,000	<1	1,000	<1	3,000	<1	3,000	<1	1,000	<1
Totals	**8,241,000**	**100**	**11,557,000**	**100**	**12,145,000**	**100**	**12,899,000**	**100**	**12,899,000**	**100**	**8,290,000**	**100**

Note: The acreages displayed here are rounded for ease of interpretation. Due to this, the sum of individual acreages may not match the total and percentages do not always add exactly to 100. [a] Percentages for each alternative are the percentages of the total open area occupied by each vegetation class/wetland type.

Table O-3. Areas with High Potential Open to Locatable Mineral Entry [a,b] by Alternative, by Vegetation Class/ Wetland Type

Vegetation Class Wetland Type	**A Acres**	**A %**	**B Acres**	**B %**	**C1 Acres**	**C1%**	**C2 Acres**	**C2 %**	**D Acres**	**D %**	**E Acres**	**E %**
Open Water Waters of the U.S.	1,000	<1	1,000	<1	1,000	<1	1,000	<1	1,000	<1	1,000	<1
Emergent Herbaceous Wetlands Freshwater Emergent Wetlands	0	0	0	0	0	0	0	0	0	0	0	0
Sedge/Herbaceous Freshwater Emergent Wetlands	1,000	<1	1,000	<1	2,000	1	2,000	1	2,000	1	0	0
Grassland/Herbaceous Freshwater Emergent Wetlands	2,000	1	2,000	1	3,000	1	3,000	1	3,000	1	2,000	1
Alpine-Arctic Tussock Tundra Freshwater Emergent Wetlands	4,000	2	4,000	2	5,000	2	5,000	2	5,000	2	2,000	1
Lowland Woody Wetland Freshwater Shrub Wetlands	5,000	2	5,000	2	5,000	2	5,000	2	5,000	2	3,000	2
Riparian Forest and Shrub Freshwater Shrub Wetlands	14,000	6	14,000	6	18,000	7	18,000	7	18,000	7	8,000	4
Alpine Dwarf Shrub Tundra Uplands	38,000	17	39,000	17	40,000	15	40,000	15	40,000	15	34,000	18
Upland Low and Tall Shrub Uplands	115,000	51	116,000	51	139,000	52	139,000	52	139,000	52	103,000	54
Upland Mesic Spruce Forest Uplands	28,000	12	28,000	12	36,000	13	36,000	13	36,000	13	22,000	12
Upland Mesic Spruce-Hardwood Forest Uplands	12,000	5	12,000	5	13,000	5	13,000	5	13,000	5	10,000	5
Barren Land Uplands	6,000	3	6,000	3	6,000	2	6,000	2	6,000	2	5,000	3
Developed Uplands	0	0	0	0	0	0	1,000	<1	1,000	<1	0	0
Perennial Ice/Snow Uplands	0	0	0	0	0	0	0	0	0	0	0	0
Totals	**226,000**	**100**	**227,000**	**100**	**268,000**	**100**	**268,000**	**100**	**265,000**	**100**	**189,000**	**100**

Note: The acreages displayed here are rounded for ease of interpretation. Due to this, the sum of individual acreages may not match the total and percentages do not always add exactly to 100. [a] Percentages for each alternative are the percentages of the total open area occupied by each vegetation class/wetland type. [b] It should be noted that mineral development generally occurs in valley bottoms where upland vegetation is not present.

Table O-4. Areas Open to Right-of-Way Location [a] by Alternative, by Vegetation Class and Wetland Type

Vegetation Class Wetland Type	**A Acres**	**A %**	**B Acres**	**B %**	**C1 Acres**	**C1%**	**C2 Acres**	**C2 %**	**D Acres**	**D %**	**E Acres**	**E %**
Open Water Waters of the U.S.	58,000	<1	23,000	<1	40,000	<1	56,000	<1	58,000	<1	40,000	<1
Emergent Herbaceous Wetlands Freshwater Emergent Wetlands	31,000	<1	15,000	<1	25,000	<1	31,000	<1	31,000	<1	25,000	<1
Sedge/Herbaceous Freshwater Emergent Wetlands	104,000	1	39,000	1	79,000	1	100,000	1	104,000	1	82,000	1
Grassland/Herbaceous Freshwater Emergent Wetlands	396,000	3	211,000	4	356,000	4	387,000	3	396,000	3	378,000	3
Alpine-Arctic Tussock Tundra Freshwater Emergent Wetlands	512,000	4	243,000	4	419,000	4	479,000	4	512,000	4	444,000	4
Lowland Woody Wetland Freshwater Shrub Wetlands	468,000	4	261,000	5	412,000	4	458,000	4	468,000	4	418,000	4
Riparian Forest and Shrub Freshwater Shrub Wetlands	464,000	3	162,000	3	263,000	3	440,000	4	464,000	3	283,000	2
Alpine Dwarf Shrub Tundra Uplands	1,419,000	11	331,000	6	691,000	7	1,247,000	10	1,419,000	11	1,191,000	10
Upland Low and Tall Shrub Uplands	5,091,000	39	2,030,000	37	3,839,000	39	4,665,000	39	5,091,000	39	4,469,000	39
Upland Mesic Spruce Forest Uplands	3,081,000	24	1,620,000	29	2,660,000	27	2,949,000	24	3,081,000	24	2,840,000	25
Upland Mesic Spruce-Hardwood Forest Uplands	1,122,000	9	598,000	11	914,000	9	1,050,000	9	1,122,000	9	1,012,000	9
Barren Land Uplands	248,000	2	17,000	<1	41,000	<1	228,000	2	248,000	2	221,000	2
Developed Uplands	7,000	<1	4,000	<1	6,000		7,000	<1	7,000	<1	6,000	<1
Perennial Ice/Snow Uplands	4,000	<1	1,000		3,000		4,000	<1	4,000	<1	3,000	<1
Totals	**13,005,000**	**100**	**5,555,000**	**100**	**9,748,000**	**100**	**12,101,000**	**100**	**13,005,000**	**100**	**11,412,000**	**100**

Note: The acreages displayed here are rounded for ease of interpretation. Due to this, the sum of individual acreages may not match the total and percentages do not always add exactly to 100. [a] Percentages for each alternative are the percentages of the total open area occupied by each vegetation class/wetland type.

Table O-5. Areas Open to Mineral Materials Disposal [a] by Alternative, by Vegetation Class and Wetland Type

Vegetation Class Wetland Type	**A Acres**	**A %**	**B Acres**	**B %**	**C1 Acres**	**C1%**	**C2 Acres**	**C2 %**	**D Acres**	**D %**	**E Acres**	**E %**
Open Water Waters of the U.S.	56,000	<1	30,000	<1	51,000	<1	55,000	<1	56,000	<1	49,000	<1
Emergent Herbaceous Wetlands Freshwater Emergent Wetlands	30,000	<1	21,000	<1	29,000	<1	30,000	<1	30,000	<1	27,000	<1
Sedge/Herbaceous Freshwater Emergent Wetlands	96,000	1	43,000	1	86,000	1	90,000	1	96,000	1	88,000	1
Grassland/Herbaceous Freshwater Emergent Wetlands	396,000	3	296,000	4	386,000	3	387,000	3	396,000	3	391,000	3
Alpine-Arctic Tussock Tundra Freshwater Emergent Wetlands	437,000	3	234,000	3	346,000	3	367,000	4	437,000	3	420,000	3
Lowland Woody Wetland Freshwater Shrub Wetlands	468,000	4	325,000	4	458,000	4	463,000	4	468,000	4	444,000	4
Riparian Forest and Shrub Freshwater Shrub Wetlands	456,000	4	206,000	3	396,000	3	435,000	4	456,000	4	361,000	3
Alpine Dwarf Shrub Tundra Uplands	1,330,000	10	636,000	8	1,040,000	9	1,150,000	10	1,331,000	10	1,231,000	10
Upland Low and Tall Shrub Uplands	5,070,000	40	3,014,000	38	4,579,000	40	4,715,000	39	5,074,000	40	4,827,000	40
Upland Mesic Spruce Forest Uplands	3,081,000	24	2,221,000	28	2,932,000	25	2,968,000	25	3,081,000	24	2,936,000	24
Upland Mesic Spruce-Hardwood Forest Uplands	1,122,000	9	861,000	11	1,075,000	9	1,083,000	9	1,122,000	9	1,084,000	9
Barren Land Uplands	228,000	2	114,000	1	194,000	2	213,000	2	229,000	2	207,000	2
Developed Uplands	7,000	<1	4,000	<1	6,000	<1	7,000	<1	7,000	<1	7,000	<1
Perennial Ice/Snow Uplands	3,000	<1	0	0	1,000	<1	2,000	<1	3,000	<1	3,000	<1
Totals	**12,779,000**	**100**	**8,004,000**	**100**	**11,581,000**	**100**	**11,964,000**	**100**	**12,787,000**	**100**	**12,075,000**	**100**

Note: The acreages displayed here are rounded for ease of interpretation. Due to this, the sum of individual acreages may not match the total and percentages do not always add exactly to 100. [a] Percentages for each alternative are the percentages of the total open area occupied by each vegetation class/wetland type.

Table O-6. Areas Open to Forest Harvest [a] by Alternative, by Vegetation Class and Wetland Type

Vegetation Class Wetland Type	A Acres	A %	B Acres	B %	C1 Acres	C1%	C2 Acres	C2 %	D Acres	D %	E Acres	E %
Open Water Waters of the U.S.	58,000	<1	33,000	<1	40,000	<1	40,000	<1	40,000	<1	40,000	<1
Emergent Herbaceous Wetlands Freshwater Emergent Wetlands	31,000	<1	21,000	<1	25,000	<1	25,000	<1	25,000	<1	25,000	<1
Sedge/Herbaceous Freshwater Emergent Wetlands	104,000	1	71,000	1	87,000	1	87,000	1	87,000	1	87,000	1
Grassland/Herbaceous Freshwater Emergent Wetlands	396,000	3	348,000	4	385,000	3	385,000	3	385,000	3	385,000	3
Alpine-Arctic Tussock Tundra Freshwater Emergent Wetlands	512,000	4	421,000	4	479,000	4	480,000	4	480,000	4	480,000	4
Lowland Woody Wetland Freshwater Shrub Wetlands	468,000	4	354,000	4	425,000	4	425,000	3	425,000	3	425,000	4
Riparian Forest and Shrub Freshwater Shrub Wetlands	464,000	3	220,000	2	295,000	2	296,000	2	296,000	2	296,000	2
Alpine Dwarf Shrub Tundra Uplands	1,419,000	10	1,056,000	11	1,305,000	11	1,370,000	11	1,370,000	11	1,370,000	10
Upland Low and Tall Shrub Uplands	5,091,000	43	3,868,000	39	4,867,000	40	4,906,000	40	4,906,000	40	4,906,000	39
Upland Mesic Spruce Forest Uplands	3,081,000	22	2,425,000	25	2,958,000	24	2,960,000	24	2,960,000	24	2,960,000	25
Upland Mesic Spruce-Hardwood Forest Uplands	1,122,000	8	897,000	9	1,078,000	9	1,079,000	9	1,079,000	9	1,079,000	9
Barren Land Uplands	248,000	2	186,000	2	231,000	2	245,000	2	245,000	2	245,000	2
Developed Uplands	7,000	<1	4,000	<1	6,000	<1	6,000	<1	6,000	<1	6,000	1
Perennial Ice/Snow Uplands	4,000	<1	3,000	<1	4,000	<1	4,000	<1	4,000	<1	4,000	<1
Totals	**13,006,000**	**100**	**9,909,000**	**100**	**12,185,000**	**100**	**12,307,000**	**100**	**12,307,000**	**100**	**12,307,000**	**100**

Note: The acreages displayed here are rounded for ease of interpretation. Due to this, the sum of individual acreages may not match the total and percentages do not always add exactly to 100. [a] Percentages for each alternative are the percentages of the total open area occupied by each vegetation class/wetland type.

Table O-7. Areas of Critical Environmental Concern/Research Natural Areas [b], by Alternative by Vegetation Class/Wetland Type [a]

Vegetation Class Wetland Type	**A Acres**	**A %**	**B Acres**	**B %**	**C1 Acres**	**C1%**	**C2 Acres**	**C2 %**	**E Acres**	**E %**
Open Water Waters of the U.S.	6,000	<1	17,000	<1	6,000	1	1,000	1	16,000	<1
Emergent Herbaceous Wetlands Freshwater Emergent Wetlands	2,000	<1	6,000	<1	1,000	<1	0	0	6,000	<1
Sedge/Herbaceous Freshwater Emergent Wetlands	23,000	1	41,000	1	7,000	2	2,000	3	37,000	1
Grassland/Herbaceous Freshwater Emergent Wetlands	67,000	4	87,000	2	1,000	<1	0	0	85,000	2
Alpine-Arctic Tussock Tundra Freshwater Emergent Wetlands	99,000	6	174,000	4	63,000	15	37,000	48	149,000	4
Lowland Woody Wetland Freshwater Shrub Wetlands	57,000	3	115,000	3	4,000	1	0	0	113,000	3
Riparian Forest and Shrub Freshwater Shrub Wetlands	49,000	3	173,000	4	39,000	9	0	0	158,000	4
Alpine Dwarf Shrub Tundra Uplands	316,000	18	619,000	15	137,000	33	28,000	36	512,000	14
Upland Low and Tall Shrub Uplands	763,000	44	1,721,000	43	97,000	23	6,000	8	1,508,000	42
Upland Mesic Spruce Forest Uplands	239,000	14	754,000	19	32,000	8	0	0	720,000	20
Upland Mesic Spruce-Hardwood Forest Uplands	89,000	5	227,000	6	7,000	2	0	0	218,000	6
Barren Land Uplands	37,000	2	100,000	2	22,000	5	1,000	1	88,000	2
Developed Uplands	0	0	2,000	<1	1,000	<1	0	0	1,000	<1
Perennial Ice/Snow Uplands	2,000	<1	2,000	<1	2,000	<1	2,000	3	2,000	<1
Totals	**1,749,000**	**100**	**4,038,000**	**100**	**419,000**	**100**	**77,000**	**100**	**3,613,000**	**100**

Note: Due to rounding of acreages displayed for ease of interpretation, some acreages when summed do not exactly equal the total acreage, and some percentages when summed do not total exactly 100.[a] There are no areas of critical environmental concern under Alternative D. [b] Percentages for each alternative are the percentages of the total area in ACECs occupied by each vegetation class/wetland type.

Table O-8 Vegetation Types on BLM-Managed Lands

Vegetation Class Wetland Type	**Acres**	**%**
Open Water Waters of the U.S.	60,000	<1
Emergent Herbaceous Wetlands Freshwater Emergent Wetlands	33,000	<1
Sedge/Herbaceous Freshwater Emergent Wetlands	110,000	1
Grassland/Herbaceous Freshwater Emergent Wetlands	396,000	3
Alpine-Arctic Tussock Tundra Freshwater Emergent Wetlands	609,000	5
Lowland Woody Wetland Freshwater Shrub Wetlands	468,000	4
Riparian Forest and Shrub Freshwater Shrub Wetlands	471,000	4
Alpine Dwarf Shrub Tundra Uplands	1,524,000	11
Upland Low and Tall Shrub Uplands	5,101,000	38
Upland Mesic Spruce Forest Uplands	3,081,000	23
Upland Mesic Spruce-Hardwood Forest Uplands	1,122,000	8
Barren Land Uplands	277,000	2
Developed Uplands	7,000	<1
Perennial Ice/Snow Uplands	4,000	<1
Totals	**13,264,000**	**100**

Appendix P
Wildlife

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ACRONYMS AND ABBREVIATIONS

	Full Phrase
ACEC	areas of critical environmental concern
ERMA	extensive recreation management area
NSO	no surface occupancy
ROW	right-of-way
SRMA	special recreation management area

Appendix P. Wildlife

The tables presented below summarize land allocations under different alternatives for beaver habitat, caribou herd ranges, and Dall sheep habitat. Instead of acreage, for ease of comparison between the alternatives these allocations are given in percentages of the total habitat

Table P-1
Percentages of Beaver Habitat by Management Action under the Alternatives*

Management Action	A	B	C1	C2	D	E
Areas of critical environmental concern (ACECs)	96.4	96.9	70.8	0.0	0.0	97.1
ACEC/research natural area	3.4	2.8	0.0	0.0	0.0	3.0
Research natural area	0.3	0.3	29.2	100.0	0.0	0.0
Corridor—Open[1]	0.0	0.7	0.7	6.8	6.8	0.7
Closed to fluid minerals leasing	0.2	14.9	1.3	0.0	0.0	0.4
Withdrawn from fluid minerals leasing	94.1	41.4	39.2	0.0	0.0	94.0
Open to fluid minerals leasing	3.5	10.4	15.1	31.8	31.8	5.5
Open, subject to no surface occupancy (NSO) stipulation	0.0	14.3	6.6	0.0	0.0	0.1
Open, subject to controlled surface use stipulation	0.0	0.0	12.2	0.0	0.0	0.0
Open, State or Native selection, segregated	2.1	18.9	25.6	68.2	68.2	0.0
Closed for mineral materials sales	0.0	43.3	8.4	5.7	0.0	9.1
Open for mineral materials sales	100.0	56.7	91.6	94.3	100.0	90.9
Currently withdrawn from locatable mineral entry	32.8	9.6	9.6	0.0	0.0	32.8
Currently withdrawn but open to metalliferous	33.1	0.0	0.0	0.0	0.0	33.1
Recommended for withdrawal from locatable mineral entry	0.3	8.7	0.1	0.0	0.0	0.0
Open to locatable mineral entry	14.3	17.3	25.9	31.8	31.8	14.6
Open, State or Native selection, segregated	19.5	64.5	64.5	68.2	68.2	19.5
Right-of-way (ROW) avoidance area	0.0	40.4	22.4	6.3	0.0	17.2
ROW exclusion area	0.0	19.6	0.0	0.0	0.0	0.2
Open to ROW	100.0	39.3	76.8	86.9	93.2	81.9
Extensive recreation management area (ERMA)	1.1	100.0	0.2	68.8	0.0	0.0
Special recreation management area (SRMA)	98.9	0.0	99.8	31.5	0.0	100.0

Source: Reimer et al. 2016 (Note: Does not cover the entire planning area)
*Percentages are calculated based on beaver habitat in comparison to decision area of project
[1]Open to development of Umiat, Ambler, or Inner Dalton Corridors

Table P-2
Percentages of Caribou Herd Ranges by Management Action under the Alternatives*

Area	Management Action	A	B	C1	C2	D	E
Galena Mountain Herd (GMH)	ACEC	3.4	35.6	0.0	0.0	0.0	0.0
GMH	Closed to fluid minerals leasing	0.0	2.0	0.0	0.0	0.0	0.0
GMH	Withdrawn from fluid minerals leasing	100.0	39.7	41.4	0.0	0.0	100.0
GMH	Open to fluid minerals leasing	0.0	17.1	18.3	36.8	36.8	0.0
GMH	Open, State or Native selection, segregated	0.0	28.6	31.4	63.2	63.2	0.0
GMH	Open, subject to controlled surface use stipulation	0.0	0.0	8.9	0.0	0.0	0.0
GMH	Open, subject to NSO stipulation	0.0	12.6	0.0	0.0	0.0	0.0
GMH	Closed for mineral materials sales	0.0	37.9	100.0	100.0	0.0	100.0
GMH	Open for mineral materials sales	100.0	62.1	0.0	0.0	100.0	0.0
GMH	Currently withdrawn from locatable mineral entry	9.2	0.0	0.0	0.0	0.0	9.2
GMH	Currently withdrawn, but open to metalliferous	46.0	0.0	0.0	0.0	0.0	46.0
GMH	Recommended for withdrawal from locatable mineral entry	0.0	0.0	0.0	0.0	0.0	0.0
GMH	Open to locatable mineral entry	0.0	27.3	27.3	36.8	36.8	0.0
GMH	Open, State or Native selection, segregated	44.3	72.7	72.7	63.2	63.2	44.3
GMH	ROW avoidance area	0.0	16.1	100.0	100.0	0.0	100.0
GMH	ROW exclusion area	0.0	37.9	0.0	0.0	0.0	0.0
GMH	Open to ROW	100.0	46.0	0.0	0.0	100.0	0.0
Ray Mountain Herd (RMH)	ACEC	54.7	70.5	0.0	0.0	0.0	33.7
RMH	Research natural area	1.9	1.7	0.0	0.0	0.0	0.0
RMH	ERMA	0.0	100.0	100.0	0.0	0.0	0.0
RMH	Closed to fluid minerals leasing	0.0	8.8	20.1	0.0	0.0	0.0
RMH	Withdrawn from fluid minerals leasing	100.0	69.0	79.9	0.0	0.0	100.0
RMH	Open to fluid minerals leasing	0.0	0.6	0.0	8.7	8.7	0.0
RMH	Open, subject to NSO stipulation	0.0	13.6	0.0	0.0	0.0	0.0
RMH	Open, State or Native selection, segregated	0.0	7.9	0.0	90.4	90.4	0.0
RMH	Closed for mineral materials sales	0.0	73.4	100.0	100.0	0.0	2.6
RMH	Open for mineral materials sales	100.0	26.6	0.0	0.0	100.0	97.4
RMH	Currently withdrawn from locatable mineral entry	19.9	0.0	0.0	0.0	0.0	19.9

Area	Management Action	A	B	C1	C2	D	E
RMH	Currently withdrawn, but open to metalliferous	25.3	0.0	0.0	0.0	0.0	25.3
RMH	Recommended for withdrawal from locatable mineral entry	0.0	1.4	2.3	0.0	0.0	0.0
RMH	Open to locatable mineral entry	0.0	1.2	0.0	8.7	8.7	0.0
RMH	Open, State or Native selection, segregated	54.5	97.4	97.4	90.4	90.4	54.5
RMH	ROW avoidance area	0.0	83.7	99.8	100.0	0.0	99.8
RMH	ROW exclusion area	0.0	5.1	0.2	0.0	0.0	0.2
RMH	Open to ROW	100.0	11.2	0.0	0.0	100.0	0.0
Hodzana Hills Herd (HHH)	ACEC	16.1	30.2	0.8	0.0	0.0	16.7
HHH	SRMA	100.0	100.0	100.0	13.7	0.0	100.0
HHH	ERMA	0.0	0.0	0.0	86.3	0.0	0.0
HHH	Closed to fluid minerals leasing	0.0	23.4	0.0	0.0	0.0	0.0
HHH	Withdrawn from fluid minerals leasing	100.0	5.7	4.4	0.0	0.0	100.0
HHH	Open to fluid minerals leasing	0.0	5.7	14.6	23.9	23.9	0.0
HHH	Open, subject to controlled surface use stipulation	0.0	0.0	9.9	0.0	0.0	0.0
HHH	Open, subject to NSO stipulation	0.0	21.1	28.9	0.0	0.0	0.0
HHH	Open, State or Native selection, segregated	0.0	44.1	42.0	76.1	76.1	0.0
HHH	Closed for mineral materials sales	0.0	53.0	0.9	0.0	0.0	0.9
HHH	Open for mineral materials sales	100.0	47.0	99.1	100.0	100.0	99.1
HHH	Currently withdrawn from locatable mineral entry	56.5	7.2	7.2	0.0	0.0	56.5
HHH	Recommended for withdrawal from locatable mineral entry	2.3	16.7	0	0.0	0	0.0
HHH	Open to locatable mineral entry	41.2	7.2	23.9	23.9	23.9	43.5
HHH	Open, State or Native selection, segregated	0.0	68.6	68.6	76.1	76.1	0.0
HHH	Corridor—Open[1]	0.0	0.0	0.0	6.7	6.7	0.0
HHH	ROW avoidance area	0.0	92.8	48.1	0.0	0.0	0.9
HHH	ROW exclusion area	0.0	0.9	0.0	0.0	0.0	0.0
HHH	Open to ROW	100.0	6.3	51.6	93.3	93.3	99.1

*Percentages are calculated based on category area in comparison to the specific herds' entire range area (GMH/RMH/HHH)

[1]Open to development of Umiat, Ambler, or Inner Dalton Corridors

Table P-3
Percentages of Dall Sheep Critical Areas by Management Action under the Alternatives*

Area	Management Action	A	B	C1	C2	D	E
Dall Sheep Habitat Area (DSHA)	ACEC	40.0	80.0	40.0	0.0	0.0	60.0
(DSHA)	ERMA	0.0	0.0	0.0	60.0	0.0	0.0
(DSHA)	SRMA	100.0	40.0	100.0	40.0	0.0	80.0
(DSHA)	Closed to fluid minerals leasing	0.0	40.0	0.0	0.0	0.0	0.0
(DSHA)	Closed to fluid minerals leasing by withdrawal	100.0	40.0	40.0	0.0	0.0	100.0
(DSHA)	Open to fluid minerals leasing	0.0	0.0	0.0	0.0	0.0	0.0
(DSHA)	*Open, State or Native selection, segregated	0.0	20.0	60.0	100.0	100.0	0.0
(DSHA)	Open, subject to controlled surface use stipulation	0.0	0.0	20.0	0.0	0.0	0.0
(DSHA)	Open, subject to NSO stipulation	0.0	0.0	60	0.0	0.0	0.0
(DSHA)	Closed to mineral materials sales	0.0	80.0	100.0	0.0	0.0	100.0
(DSHA)	Open for mineral materials sales	100.0	20.0	0.0	100.0	100.0	0.0
(DSHA)	Withdrawn from locatable mineral entry	60.0	40.0	40.0	0.0	0.0	60.0
(DSHA)	Recommended for withdrawal from locatable mineral entry	0.0	0.0	0.0	0.0	0.0	0.0
(DSHA)	Open to locatable mineral entry	40.0	0.0	0.0	0.0	0.0	40.0
(DSHA)	*Open, State or Native selection, segregated	0.0	60.0	60.0	100.0	100.0	0.0
(DSHA)	Corridor—Open[1]	0.0	0.0	0.0	40	40	0.0
(DSHA)	ROW avoidance area	0.0	80.0	0.0	0.0	0.0	100.0
(DSHA)	ROW exclusion area	0.0	0.0	100.0	0.0	0.0	0.0
(DSHA)	Open to ROW	100.0	0.0	0.0	100.0	100.0	0.0
Dall Sheep Movement Corridor (DSMC)	ACEC	20.2	61.3	43.6	0.0	0.0	44.1
DSMC	ERMA	0.0	0.0	0.0	81.0	0.0	0.0
DSMC	SRMA	100.0	19.0	99.3	19.0	0.0	85.8
DSMC	Closed to fluid minerals leasing	0.0	45.7	0.0	0.0	0.0	0.0
DSMC	Closed to fluid minerals leasing by withdrawal	100.0	16.5	9.3	0.0	0.0	100.0
DSMC	Open to fluid minerals leasing	0.0	0.0	0.0	0.0	0.0	0.0
DSMC	*Open, State or Native selection, segregated	0.0	24.5	39.4	100.0	100.0	0.0

Area	Management Action	A	B	C1	C2	D	E
DSMC	Open, subject to controlled surface use stipulation	0.0	0.0	11.6	0.0	0.0	0.0
DSMC	Open, subject to NSO stipulation	0.0	13.3	39.7	0.0	0.0	0.0
DSMC	Closed to mineral materials sales	1.2	73.0	100.0	0.0	0.0	44.2
DSMC	Open for mineral materials sales	98.8	27.0	0.0	100.0	100.0	55.8
DSMC	Withdrawn from locatable mineral entry	19.0	19.0	19.0	0.0	0.0	19.0
DSMC	Recommended for withdrawal from locatable mineral entry	0.0	0.0	0.0	0.0	0.0	0.0
DSMC	Open to locatable mineral entry	81.0	0.0	0.0	0.0	0.0	81.0
DSMC	*Open, State or Native selection, segregated	0.6	81.6	81.6	100.0	100.0	0.6
DSMC	Corridor—Open[1]	0.0	0.0	0.0	16.0	16.0	0.0
DSMC	ROW avoidance area	0.0	91.4	98.2	0.0	0.0	4.9
DSMC	ROW exclusion area	0.0	3.7	1.8	0.0	0.0	0.0
DSMC	Open to ROW	100.0	4.9	0.0	84.0	84.0	95.1
Dall Sheep Study Area (DSSA)	ACEC	8.4	19.4	10.5	0.0	0.0	14.6
DSSA	ERMA	0.0	0.0	0.0	68.2	0.0	0.0
DSSA	SRMA	98.3	11.3	79.2	11.3	0.0	66.6
DSSA	Closed to fluid minerals leasing	0.0	9.2	0.0	0.0	0.0	0.0
DSSA	Closed to fluid minerals leasing by withdrawal	98.9	36.4	35.0	0.0	0.0	98.9
DSSA	Open to fluid minerals leasing	1.3	10.9	10.5	12.8	12.8	1.3
DSSA	*Open, State or Native selection, segregated	0.0	33.5	41.3	87.5	87.5	0.0
DSSA	Open, subject to controlled surface use stipulation	0.0	0.0	5.1	0.0	0.0	0.0
DSSA	Open, subject to NSO stipulation	0.0	10.0	8.4	0.0	0.0	0.0
DSSA	Closed to mineral materials sales	0.3	30.2	5.1	0.0	0.0	9.4
DSSA	Open for mineral materials sales	99.7	69.8	94.9	100.0	100.0	90.6
DSSA	Withdrawn from locatable mineral entry	41.5	35.5	35.5	0.0	0.0	41.5
DSSA	Withdrawn but open to metalliferous	12.4	0.0	0.0	0.0	0.0	12.4
DSSA	Open to locatable mineral entry	39.9	12.2	12.2	12.8	12.8	39.9
DSSA	*Open, State or Native selection, segregated	6.2	52.6	52.6	87.5	87.5	6.2
DSSA	Corridor—Open[1]	0.0	0.0	0.0	26.1	26.1	0.0
DSSA	ROW avoidance area	0.0	86.5	67.9	0.0	0.0	1.6
DSSA	ROW exclusion area	0.0	1.1	0.5	0.0	0.0	0.0
DSSA	Open to ROW	100.0	12.4	31.5	73.9	73.9	98.4

Area	Management Action	A	B	C1	C2	D	E
All Sheep Habitat	ACEC	12.2	32.8	20.8	0.0	0.0	24.1
All Sheep Habitat	Closed to fluid minerals leasing	0.0	21.0	0.0	0.0	0.0	0.0
All Sheep Habitat	Withdrawn from fluid minerals leasing	99.1	30.2	23.7	0.0	0.0	99.1
All Sheep Habitat	Open to fluid minerals leasing	0.9	7.4	5.8	8.7	8.7	0.9
All Sheep Habitat	*Open, State or Native selection, segregated	0.0	30.5	40.3	91.3	91.3	0.0
All Sheep Habitat	Open, subject to controlled surface use stipulation	0.0	0.0	7.9	0.0	0.0	0.0
All Sheep Habitat	Open, subject to NSO stipulation	0.0	10.9	22.3	0.0	0.0	0.0
All Sheep Habitat	Closed to mineral materials sales	0.6	43.6	34.9	0.0	0.0	20.8
All Sheep Habitat	Open for mineral materials sales	99.4	56.4	65.3	100.0	100.0	79.4
All Sheep Habitat	Withdrawn from locatable mineral entry	34.7	30.5	30.5	0.0	0.0	34.7
All Sheep Habitat	Withdrawn but open to metalliferous	8.5	0.0	0.0	0.0	0.0	8.5
All Sheep Habitat	Recommended for withdrawal from locatable mineral entry	0.0	0.0	0.0	0.0	0.0	0.0
All Sheep Habitat	Open to locatable mineral entry	52.3	8.4	8.4	8.7	8.7	52.3
All Sheep Habitat	*Open, State or Native selection, segregated	4.5	61.3	61.3	91.3	91.3	4.5

*Percentages are calculated based on category area in comparison to the specific habitat area (DSHA/DSMC/DSSA)

[1]Open to development of Umiat, Ambler, or Inner Dalton Corridors

This category denotes land that, while designated as open to a use, remains segregated until such time as the land is transferred or the selection relinquished.

P.1 REFERENCES

Reimer, J.P., T. Nawrocki, M. Aisu, and T. Gotthardt. 2016. "Terrestrial fine-filter conservation elements." In: Central Yukon Rapid Ecoregional Assessment (E. J. Trammell, T. Boucher, M. L. Carlson, N. Fresco, J. R. Fulkerson, M. L. McTeague, J. Reimer, and J. Schmidt, editors). 2016. Prepared for the Bureau of Land Management, U.S. Department of the Interior, Anchorage, Alaska.

P.2 GLOSSARY

areas of critical environmental concern (ACEC). Special area designation established through the BLM's land use planning process (43 CFR 1610.7-2) where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources; or other natural systems or processes, or to protect life and safety from natural hazards. The collaborative planning process establishes the level of allowable use within an ACEC. Designation of an ACEC allows for resource use limitations to protect identified resources or values.

controlled surface use. Areas open to fluid mineral leasing that allow surface-disturbing activities, subject to special operational constraints to protect the specified resource or value.

Dall sheep habitat area. BLM-managed lands identified as having the highest habitat conservation value in relation to Dall sheep.

Dall sheep movement corridor. BLM-managed lands identified as having significant value to Dall sheep for accessing seasonal ranges, mineral sources, forage habitat, and escape terrain.

Dall sheep study area. The remainder of the planning area that is known to be inhabited by Dall sheep but is not identified as a Dall sheep habitat area or Dall sheep movement corridor.

extensive recreation management area (ERMA). A public lands unit identified in land use plans containing all acreage not identified as an SRMA. Recreation management actions within an ERMA are limited to only those of a custodial nature.

no surface occupancy (NSO). A fluid mineral leasing constraint that prohibits occupancy or disturbance on all or part of the lease surface to protect special values or uses. Lessees may exploit the fluid mineral resources under the leases restricted by this constraint through use of directional drilling from sites outside the NSO area.

research natural area. A land management status that reserves the area for uses that are compatible with the resource of interest and research for which the area was designated.

right-of-way (ROW). A ROW grant is an authorization to use a specific piece of public land for a specific project, such as electric transmission lines, communication sites, roads, trails, fiber-optic lines, canals, flumes, pipelines, and reservoirs. The BLM's policy is to authorize all ROW applications, at the Authorized Officer's discretion, as efficiently and economically as possible. Generally, a ROW is granted for a term appropriate for the life of the project.

special recreation management area (SRMA). A public lands unit identified in land use plans to direct recreation funding and personnel to fulfill commitments made to provide specific, structured recreation opportunities. Both land use plan decisions and subsequent implementing actions for recreation in each SRMA are geared to a strategically identified primary market—destination, community, or undeveloped.

Appendix Q
Subsistence Uses and Resources

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ACRONYMS AND ABBREVIATIONS

	Full Phrase
ACEC	areas of critical environmental concern
ADFG	Alaska Department of Fish and Game
AMS	analysis of the management situation
ANCSA	Alaska Native Claims Settlement Act
ANILCA	Alaska National Interest Lands Conservation Act
ATV	all-terrain vehicle
AWC	Anadromous Waters Catalog
BCA	backcountry conservation area
BLM	Bureau of Land Management
BMP	best management practice
CFR	Code of Federal Regulations
CSIS	Community Subsistence Information System
DCCED	Alaska Department of Commerce, Community, and Economic Development
DHCMA	Dalton Highway Corridor Management Area
DSHA	Dall sheep habitat areas
DSMC	Dall sheep movement corridors
DSSA	Dall sheep study area
EFH	essential fish habitat
ERMA	extensive recreation management area
GMH	Galena Mountain Caribou Herd
GMU	Game Management Unit
HHH	Hodzana Hills Caribou Herd
NNIS	nonnative invasive species
NSO	no surface occupancy
OHV	off-highway vehicle
ORV	outstandingly remarkable value
PLO	public land order
RMH	Ray Mountain Caribou Herd
RMZ	recreation management zone
RNA	research natural area
ROW	right-of-way

SOP	standard operating procedure
SRMA	special recreation management area
SRP	special recreation permit
TMA	travel management area
WSA	Wild and Scenic River

Appendix Q. Subsistence Uses and Resources

Q.1 SUMMARY

This section describes potential effects of the proposed management actions on subsistence uses in the planning area. As described in the analysis of the management situation (AMS), the planning area contains rural communities with mixed subsistence-cash economies whose residents live a subsistence-based lifestyle. This type of lifestyle is characterized by sharing, bartering, and cash exchanges associated with the customary traditional harvest of natural resources, combined with a wage labor economic system (Wolfe and Walker 1987).

Within the borders of the planning area, the Fairbanks North Star Borough was determined to be a predominantly nonrural area and residents do not qualify as subsistence users. Residents of all other areas and communities are designated as federally qualified subsistence users. Twenty-four recognized villages in or next to the planning area qualify as rural and are included in the impact analysis. These communities have subsistence use areas that overlap the planning area or rely on resources that pass through or depend on habitat in the planning area. The 24 communities are grouped into three regions, as follows:

1. **North Slope**—Anaktuvuk Pass and Nuiqsut
2. **Yukon River**—Alatna, Allakaket, Bettles, Coldfoot, Evansville, Stevens Village, Rampart, and Wiseman
3. **Upper Interior**—Arctic Village, Galena, Hughes, Huslia, Kaltag, Koyukuk, Lake Minchumina, Manley Hot Springs, Minto, Nenana, Nuiqsut, Nulato, Ruby, Tanana, and Venetie

A wide variety of fish, wildlife, and vegetation are harvested by subsistence users for myriad purposes, including food, fuel, arts and crafts, tools, clothing, and traditional cultural practices. Additional information is available in AMS Section 2.4.2, Subsistence, at https://eplanning.blm.gov/epl-front-office/projects/lup/35315/72940/80089/CYRMP_AMS_all_April_2016_Final.pdf. Note that layered protections for subsistence practices currently exist (see Appendix N in Title VIII of the Alaska National Interest Lands Conservation Act [ANILCA]). Federal and state regulations and are described further in **Chapter 1**.

Overall, Alternatives B, E, and C1 are likely to provide more protections than Alternative A, and Alternatives C2 and D will provide fewer protections. Alternative D would provide the fewest protections for fish and wildlife species. Alternative B is likely to have the most protections, followed by Alternative E, in large part due to the increased acreage of ACEC designations compared to Alternative A that would benefit subsistence resources. However, because Alternative C1 has specific protections for important Dall sheep habitat, it may provide a greater level of protection for this species. Alternative D would not designate acreage as Areas of Critical Environmental Concern (ACECs) or Research Natural Areas (RNAs), so it provides the fewest protections for subsistence fish and wildlife species and their habitat.

Public Land Order (PLO) 5150 would be recommended for partial revocation under Alternatives B and C1. Under Alternatives C2 and D, the recommended full revocation of PLO 5150 would allow State of Alaska top-filed lands to become effective selections. Priority 1 and 2 selections are likely to be conveyed during the

life of the plan, which would provide the greatest potential for impacts on subsistence access and practices for communities in the area under these two alternatives. The full or partial revocation of PLO 5150 would have the practical effect of removing the federal subsistence priority for residents of Coldfoot and Wiseman. This is because provisions that currently allow federally qualified subsistence users to use firearms to harvest wildlife and to use snowmachines to access subsistence hunting and trapping areas would be removed, if the area were to revert to management by the State of Alaska. Under Alternatives A and E, no recommendation would be made to revoke PLO 5150 withdrawal and these impacts would not occur.

All action alternatives also propose revoking the Alaska Native Claims and Settlement Act (ANCSA) 17(d)(1) withdrawals in full, except for Alternative E which recommends a partial revocation. These withdrawals have been historically modified in many cases to allow for mineral entry (especially metalliferous minerals) or selection, so the impacts of these revocations are limited to areas where mineral entry was not open, and potential is high, and access is feasible. Under Alternative B, many of these areas are proposed to be closed to mineral entry, leasing, and other surface-disturbing activities. Under Alternative C1 and Alternative C2, the Ray Mountains core caribou habitat area is one such location. In this area some impacts on caribou habitat is identified and management actions are proposed and analyzed in the wildlife section of this RMP/EIS. Alternative E would partially revoke the ANCSA 17(d)(1) withdrawals only to allow for allotment selection by Alaska Native Vietnam-era veterans.

Alternative E would have the fewest acres managed as open to fluid mineral leasing (followed closely by Alternative A), and Alternative A would have the fewest acres managed as open to locatable mineral entry (followed closely by Alternative E). Alternative B would result in the most acres of right-of-way (ROW) avoidance and exclusion areas, followed by Alternatives C1 and E. Conversely, Alternatives C2 and D would manage the most areas as open to fluid mineral leasing and open to locatable mineral development, which would result in the most demand for new ROWs. As a result, Alternative E, followed by Alternatives B, A, and then C1 would provide the most protections to subsistence uses and resources from new surface-disturbing activities while Alternatives C2 and D would provide the least.

Management actions that would benefit subsistence would further the purposes of Title VIII of the ANILCA and align with the U.S. Department of the Interior's strategy of providing stewardship of land, surface water, streams, and shorelines and its goal of supporting tribal self-determination, self-governance, and sovereignty.

Q.2 Resources Harvested and Subsistence Harvest Levels

Several important subsistence resources are found in the planning area, most notably caribou, moose, Dall sheep, Chinook, and chum salmon, and sheefish. Many other resources, such as wood, berries, bears, and furbearers, are also important. Current subsistence harvest levels of wildlife, fish, and other resources in the planning area are sustainable. Although it is difficult to measure, based on discussions at Western Interior Alaska Subsistence Regional Advisory Council and other meetings, subsistence needs by rural residents in the planning area are not being met, particularly for salmon, moose, and Dall sheep. The Dalton Highway Corridor Management Area (DHCMA) is accessible by non-subsistence bow hunters from the Dalton Highway.

Harvest pressure on the most accessible areas can be very high from subsistence users and other hunters. The Bureau of Land Management (BLM) would continue to work with the Alaska Department of Fish and Game (ADFG) to monitor caribou and moose populations in the planning area. It would make recommendations to the Federal Subsistence Board, which would determine whether to take management action, based on results of caribou and moose population assessments. Data presented in **Table Q-1**, below, show harvest information by community in the planning area.

Q.3 SUBSISTENCE RESOURCE AVAILABILITY

Subsistence users harvest a variety of terrestrial, avian, marine, and freshwater game resources, as well as other non-game resources, such as plants, berries, and wood, in and near the planning area. Successful subsistence harvests depend on the continued availability of healthy populations of wild resources in traditional use areas. Resource availability and condition are affected by weather, wildlife population trends, natural variation, human disturbance, changes to habitat, federal, state, and tribal management practices, and contamination, such as that from invasive species, dust, and parasites.

BLM-managed lands are in large tracts in Game Management Units (GMUs) 24, 21, and 20 (**Map Q-1**). GMUs each have a specific set of regulations governing the harvest limit and timing of hunts for the wildlife species in that unit. There are subunits that may have additional regulations. Alaska does not regulate the harvest of nongame resources.

Q.4 SUBSISTENCE USE PATTERNS

The communities discussed below use large portions of the planning area and beyond to harvest resources for subsistence uses, often with overlapping use areas between communities. **Map Q-1** shows identified subsistence use areas. It is important to note that these areas represent snapshots and are likely to have been historically much larger or were in different areas. There could be areas not included in the community subsistence use areas that are still culturally important to various communities.

Hunting and gathering of subsistence resources, including fish, terrestrial wildlife, marine mammals, birds, and vegetation, follows a seasonal round. It varies from year to year by community, based on traditional knowledge, river and weather conditions, and migratory patterns. Searching for and harvesting subsistence resources typically follows a general pattern during specific seasons. State and federal hunting regulations have contributed to changes in seasonal rounds by creating open and closed seasons for harvesting resources.

The Yukon River region communities listed above tend to report higher levels of fish and moose as comprising a larger part of the overall subsistence harvest than communities in the Upper Interior region. Over the last decade, the weak salmon runs in the Yukon River have led communities to increase the harvest of other fish species (Harkness et al. 2012). In the Upper Interior region communities, a large percentage of the wild food harvest is from large land mammals instead of fish.

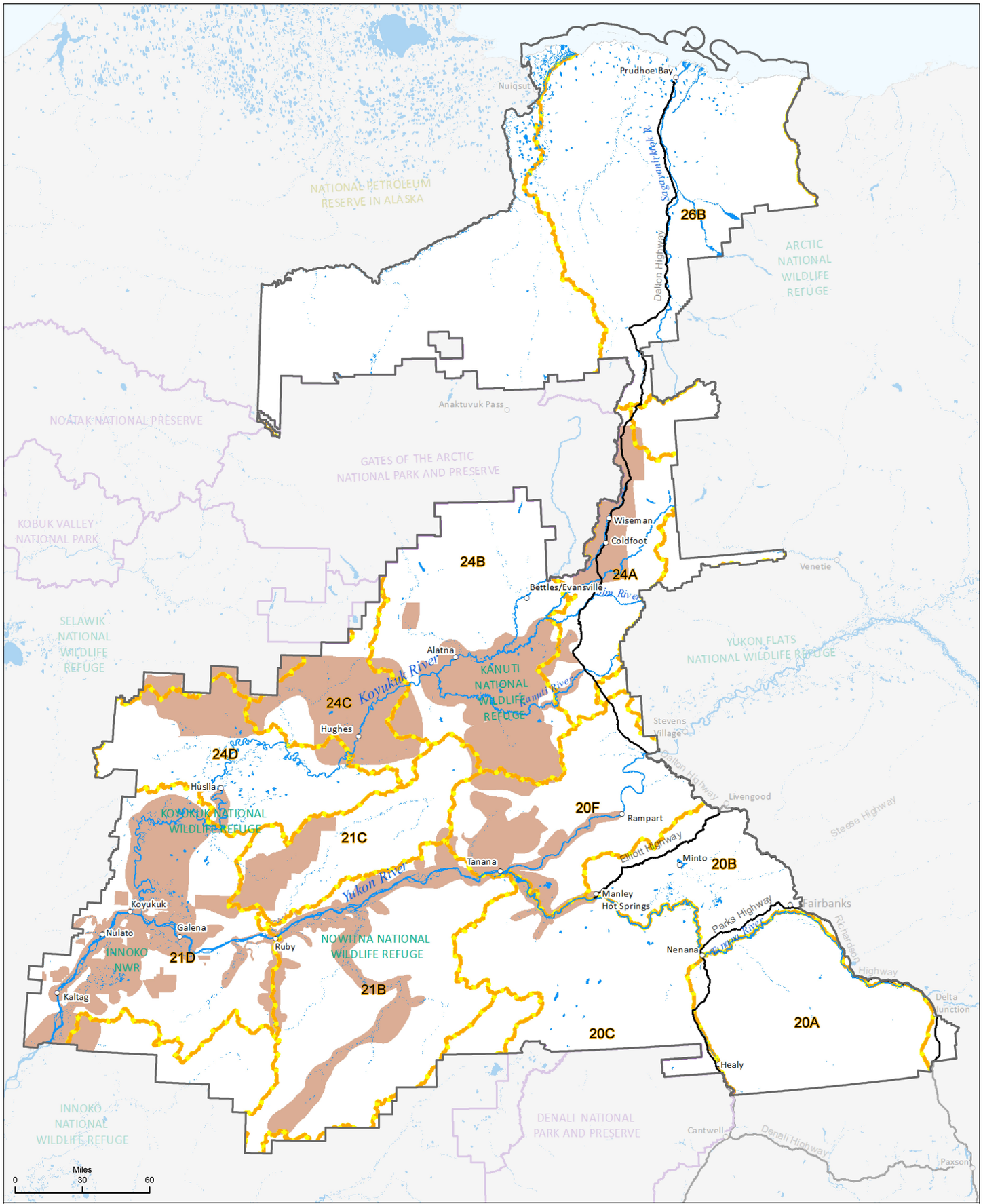
Sharing subsistence foods among individuals and households is an important part of the subsistence culture of communities in the planning area. In some communities, there are residents who hunt for multiple people besides themselves. Sharing between villages is also common (Holen et al. 2012; Bacon et al. 2011).

Table Q-1
Central Yukon Subsistence Communities, Estimated Pounds of Resources Harvested by Household

Community	Reference Year	Estimated Total Pounds Harvested	Salmon	Non-Salmon Fish	Large Land Mammals	Small Land Mammals	Marine Mammals	Marine Invertebrates	Birds and Eggs	Vegetation
Alatna	2011	9,428	861	676	6,885	320	—	—	571	116
Allakaket	2011	76,994	22,254	25,604	24,989	1,371	—	—	1,904	872
Anaktuvuk Pass	2014	124,269	226	10,222	111, 302	35	0	0	807	1,677
Arctic Village*	2002	18,416	—	18,416	—	—	—	—	—	—
Bettles	2011	2,104	51	93	1,860	—	—	—	29	71
Coldfoot	2011	381	—	—	325	—	—	—	—	56
Evansville	2011	1,056	147	110	540	—	—	—	31	228
Galena	2010	107,644	50,416	13,234	38,314	2,514	0	69	1,381	1,715
Hughes	2014	32,448	14,178	5,400	11,351	804	0	0	501	214
Huslia	1983	208,165	106,674	17,454	72,838	3,604	—	—	6,359	1,235
Kaltag*	1985, 2002, 2006	—	173,670 (1985)	4,779 (2006)	19,986 (2002)	—	—	—	—	—
Koyukuk*	2002	7,395	—	7,395	—	—	—	—	—	—
Lake Minchumina	2002	7,907	35	4,564	2,693	367	0	0	46	202
Manley Hot Springs	2012	52,438	43,021	3,894	2,628	116	0	0	280	2,498
Minto	2012	39,772	17,075	3,651	15,255	371	—	<1	1,787	1,633
Nenana	2015	64,965	26,722	7,796	21,656	1,327	0	36	3,951	3,477
Nuiqsut	2014	371,992	3,889	85,106	108,359	0	169,367	0	4,857	414
Nulato	2010	62,140	28,211	6,696	22,264	2,423	0	0	634	1,913
Rampart	2014	14,754	8,992	1,221	4,011	169	0	0	336	26
Ruby	2010	54,107	32,075	4,305	15,194	966	0	22	505	1,040
Stevens Village	2014	3,748	3,073	460	0	133	0	0	45	38
Tanana	2014	197,715	141,140	34,312	19,121	296	0	2	1,546	1,298
Venetie[1]	2009	74,602	20,775	6,745	36,977	3,126	—	—	5,619	1,360
Wiseman	2011	3,819	151	172	2,888	18	—	—	312	278

Source: ADFG 2020

[1]Source: Kofinas et al. 2016
— Denotes that no data was provided for the category.
*Community has not had a comprehensive subsistence survey completed.



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.

Data Source: BLM GIS 2017, ADF&G GIS 2018

Map Q.1

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Q.5 SUBSISTENCE USE

The following sections discuss subsistence use areas for communities in and next to the planning area. There is limited data available for places or areas significant to and for subsistence use in the planning area. Studies investigating patterns of use, such as seasonal cycles, use areas, and resources harvested, have been conducted by ADFG Division of Subsistence and other agencies and organizations. Available data are primarily included in technical reports by the ADFG's Division of Subsistence and the Community Subsistence Information System (CSIS) (ADFG 2020); however, they are limited in scope and may reflect only area use during a specific time or may represent historical use areas. Not all surveys for planning area communities were comprehensive; however, all planning area communities do have some sort of subsistence harvest data available.

The discussions in the following sections are supplemented by information available from more recent ADFG technical papers and publicly available information. Additionally, the BLM has included specific concerns identified through conversations with local stakeholders for some communities. Note that the lack of data for a community is not an indication that subsistence uses, and resources lack importance in the area.

Alatna

Alatna is on the north bank of the upper Koyukuk River, southwest of its junction with the Alatna River, approximately 190 air miles northwest of Fairbanks. Alatna lies just west of the municipal boundaries of the City of Allakaket. The two communities share an airport and school, which are in Allakaket, resulting in daily interactions between residents of the two communities. According to the 2010 Census, Alatna had 37 residents; however, a household survey conducted by ADF&G in 2011 found an estimated population of 32 residents (Holen et al. 2012). The 2018 Alaska Department of Commerce, Community, and Economic Development (DCCED) certified population was 25 (DCCED 2020).

Subsistence Harvest Patterns

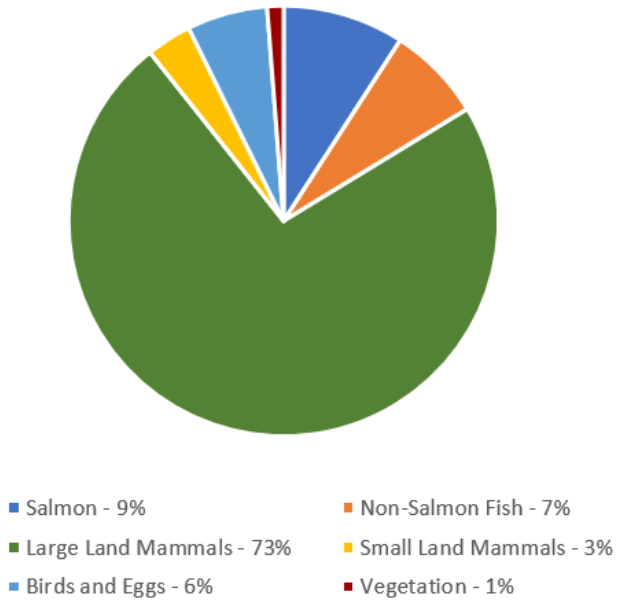
The total estimated harvest for all subsistence resources during 2011 for Alatna was 9,428 pounds, or 299 pounds per capita. In terms of estimated pounds harvested, large land mammals made up the largest portion of the subsistence harvest at 73 percent (**Figure Q-1**), which totaled 6,885 pounds, or 219 pounds per capita. Caribou (117 pounds per capita), moose (77 pounds), black bears (23 pounds), and chum salmon (23 pounds) represented the highest harvest amounts in pounds per capita in Alatna, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

There was an estimated average of 1,047 pounds of wild resources harvested per household (ADFG 2020). Alatna households harvested 16 kinds of resources and used an average of 24 kinds of resources. The maximum number of resources used by any household was 38 (Holen et al. 2012). Large land mammals, birds and eggs, and vegetation were used by 100 percent of the households, even though birds and eggs contributed only 6 percent of the harvest by weight, and vegetation contributed 1 percent of the harvest by weight. Whale was received by 100 percent of households from friends and family in Alaska coastal villages (Holen et al. 2012).

In 2011, 33 percent of households reported harvesting salmon, while 50 percent of households reported using salmon. The salmon harvest totaled 27 pounds per capita. The most harvested salmon species per capita were chum salmon (24 pounds) and sockeye salmon (3 pounds). Additionally, 50 percent of households reported harvesting non-salmon fish, compared with 83 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 21 pounds per capita. The most harvested non-salmon fish per capita were whitefish (12 pounds), sheefish (6 pounds), and pike (2 pounds) (ADFG 2020).

The harvest of large land mammals totaled 219 pounds per capita. The most harvested large land mammal species per capita were caribou (117 pounds), moose (77 pounds), and black bear (23 pounds). More than half of Alatna's households (67 percent) participated in small land mammal harvesting in 2011. Most small land mammal hunting or trapping took place during the winter, and the harvest of small land mammals totaled 10 pounds per capita. The most harvested species in terms of pounds per capita were beaver (9 pounds), snowshoe hare (1 pound), and porcupines (0.4 pounds) (ADFG 2020).

Figure Q-1. Composition of Harvest by Category, Alatna



Source: ADFG 2020

There were 100 percent of Alatna households that reported using birds and eggs, and 83 percent harvested them. The bird and egg harvest totaled 18 pounds per capita. The most harvested bird species in pounds per capita were geese (11 pounds) and ducks (5 pounds) (ADFG 2020). No bird eggs were gathered during the survey year (Holen et al. 2012).

Although vegetation harvest contributes only 1 percent by weight of the total harvest for Alatna residents, 100 percent of households reported harvesting and using vegetation, particularly berries. Firewood is also considered a vegetation resource, which was harvested and used by 100 percent of households as well (ADFG 2020). The harvest of vegetation totaled 4 pounds per capita. The most harvested vegetation in pounds per capita was highbush cranberry (3 pounds) and blueberry (1 pound) (ADFG 2020).

Subsistence Use Areas

Alatna search and harvest areas for all resources are focused around the Alatna and Koyukuk Rivers. Residents typically use motorized vehicles, such as skiffs, snowmachines, and all-terrain vehicles (ATVs) to access their hunting, fishing, and gathering areas (Holen et al. 2012). Use areas for salmon and non-salmon fish are on the Koyukuk River and throughout the river drainage. Land surrounding the Alatna River north of the village and the Koyukuk River south of the village are commonly used for harvesting large land mammals; however, residents have also reported traveling more than 100 miles to harvest large land mammals, such as caribou. Large land mammal hunting is a traditional and popular fall activity that often stretches into winter (Holen et al. 2012)

The harvest and search areas for small land mammals in 2011 included the Buzodoc Slough area, the land just north of Alatna on the Alatna River, and the area immediately south and southeast of Allakaket. Residents harvested migratory waterfowl near Alatna and Allakaket and north of the two communities on the Alatna River, east on the Koyukuk River, and northeast toward Double Point Mountain. Upland game birds were harvested by Alatna residents along the Koyukuk River northwest of Alatna throughout the year. Each household has preferred harvest areas for vegetation.

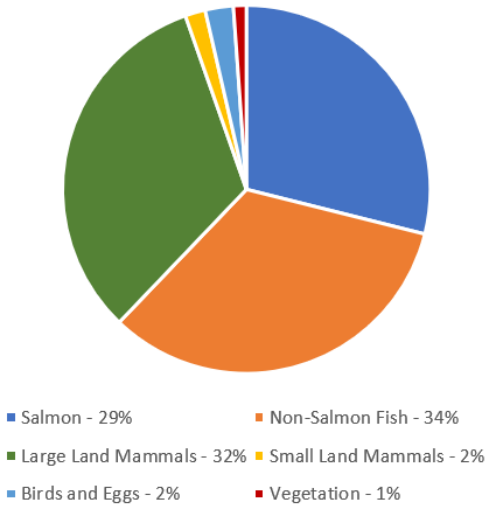
Allakaket

Allakaket is on the south bank of the upper Koyukuk River, less than 1 river mile below its junction with the Alatna River, near the community of Alatna. Allakaket is approximately 190 air miles northwest of Fairbanks. According to the 2010 Census, Allakaket (which consists of Allakaket City and New Allakaket) had 171 residents; however, a household survey conducted by ADFG in 2011 found an estimated population of 147 residents (Holen et al. 2012). The 2018 DCCED-certified population of Allakaket was 164 (DCCED 2020).

Subsistence Harvest Patterns

The subsistence harvest for Allakaket was reported at 76,994 pounds, or 525 pounds per capita of wild resources during 2011. In terms of estimated pounds harvested, non-salmon fish made up the largest portion of the subsistence harvest at 34 percent (**Figure Q-2**), which totaled 18,866 pounds, or 175 pounds per capita (ADFG 2020).Chum salmon (124 pounds per capita), caribou (84 pounds), whitefish (75 pounds), sheefish (71 pounds) represented the highest harvest amounts in Allakaket, based on the estimated pounds per capita of usable weight harvested.

Figure Q-2. Composition of Harvest by Category, Allakaket



Source: ADFG 2020

There was an estimated average of 1,351 pounds of wild resources harvested per household (ADFG 2020). Allakaket households harvested 13 kinds of resources and used an average of 18 different kinds of resources. The maximum number of resources used by any household was 51 (Holen et al. 2012). Large land mammals (used by 90 percent of households), vegetation (88 percent), and non-salmon fish (81 percent) had the highest percentages of household use, even though vegetation contributed only 1 percent of the total harvest by weight. Marine mammals were not harvested by Allakaket households; however, 55 percent of households reported receiving and using marine mammal resources from friends and relatives in coastal areas.

In 2011, 36 percent of households reported harvesting salmon, while 66 percent of households reported using salmon. Salmon harvest totaled 152 pounds per capita. The most harvested salmon species per capita were chum salmon (124 pounds), Chinook salmon (11 pounds), and coho salmon (9 pounds). Additionally, 60 percent of households reported harvesting non-salmon fish, compared with 81 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 175 pounds per capita. The most harvested non-salmon fish per capita were whitefish (75 pounds), sheefish (71 pounds), and pike (24 pounds) (ADFG 2020).

The harvest of large land mammals totaled 170 pounds per capita. The most harvested large land mammal species per capita were caribou (84 pounds), moose (70 pounds), and black bear (12 pounds). In 2011, 43 percent of households participated in large land mammal harvesting, and 90 percent of households used large land mammals, primarily moose (88 percent) and caribou (76 percent). Dall sheep hunting is a longstanding activity by Allakaket hunters. In 2011, five percent of Allakaket households harvested Dall sheep, and 14 percent of households used Dall sheep, or 3 pounds per capita.

Only 33 percent of households participated in small land mammal harvesting in 2011. The harvest of small land mammals totaled 9 pounds per capita. Most small land mammal hunting or trapping took place during the winter, and the most harvested species in terms of pounds per capita were beaver (8 pounds), snowshoe hare (1 pound), and porcupine (1 pound) (ADFG 2020).

At the time, 74 percent of Allakaket's households that reported using birds and eggs, and 60 percent harvested them. The harvest of birds and eggs totaled 13 pounds per capita. The most harvested bird species in pounds per capita were geese (6 pounds) and ducks (4 pounds) (ADFG 2020). No bird eggs were gathered during the survey year (Holen et al. 2012).

Although vegetation harvest contributed only 1 percent by weight of the total harvest for Allakaket residents, 83 percent of households reported harvesting vegetation and 88 percent reported using vegetation. The harvest of vegetation totaled 6 pounds per capita. The most harvested vegetation in pounds per capita was blueberry (2 pounds) and highbush cranberry (2 pounds) (ADFG 2020).

Subsistence Use Areas

Allakaket search and harvest areas for all resources are typically within 20 miles of the community and along area river corridors, including the Alatna, Koyukuk, South Fork Koyukuk, and Kanuti Rivers. Transportation for subsistence harvest is generally done by outboard motor-powered skiffs or ATVs during the summer months, and with the use of snowmachines, dog teams, or snowshoes during the winter months (Holen et al. 2012). Most salmon fishing locations for Allakaket residents during 2011 were between Allakaket and the mouth of the Kanuti River. Non-salmon fish are typically harvested from the Alatna River and the main channel of the Koyukuk River. Large land mammals typically are hunted along the river corridors noted above; however, hunts for moose and caribou sometimes involve trips of 100 miles or more. The headwaters of the Alatna River drainage and the headwaters of the John River drainage are important hunting areas for Dall sheep (Holen et al. 2012).

Anaktuvuk Pass

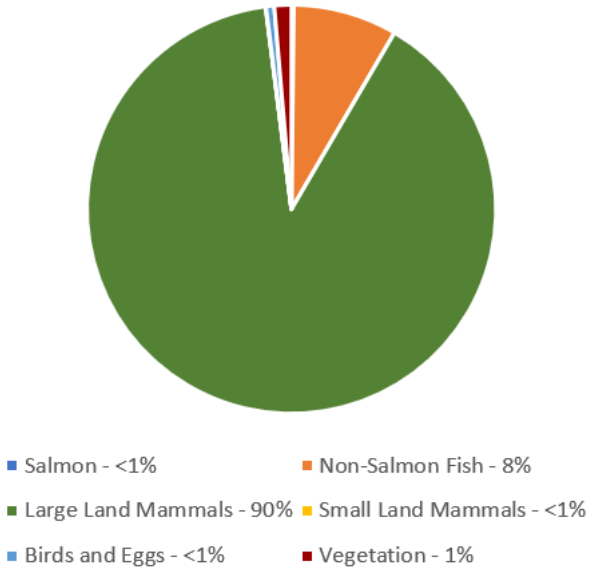
Anaktuvuk Pass is in a wide valley of the Brooks Mountain Range on the divide between the Anaktuvuk and John Rivers about 60 miles west of the Dalton Highway. According to the 2010 Census, Anaktuvuk Pass had 324 residents; however, a household survey conducted by ADFG in 2011 found an estimated population of 310 residents (Holen et al. 2012). The 2018 DCCED certified population of Anaktuvuk Pass was 376 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2014 for Anaktuvuk Pass was 124,269 pounds, or 391 pounds per capita. In terms of estimated pounds harvested, large land mammals made up the largest portion of the subsistence harvest, at 90 percent (**Figure Q-3**), which totaled 59,586 pounds, or 351 pounds per capita. Caribou (330 pounds per capita), char (24 pounds), Dall sheep (10 pounds), and moose (9 pounds) represented the highest harvest amounts in pounds per capita in Anaktuvuk Pass, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

There was an estimated average of 1,255 pounds of wild resources harvested per household (ADFG 2020). Anaktuvuk Pass households harvested an average of 7 kinds of resources and used an average of 11 kinds of resources. The maximum number of resources uses by any household was 30 (Holen et al. 2012).

Figure Q-3. Composition of Harvest by Category, Anaktuvuk Pass



Source: ADFG 2020

Large land mammals (used by 89 percent of households), non-salmon fish (89 percent), and vegetation (75 percent) had the highest percentages of household use used by the most households. Non-salmon fish (77 percent of households), vegetation (69 percent), and large land mammals (40 percent) had the highest percentages of household harvest in Anaktuvuk Pass, even though non-salmon fish contributed only 8 percent of the harvest by weight. Marine mammals and marine invertebrates were not actually harvested by Anaktuvuk Pass households; however, 60 percent of households reported receiving and using marine mammal resources from friends and relatives in coastal areas (ADFG 2020).

In 2014, only 1 percent of Anaktuvuk Pass households reported harvesting salmon, while 41 percent of households reported using salmon. Salmon harvest totaled 1 pound per capita. The most harvested salmon species in pounds per capita was sockeye salmon (1 pound). A wide variety of non-salmon fish are harvested effectively year-round by Anaktuvuk Pass households. Seventy-seven percent of households reported harvesting non-salmon fish, compared with 89 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 32 pounds per capita. The most harvested non-salmon fish in pounds per capita were char (24 pounds), lake trout (12 pounds), and grayling (7 pounds) (ADFG 2020).

The harvest of large land mammals totaled 351 pounds per capita. The most harvested large land mammal species in pounds per capita were caribou (330 pounds), Dall sheep (10 pounds), and moose (9 pounds) (ADFG 2020). In 2014, 40 percent of households participated in large land mammal harvesting, and 89 percent of households used large land mammals, primarily caribou (89 percent) and Dall sheep (40 percent).

Only 19 percent of households harvested small land mammals in 2014. Most small land mammal hunting or trapping took place during the winter, and the harvest of small land mammals totaled less than 1 pound per capita (ADFG 2020).

There were 45 percent of Anaktuvuk Pass' households that reported using birds and eggs, and 25 percent harvested them. The harvest of birds and eggs totaled 3 pounds per capita. The most harvested bird species in pounds per capita were geese (1 pound), ducks (1 pound), and upland game birds (1 pound) (ADFG 2020). No bird eggs were gathered during the survey year (Holen et al. 2012).

Although vegetation harvest contributed only 1 percent by weight of the total harvest for Anaktuvuk Pass residents, 70 percent of households reported harvesting vegetation and 75 percent reported using vegetation. The harvest of vegetation totaled 5 pounds per capita. The most harvested vegetation in pounds per capita was blueberry (2 pounds). Plants, greens, and mushrooms, salmonberry, and Eskimo potato also each contributed 1 pound per capita to the vegetation subsistence harvest in 2014.

Subsistence Use Areas

Subsistence users from Anaktuvuk Pass harvest resources to the west, beyond the Noatak River to Ambler and to the east near the Dalton Highway, east of Galbraith Lake. A large area surrounding the Killik, Chandler, Anaktuvuk, and John River drainages is also part of the subsistence use area (Brown et al. 2016). Anaktuvuk Pass residents typically utilize motorized vehicles such as trucks, snowmachines, ATVs, or Argos[1] to reach their subsistence use areas (Holen et al. 2012).

Residents of Anaktuvuk Pass travel throughout the Brooks Range, as well as the northern foothills and the transition zone to the coastal plain to hunt, fish, and gather; subsistence activities are typically highest in late summer and early fall. Anaktuvuk Pass residents were concerned declining caribou numbers and changing migration patterns; they felt that nonlocal hunters could be diverting the caribou migration by hunting the initial wave of the migrating herd, rather than allowing them to pass through the valley, as residents do (Holen et al. 2012).

Arctic Village

Arctic Village is on the south side of the Brooks Range, along the east fork of the Chandalar River, 100 miles north of Fort Yukon and 290 miles north of Fairbanks. According to the 2010 Census, Arctic Village had 152 residents. The 2018 DCCED certified population of Arctic Village was 194 (DCCED 2020).

Subsistence Harvest Patterns

Arctic Village has not had a comprehensive household harvest survey completed for the community; however, based on statements from community members during public meetings and elsewhere, the assumption is that Arctic Village residents consider caribou to be a primary food source and central to their cultural identity (BLM 2019; Kofinas et al. 2016). Participation in large land mammal hunting among Arctic Village households is high despite lacking data or low survey response rates from residents.

[1]An Argo is an amphibious all-terrain vehicle.

The Council of Athabascan Governments (2003) reported 44 moose harvested by Arctic Village households; however, these data are not estimated for the entire community, so is not comparable to more comprehensive surveys. The U.S. Fish and Wildlife Service notes that, based on reported harvests alone and not community-wide estimates, moose and caribou comprised more than 90 percent of the harvest by weight during the 1990s and early 2000s (USFWS 2015).

A study in 2002 of non-salmon fish found residents of Arctic Village harvested an estimated 18,416 pounds of non-salmon fish, or 67 pounds per capita. Grayling had the highest percentages of household harvest (29 percent of households), followed by whitefish, which was harvested by 25 percent of households. In Arctic Village, 80 percent of households reported using non-salmon fish. The most harvested non-salmon fish in pounds per capita were whitefish (56 pounds), pike (7 pounds), and grayling (3 pounds) (ADFG 2020).

Even though data on sharing subsistence resources are limited to fish, there is documentation of the strong sharing relationship between Arctic Village and its sister village of Venetie, with whom it shares ownership of tribal lands (Brown et al. 2017).

Subsistence Use Areas

Subsistence harvesting of caribou generally occurs on lands to the north of the community in the Arctic National Wildlife Refuge. Key harvesting locations are Old John Lake, the Chandalar, Sheenjek, Junjik, and Wind Rivers, and Red Sheep Creek (USFWS 2015).

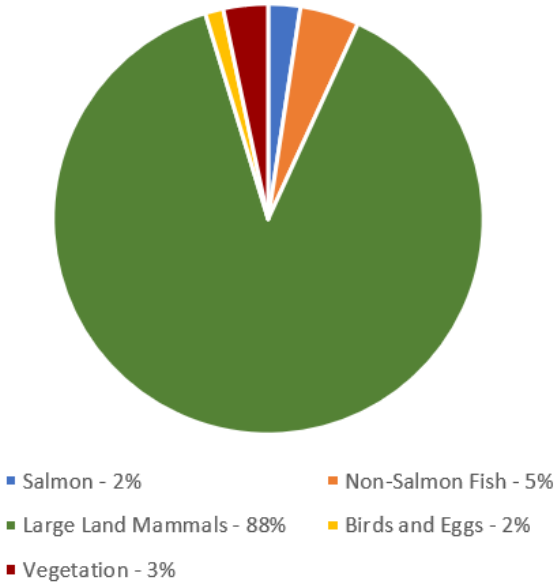
Bettles

Bettles is about 180 air miles northwest of Fairbanks, immediately to the west of the community of Evansville. It lies just north of the Kanuti National Wildlife Refuge and just south of the Brooks Range and the Gates of the Arctic National Park and Preserve. Because Bettles is surrounded by corporation-owned lands of Evansville, there is overlap in their histories and subsistence practices. Bettles is a separate census designated place. According to the 2010 Census, Bettles had 12 residents. In 2011, the ADFG recorded 8 households, consisting of 12 individuals, none of whom were Alaska Natives (Holen et al. 2012). The 2018 DCCED certified population of Bettles was 11 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2011 for Bettles was 2,104 pounds, or 175 pounds per capita. In terms of estimated pounds harvested, large land mammals made up the largest portion of the subsistence harvest, at 88 percent (**Figure Q-4**), which totaled 1,860 pounds, or 155 pounds per capita. Moose (90 pounds per capita), caribou (65 pounds), pike (6 pounds), and berries (5 pounds) represented the highest harvest amounts in pounds per capita in Bettles, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

Figure Q-4. Composition of Harvest by Category, Bettles



Source: ADFG 2020

There was an estimated average of 263 pounds of wild resources harvested per household (ADFG 2020). Bettles households harvested an average of 8 kinds of resources and used an average of 11 kinds of resources. The maximum number of resources uses by any household was 20 (Holen et al. 2012). Vegetation (used by 100 percent of households), large land mammals (88 percent), and small land mammals (63 percent) had the highest percentages of household use. Vegetation (88 percent of households), small land mammals (50 percent), and large land mammals (38 percent) had the highest percentages of household harvest in Bettles, even though vegetation contributed only 3 percent of the harvest by weight (ADFG 2020).

In 2011, 13 percent of households reported harvesting salmon, while 38 percent of households reported using salmon. Salmon harvest totaled 4 pounds per capita; the only salmon species harvested was chum salmon. Additionally, 77 percent of households reported harvesting non-salmon fish, compared with 50 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 8 pounds per capita. The most harvested non-salmon fish in pounds per capita were pike (6 pounds), char (1 pound), lake trout (1 pound), and grayling (1 pound) (ADFG 2020).

The harvest of large land mammals totaled 155 pounds per capita. The most harvested large land mammal species in pounds per capita were moose (90 pounds) and caribou (65 pounds). In 2011, 38 percent of households successfully harvested large land mammals, and 88 percent of households used large land mammals, primarily moose (75 percent of households using) and caribou (63 percent).

Fifty percent of Bettles households harvested small land mammals in 2011. The most harvested small land mammal species were marten, which were harvested for their fur (38 percent of households harvesting), lynx (25 percent), wolf (25 percent), and wolverine (25 percent) (ADFG 2020). None of the small land mammals were consumed by Bettles residents.

There were 38 percent of Bettles households that reported using birds and eggs, and 25 percent harvested them. The harvest of birds and eggs totaled 2 pounds per capita. The most harvested bird species in pounds per capita were grouse (1 pound) and ptarmigan (1 pound) (ADFG 2020). No eggs were harvested in 2011 (Holen et al. 2012).

Although vegetation harvest contributed only 3 percent by weight of the total harvest for Bettles residents, 88 percent of households reported harvesting vegetation and 100 percent reported using vegetation. The harvest of vegetation totaled 6 pounds per capita. The most harvested vegetation in pounds per capita was blueberry (3 pounds), lowbush cranberry (2 pounds), and plants, greens, and mushrooms (1 pound) (ADFG 2020).

Subsistence Use Areas

Some Bettles residents use motorized vehicles, such as trucks, snowmachines, and ATVs to access subsistence use areas; however, many residents tend to travel by foot (Holen et al. 2012). Salmon was harvested by Bettles residents in 2011 at locations far from the community. The Koyukuk River salmon populations in the vicinity of the community are very low and typically of poor quality (Holen et al. 2012); however, Bettles residents concentrated their non-salmon fish harvests on the John River close to the community and at Wild River and Colorado Creek. Residents search for large land mammals north along the John River, but there is a much greater search area for caribou than for moose along the John River Malamute Fork, Mettenpherg Creek, and areas farther west.

Small mammals and birds were trapped and harvested in the vicinity of Bettles and Evansville, along and between the Koyukuk River and its tributaries and northeast from Bettles along the Alatna River Malamute Fork and at Iniakuk Lake. Much of the berry and firewood harvests occurred to the west of Bettles, along the Koyukuk River, as well as to the north in the Ninemile Hills (Holen et al. 2012).

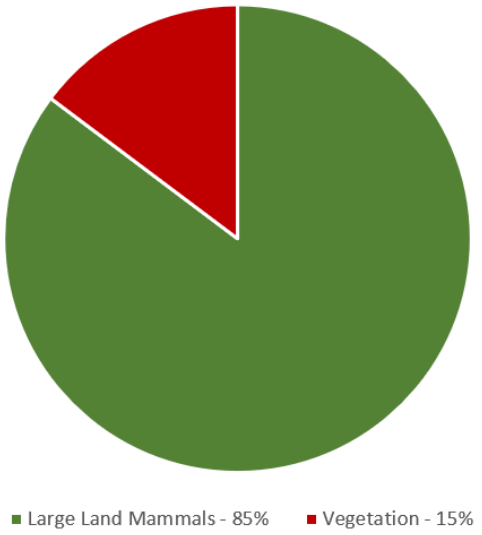
Coldfoot

Coldfoot is at the mouth of Slate Creek on the east bank of the Middle Fork Koyukuk River. It lies at mile 175 of the Dalton Highway, formerly known as the North Slope Haul Road. Coldfoot is about 11 miles downstream of and to the south of the community of Wiseman, also along the Koyukuk River. According to the Census, Coldfoot had 10 residents in 6 households in 2010. The household survey conducted by ADFG for the study year 2011 found an estimated population of 10 residents (Holen et al. 2012). The 2018 DCCED certified population of Coldfoot was 8 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2011 for Coldfoot was 381 pounds, or 38 pounds per capita. In terms of estimated pounds harvested, large land mammals (caribou) made up the largest portion of the subsistence harvest, at 85 percent (**Figure Q-5**), which totaled 325 pounds, or 33 pounds per capita.

Figure Q-5. Composition of Harvest by Category, Coldfoot



Source: ADFG 2020

There was an estimated average of 76 pounds of wild resources harvested per household (ADFG 2020). Coldfoot households harvested an average of two kinds of resources and used an average of three kinds of resources. The maximum number of resources used by any household was five (Holen et al. 2012). Caribou and blueberries had the highest percentages of household use (100 percent of households) in Coldfoot in 2011. Vegetation (100 percent of households) and large land mammals (25 percent) had the highest percentages of household harvest, even though vegetation contributed only 15 percent of the harvest by weight (ADFG 2020).

In 2011, there were no Coldfoot households that reported harvesting salmon or non-salmon fish; however, 25 percent of households reported receiving and using coho and sockeye salmon. There were no households that reported using non-salmon fish (Holen et al. 2012).

The harvest of large land mammals (caribou) totaled 33 pounds per capita. In 2011, 25 percent of households successfully harvested large land mammals (caribou), and 100 percent of households used large land mammals, primarily moose (75 percent of households using) and caribou (25 percent). No households reported using small land mammals in 2011.

Twenty-five percent of Coldfoot households reported receiving and using ptarmigan in 2011, even though no birds or eggs were directly harvested by the community that year (Holen et al. 2012).

Although vegetation harvest contributed only 15 percent by weight of the total harvest for Coldfoot residents, 100 percent of households reported harvesting and using vegetation. All households used blueberries, which accounted for an average of 11 pounds per household harvested in 2011. The harvest of vegetation totaled 6 pounds per capita. The most harvested vegetation in pounds per capita was blueberry (4 pounds) and lowbush cranberry (2 pounds) (ADFG 2020).

Subsistence Use Areas

Because there were no permanent residents in Coldfoot in 1980 when ANILCA was signed into law, the National Park Service does not recognize that Coldfoot has customary and traditional subsistence use areas in the Gates of the Arctic National Park; as a result, Coldfoot is not one of the designated communities that have special privileges to practice subsistence activities within the park boundaries. Without this, Coldfoot residents' hunting areas are significantly limited, compared with other communities in the region. Many residents use motorized vehicles such as airplanes and highway vehicles to reach their subsistence use areas (Holen et al. 2012). Residents used local areas for hunting and searching for large land mammals in 2011. Some residents feel current regulations severely limit their access to large mammal hunting and searching areas (Holen et al. 2012).

Evansville

Evansville is on the south bank of the Koyukuk River, between the confluences of the John and Wild Rivers and immediately to the east of the community of Bettles. Evansville is about 40 air miles to the northeast of Alatna and Allakaket, and 180 air miles northwest of Fairbanks. The 2010 Census recorded 15 individuals living in Evansville, 8 of whom were Alaska Natives. In 2011, the ADFG recorded 13 households consisting of 20 individuals, 9 of whom were Alaska Natives (Holen et al. 2012). The 2018 DCCED certified population of Evansville was 8 (DCCED 2020).

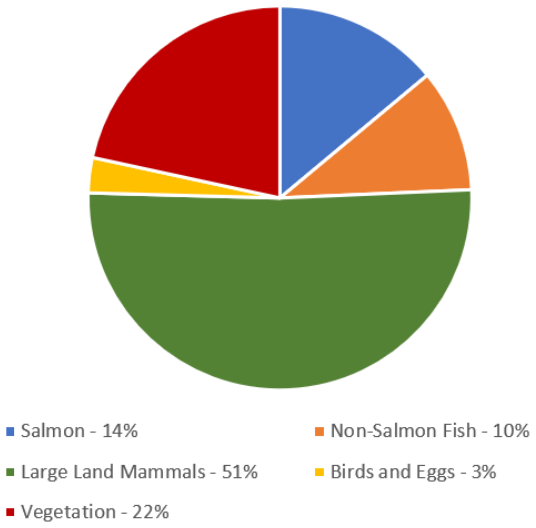
Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2011 for Evansville was 1,056 pounds, or 53 pounds per capita. In terms of estimated pounds harvested, large land mammals (moose) made up the largest portion of the subsistence harvest at 51 percent (**Figure Q-6**), which totaled 540 pounds, or 27 pounds per capita. Moose (27 pounds per capita), sockeye salmon (5 pounds), lowbush cranberries (4 pounds), and blueberries (4 pounds) represented the highest harvest amounts in pounds per capita in Evansville, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

There was an estimated average of 81 pounds of wild resources harvested per household (ADFG 2020). Evansville households harvested an average of 5 kinds of resources and used an average of 12 kinds of resources. The maximum number of resources used by any household was 28 (Holen et al. 2012). Vegetation (used by 100 percent of households), large land mammals (92 percent), salmon (62 percent), and birds and eggs (62 percent) had the highest percentages of household use in Evansville. Vegetation (100 percent of households), birds and eggs (38 percent), and non-salmon fish (38 percent) had the highest percentages of household harvest, even though birds and eggs contributed only 3 percent of the harvest by weight (ADFG 2020).

In 2011, 8 percent of households reported harvesting salmon, while 62 percent of households reported using salmon. Salmon harvest totaled 7 pounds per capita. The most harvested salmon species in pounds per capita were sockeye salmon (5 pounds) and Chinook salmon (3 pounds). Additionally, 38 percent of households reported harvesting non-salmon fish, compared with 77 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 5 pounds per capita. The most harvested non-salmon fish in pounds per capita were char (2 pounds), sheefish (2 pounds), and trout (1 pound) (ADFG 2020).

Figure Q-6. Composition of Harvest by Category, Evansville



Source: ADFG 2020

The harvest of large land mammals (moose) totaled 27 pounds per capita. In 2011, only 8 percent of households successfully harvested large land mammals, and 92 percent of households used large land mammals, primarily moose (85 percent of households using) and caribou (77 percent).

Additionally, only 8 percent of Evansville households harvested small land mammals in 2011, with marten being the only small land mammal harvested. Martens were harvested for their fur and were not consumed by Evansville residents. Most small land mammal hunting or trapping took place during the winter, and the most used species by household were marten (15 percent of households used), lynx (8 percent), fox (8 percent), and beaver (8 percent) (ADFG 2020).

Sixty-two percent of Evansville households reported using birds and eggs, and 38 percent harvested them, even though they contributed only 3 percent to the total composition of harvest by weight. The harvest of birds and eggs totaled 2 pounds per capita. The most harvested bird species in pounds per capita were grouse (1 pound) and ptarmigan (1 pound) (ADFG 2020). No bird eggs were harvested by Evansville households during the 2011 study year (ADFG 2020).

One hundred percent of Evansville residents reported harvesting and using vegetation. Blueberries (85 percent of households harvested), low bush cranberries (69 percent), and wood (54 percent) were harvested by the most households. The harvest of vegetation totaled 11 pounds per capita. The most harvested vegetation in pounds per capita was blueberry (4 pounds), lowbush cranberry (4 pounds), highbush cranberry (1 pound), raspberry (1 pound), and salmonberry (1 pound) (ADFG 2020).

Subsistence Use Areas

Evansville residents tend to favor subsistence use areas in the immediate vicinity of the community. Some residents use motorized vehicles such as trucks, snowmachines, and ATVs to hunt, fish, and gather, while others travel on foot (Holen et al. 2012). However, salmon was harvested by Evansville residents in 2011 at locations far from the community; the Koyukuk River salmon populations in the vicinity of the community

are very low and typically of poor quality (Holen et al. 2012). Evansville residents concentrated their non-salmon fish harvests on the Koyukuk River, close to the community, and at Wild and Iniakuk Lakes.

A large radius surrounding the community is typically used for hunting large land mammals. Small land mammals (all of which were martens in 2011) were trapped and upland game birds were harvested east from Evansville, along the Koyukuk River and north along the John and Wild Rivers. Most wild plants and berries were harvested close to the community of Evansville and about a mile to the west of Bettles past the floatplane pond (Holen et al. 2012).

Some community members feel that the quality and availability of salmon and non-salmon resources, once important components of Evansville harvests, have declined dramatically since the 1980s, due to warmer river temperatures and high levels of debris and silt in the water (Holen et al. 2012). Residents also reported that large land mammal resources have been extremely scarce in the area.

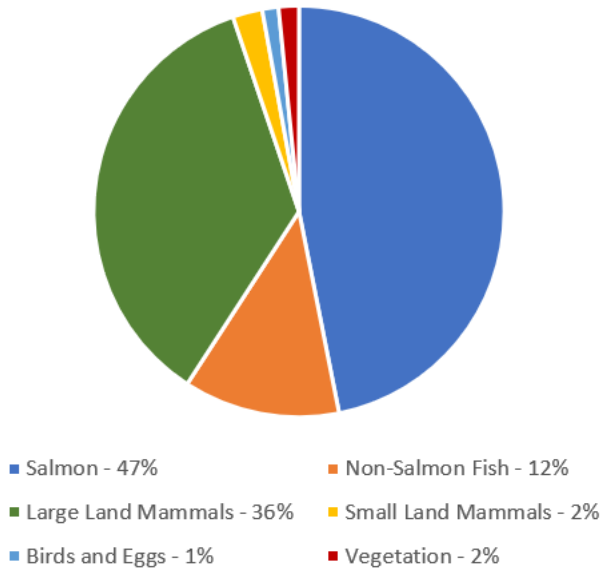
Galena

Galena is on the north bank of the Yukon River, 45 miles east of Nulato and 270 air miles west of Fairbanks. It lies northeast of the Innoko National Wildlife Refuge. The 2010 Census estimated a total population of 470 residents for Galena. The 2018 DCCED certified population of Galena was 460 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2010 for Galena was 107,644 pounds, or 254 pounds per capita. In terms of estimated pounds harvested, salmon made up the largest portion of the subsistence harvest at 47 percent (**Figure Q-7**), which totaled 50,416 pounds, or 119 pounds per capita. Moose (85 pounds per capita), chum salmon (64 pounds), chinook salmon (37 pounds), and whitefish 914 pounds) represented the highest harvest amounts in pounds per capita in Galena, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

Figure Q-7. Composition of Harvest by Category, Galena



Source: ADFG 2020

There was an average of 683 pounds of wild resources harvested per household in 2010 (ADFG 2020). Galena households harvested an average of 7 kinds of resources and used an average of 10 kinds of resources. The maximum number of resources used by any household was 37 (Brown et al. 2015). Moose (used 85 percent of households), Chinook salmon (68 percent), blueberries (54 percent), and chum salmon (35 percent) had the highest percentages of household use in Galena in 2010. Moose (41 percent of households), Chinook salmon (39 percent), and chum salmon (26 percent) had the highest percentages of household's harvest (ADFG 2020).

In 2010, 46 percent of households reported harvesting salmon, while 75 percent of households reported using salmon. Salmon harvest totaled 119 pounds per capita. The most harvested salmon species in pounds per capita were chum salmon (64 pounds), Chinook salmon (38 pounds) and coho salmon (14 pounds). Additionally, 39 percent of households reported harvesting non-salmon fish, compared with 63 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 31 pounds per capita. The most harvested non-salmon fish in pounds per capita were whitefish (14 pounds), sheefish (7 pounds), and northern pike (4 pounds) (ADFG 2020).

The harvest of large land mammals totaled 90 pounds per capita. The most harvested large land mammal species in pounds per capita were moose (85 pounds), black bear (2 pounds), and caribou (2 pounds). Moose were harvested by 41 percent of households and used by 85 percent. Black bears were the second-most harvested large land mammal in 2010, harvested by 5 percent of households and used by 13 percent.

Galena households harvested small land mammals for both food and for fur in 2010. Snowshoe hares were the most widely harvested (18 percent) and the most used (20 percent) small mammal by household. The harvest of small land mammals totaled 6 pounds per capita. The most harvested small mammal species in terms of pounds per capita were beavers (4 pounds), snowshoe hare (1 pound), and lynx (1 pound) (ADFG 2020).

Fifty-six percent of Galena households reported using birds and eggs in 2010, and 50 percent harvested them, even though they contributed only 1 percent to the total estimated pounds of harvest. The harvest of birds and eggs totaled 3 pounds per capita. The most harvested bird species in pounds per capita were grouse (2 pounds) and geese (1 pound) (ADFG 2020). No bird eggs were gathered during the 2010 study year (ADFG 2020).

In 2010, 76 percent of Galena households reported harvesting vegetation, and 80 percent of households reported using vegetation. Wood was harvested by 59 percent of households and used by 63 percent, mainly for firewood and smoking fish (Brown et al. 2015). The harvest of vegetation totaled 4 pounds per capita. The most harvested vegetation in pounds per capita was blueberry (1 pound), lowbush cranberry (1 pound), and highbush cranberry (1 pound) (ADFG 2020).

Subsistence Use Areas

Salmon was harvested by Galena residents in 2010 along approximately 20 miles of the Yukon River, from as far downstream as the community of Nulato to as far upstream as 5 miles above Fish Island. Non-salmon fish species were harvested primarily within a 5-mile stretch of the Yukon River upstream and downstream from Galena, as well as in Jimmy Slough, Bear Creek, and the Koyukuk drainage at the Batza River. All of Galena's search and harvest areas for moose in 2010 were in GMU 21D, with search and harvest areas extending along the Koyukuk, Yukon, and Yuki Rivers and into their drainages.

Galena households used a large area north of the community, along the Koyukuk River to the Kateel River toward the community of Huslia, to search for and harvest small mammals. Areas along the Yuki River were also targeted for small mammal search and harvest; however, the Kala Slough, immediately upriver of Galena,

was the most accessible area used in 2010 for small mammal search and harvest. Ptarmigan and grouse were mostly harvested in and around Galena, while residents were pursuing other subsistence resources. Berries and greens were harvested in a variety of locations, including both sides of the Yukon River close to the community, Bear Creek, and Beaver Creek.

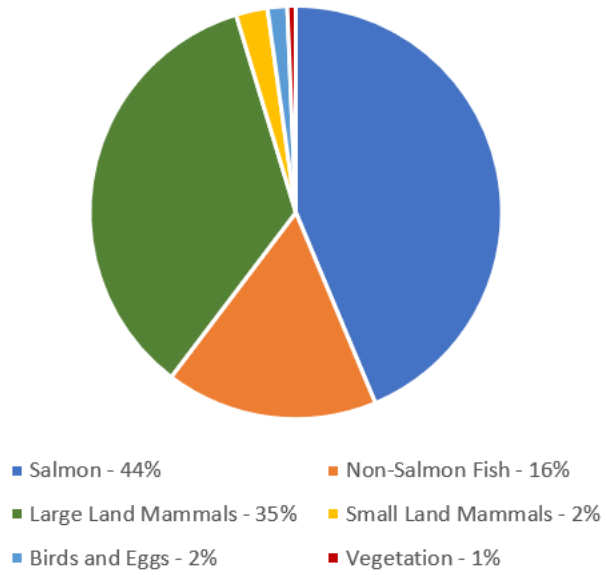
Hughes

Hughes is on a 500-foot bluff on the east bank of the Koyukuk River, about 115 air miles northeast of Galena and 210 air miles northwest of Fairbanks. The 2010 Census estimated the population of Hughes to be 77. The estimate provided by ADFG associated with the 2014 study year was 90 (Wilson and Kostick 2016). The 2018 DCCED certified population of Hughes was 104 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2014 for Hughes was 32,448 pounds, or 360 pounds per capita. In terms of estimated pounds harvested, salmon made up the largest portion of the subsistence harvest at 44 percent (**Figure Q-8**), which totaled an estimated 14,178 pounds, or 157 pounds per capita. Chum salmon (156 pounds per capita), moose (78 pounds), whitefish (44 pounds), and caribou (30 pounds) represented the highest harvest amounts in pounds per capita in Hughes, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

Figure Q-8. Composition of Harvest by Category, Hughes



Source: ADFG 2020

There was an average of 954 pounds of wild resources harvested per household (ADFG 2020). Hughes households harvested an average of 7 kinds of resources and used an average of 10. The maximum number of resources used by any household was 26 (Wilson and Kostick 2016).

In 2014, 19 percent of households reported harvesting salmon, while 58 percent of households reported using salmon. Salmon harvest totaled 157 pounds per capita. The most harvested salmon species in pounds per capita were chum salmon (155 pounds) and Chinook salmon (2 pounds). Additionally, 39 percent of

households reported harvesting non-salmon fish, compared with 73 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 60 pounds per capita. The most harvested non-salmon fish in pounds per capita were whitefish (44 pounds), sheefish (10 pounds), and northern pike (4 pounds) (ADFG 2020).

The harvest of large land mammals totaled 126 pounds per capita. The most harvested large land mammal species in pounds per capita were moose (78 pounds), caribou (30 pounds), and black bear (17 pounds). Moose were harvested by 35 percent of households and used by 96 percent of households, which indicates a high degree of resource sharing (Brown and Kostick 2017). Black bears were the second-most harvested large land mammal in 2014, harvested by 27 percent of households and used by 54 percent. Caribou were also reported as used by 12 percent of Hughes households and harvested by 31 percent.

Hughes households did not report harvesting any marine mammals; however, 31 percent of households reported receiving and using whales and seals via sharing networks with friends and families from coastal areas (ADFG 2020).

Hughes households harvested small land mammals for both food and fur in 2014. The harvest of small land mammals (beavers) totaled 9 pounds per capita (ADFG 2020). Beavers were the most widely harvested (19 percent of households) and used (31 percent) small mammal. Martens and wolverines were the next most widely harvested and used small mammals (12 percent of households each). Muskrats and lynx were also reported both harvested and used by 12 percent of households.

Sixty-two percent of Hughes households reported using birds and eggs in 2014 and 50 percent harvested them. The harvest of birds and eggs totaled 6 pounds per capita. The most harvested bird species in pounds per capita were geese (3 pounds), ducks (2 pounds), and grouse (1 pound) (ADFG 2020). Geese (48 percent of households harvested), ducks (39 percent), and grouse (39 percent) were the most harvested birds by Hughes households. Geese (58 percent of households using), ducks (42 percent), and grouse (42 percent) were the most used. No Hughes households reported harvesting or using bird eggs in 2014 (ADFG 2020).

In 2014, 39 percent of Hughes households reported harvesting vegetation, and 46 percent of households reported using vegetation. The harvest of vegetation totaled 2 pounds per capita. The most harvested vegetation in pounds per capita was blueberry (1 pound), and plants, greens, and mushrooms (1 pound) (ADFG 2020). Blueberries (15 percent of households harvested), cloudberries (12 percent), and chaga (a fungus commonly used for tea) (12 percent) were harvested by the most households in Hughes. Wood was harvested and used by 4 percent of households, mainly for heating homes (Wilson and Kostick 2016).

Subsistence Use Areas

Hughes residents typically harvested salmon and non-salmon along the mainstem of the Koyukuk River, around the mouth of Hughes Creek or downstream of the Batza River. Hughes is in GMU 24C; large land mammals, primarily moose and black bears, were hunted by Hughes residents along the Koyukuk River, between Huslia and Allakaket. Small land mammals were typically harvested in the flats between the Little Indian River and the Koyukuk River. Trapping took place close to the community along Hughes Creek and in the Indian Mountains in 2014. Ducks and geese were harvested along the Koyukuk River; Huggins Island was a primary search and harvest area. Grouse were reportedly harvested only around the communities of Hughes and Huslia (Wilson and Kostick 2016).

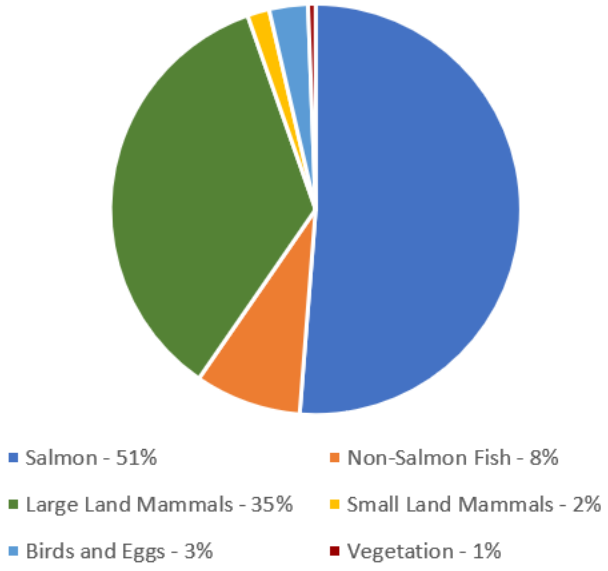
Huslia

Huslia is on the north bank of the Koyukuk River, about 170 river miles northwest of Galena and 290 air miles west of Fairbanks, in the Koyukuk National Wildlife Refuge. According to the 2010 Census, Huslia had 275 residents. The 2018 DCCED certified population of Huslia was 310 (DCCED 2020).

Subsistence Harvest Patterns

Limited data are available for Huslia in the ADFG CSIS, with 1983 being the representative year. The total estimated harvest for all subsistence resources that year for Huslia was 208,165 pounds, or 1,082 pounds per capita. In terms of estimated pounds harvested, salmon made up the largest portion of the subsistence harvest in 1983 at 51 percent (**Figure Q-9**), which totaled an estimated 106,674 pounds harvested, or 555 pounds per capita. Chum salmon (533 pounds per capita), moose (311 pounds), caribou (36 pounds), sheefish (32 pounds), and black bear (32 pounds) represented the highest harvest amounts in pounds per capita in Huslia, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

Figure Q-9. Composition of Harvest by Category, Huslia



Source: ADFG 2020

There was an average of 3,652 pounds of wild resources harvested per household (ADFG 2020). Hughes households harvested an average of 10 kinds of resources and used 29 of 43 distinct resource types for food. The maximum number of resources used by any household was 31 (Marcotte 1986).

In 1983, 45 percent of households reported harvesting salmon, while 66 percent of households reported harvesting non-salmon fish. Data is not available on the percent of households using salmon and non-salmon fish from 1983 (ADFG 2020). Salmon harvest totaled 555 pounds per capita. The most harvested salmon species in pounds per capita were chum salmon (533 pounds) and Chinook salmon (21 pounds). Non-salmon fish harvest totaled 91 pounds per capita. The most harvested non-salmon fish in pounds per capita were sheefish (32 pounds), pike (29 pounds), and whitefish (22 pounds) (ADFG 2020).

The harvest of large land mammals totaled 379 pounds per capita. The most harvested large land mammal species in pounds per capita were moose (311 pounds), caribou (36 pounds), and black bear (32 pounds). Moose was the most harvested large land mammal by Huslia households in 1983, harvested by 77 percent of households. The 1983 harvest of moose represents an average of 1.5 moose per household (Marcotte 1986).

The harvest of small land mammals totaled 19 pounds per capita. The most harvested small mammal species in terms of pounds per capita were beavers (13 pounds), snowshoe hare (3 pounds), and muskrat (2 pounds) (ADFG 2020). Martens were reported as the most used small land mammal, with 52 percent of households using, followed by fox (50 percent).

Seventy-five percent of Huslia households reported harvesting birds and eggs in 1983. The harvest of birds and eggs totaled 33 pounds per capita. The most harvested bird species in pounds per capita were geese (24 pounds), ducks (8 pounds), and grouse (1 pound) (ADFG 2020). Ducks (70 percent of households harvested), geese (64 percent), and upland game birds (52 percent) were the most harvested birds by Huslia households. There were no Huslia households that reported harvesting or using bird eggs in 1983 (ADFG 2020).

In 1983, 96 percent of Huslia households reported harvesting vegetation. Seventy-five percent of all Huslia households reported using edible plants (Marcotte 1986). Wood was harvested by 84 percent of households and was mainly used for smoking fish and heating homes (Marcotte 1986). The harvest of vegetation (berries) totaled 6 pounds per capita (ADFG 2020).

Subsistence Use Areas

Fish harvest areas in 1983 were reported along the Koyukuk River from the Dulbi River to Cutoff Slough. The Huslia River and Huntington Slough were also used for non-salmon fish harvest. Residents searched for and harvested large land mammal as far up the Koyukuk River as the mouth of the Hogatza River, along the Huslia and Dulbi Rivers, and the Dulbi Slough. Small land mammal trapping areas in 1983 were linked closely to kinship and family history.

Search and harvest locations were identified along the Dakli River, Cutoff Slough, Holitnakakatina Creek, Natlaratlen River, and along the North Fork of the Huslia River. Small game and waterfowl were typically harvested in the same general areas identified for large land mammal search and harvest, including Cutoff Slough and Huntington Slough. Vegetation and wood were gathered within 8 miles of the community, along local trails and in areas accessible by the river.

Kaltag

Kaltag is on the west bank of the Yukon River, 75 miles west of Galena and 335 miles west of Fairbanks. It is situated on a 35-foot bluff at the base of the Nulato Hills, west of the Innoko National Wildlife Refuge. According to the 2010 Census, Kaltag had 190 residents. The 2018 DCCED certified population of Kaltag was 169 (DCCED 2020).

Limited data are available for Kaltag in the ADFG CSIS. In 1985, a study was conducted focusing specifically on salmon harvest (Wheeler 1987). Kaltag's total estimated harvest in 1985 for salmon was 173,670 pounds, or 665 pounds per capita. In terms of pounds harvested, chum salmon made up the largest portion of the subsistence harvest, at an estimated 163,665 pounds harvested, or 627 pounds per capita (ADFG 2020).

In 2006, a study was conducted that focused on non-salmon fish (ADFG 2020). The total estimated harvest of non-salmon fish in 2006 for Kaltag was 4,779 pounds, or 23 pounds per capita. Whitefish made up the largest portion of the subsistence harvest, with 1,734 pounds harvested, or 8 pounds per capita (ADFG 2020). Grayling (49 percent of households) and sheefish (43 percent) had the highest percentages of household's

harvest in Kaltag in 2006. Sheefish and grayling had the highest percentages of household use, used by 62 and 61 percent, respectively (ADFG 2020). The most harvested non-salmon fish in pounds per capita were whitefish (8 pounds), sheefish (6 pounds), pike (5 pounds), and grayling (3 pounds) (ADFG 2020).

During the 1985 study year, salmon were harvested from areas along the east bank of the Yukon River, either slightly upriver or downriver from the community (Wheeler 1987).

Koyukuk

Koyukuk is on the Yukon River near the mouth of the Koyukuk River, 30 miles west of Galena and 290 air miles west of Fairbanks. It is next to the Koyukuk National Wildlife Refuge and the Innoko National Wildlife Refuge. According to the 2010 Census, Koyukuk had 96 residents. The 2018 DCCED certified population of Koyukuk was 86 (DCCED 2020).

Limited data are available for this community in the ADFG CSIS. In 2002, a study was conducted that focused on non-salmon fish (Brown et al. 2005). The total estimated harvest of non-salmon fish in 2002 for Koyukuk was 7,395 pounds, or 71 pounds per capita. Of that amount, 56 percent were whitefish and 31 percent was sheefish. Whitefish made up the largest portion of the subsistence harvest with an estimated 4,140 pounds harvested, or 40 pounds per capita (ADFG 2020). Sheefish contributed an estimated 2,304 pounds to the total harvest, or 22 pounds per capita. Sheefish (48 percent of households) and whitefish (41 percent) had the highest percentages of household's harvest in 2006. Sheefish and whitefish had the highest percentages of household use, used by 66 and 64 percent, respectively (ADFG 2020).

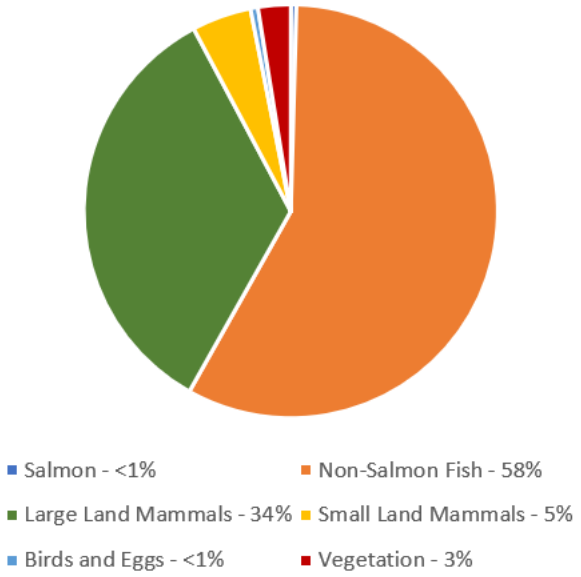
Lake Minchumina

Lake Minchumina is north of Denali (Mt. McKinley) in Interior Alaska, at the headwaters of the Tanana-Yukon drainage. The 2010 Census counted 13 residents in Lake Minchumina. The 2018 DCCED certified population of Lake Minchumina was 9 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2002 for Lake Minchumina was 7,907 pounds, or 296 pounds per capita. In terms of estimated pounds harvested, non-salmon fish made up the largest portion of the subsistence harvest at 58 percent (**Figure Q-10**), which totaled an estimated 4,564 pounds, or 171 pounds per capita. Moose (93 pounds per capita), whitefish (90 pounds), and pike (43 pounds) represented the highest harvest amounts in pounds per capita in Lake Minchumina, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

Figure Q-10. Composition of Harvest by Category, Lake Minchumina



Source: ADFG 2020

There was an average of 791 pounds of wild resources harvested per household (ADFG 2020). Lake Minchumina households harvested an average of 11 kinds of resources and used an average of 13 kinds of resources. The maximum number of resources used by any household was 23 (Holen et al. 2006).

In 2002, 17 percent of households reported harvesting salmon, while 83 percent of households reported using salmon. Salmon harvest totaled 1 pound per capita; the only salmon species reported harvested was chum salmon. Additionally, 100 percent of households reported harvesting non-salmon fish, and 100 percent reported using non-salmon fish. Non-salmon fish harvest totaled 171 pounds per capita. The most harvested non-salmon fish in pounds per capita were whitefish (91 pounds), pike (43 pounds), and burbot (22 pounds) (ADFG 2020).

The harvest of large land mammals totaled 101 pounds per capita. The most harvested large land mammal species in pounds per capita were moose (94 pounds) and black bear (7 pounds). Moose was the most used large land mammal by Lake Minchumina households in 2002, harvested by 50 percent of households and used by 100 percent; it was the only large land mammal reported as harvested that year. There were 17 percent of Lake Minchumina households that reported using both black bear and caribou in 2002.

Lake Minchumina households harvested small land mammals mostly for fur in 2002. The harvest of small land mammals totaled 14 pounds per capita. The most harvested small mammal species in terms of pounds per capita were beavers (8 pounds), porcupine (5 pounds), and snowshoe hare (1 pound) (ADFG 2020). Martens were the most used (67 percent) small mammal by household, followed by beaver (50 percent), and lynx (50 percent).

There were 83 percent of Lake Minchumina households that reported both using and harvesting birds and eggs in 2002. The harvest of birds and eggs totaled 2 pounds per capita; upland game birds like grouse (1 pound) and ptarmigan (less than 1 pound) accounted for the most pounds per capita of the harvest. (ADFG 2020). Grouse (83 percent of households), ducks (17 percent), and ptarmigan (17 percent) were the most used birds by Lake Minchumina households. There were no households that reported harvesting bird eggs in 2002 (ADFG 2020).

In 2002, 83 percent of Lake Minchumina households reported harvesting vegetation, and 100 percent of households reported using vegetation. Berries were harvested by the most households (50 percent) and used by the most households (67 percent). Wood was harvested by 83 percent of households and used by 100 percent. The harvest of vegetation (berries) totaled 8 pounds per capita in 2002 (ADFG 2020).

Subsistence Use Areas

The subsistence search and harvest area used by the community is localized to the area including the lake itself or within 30 to 40 miles of the community. Non-salmon fish search and harvest areas focus in and around Lake Minchumina and associated river systems. Most large land mammal hunting is done by Lake Minchumina residents in GMU 20C and to the east, by heading down the Muddy River (Holen et al. 2006).

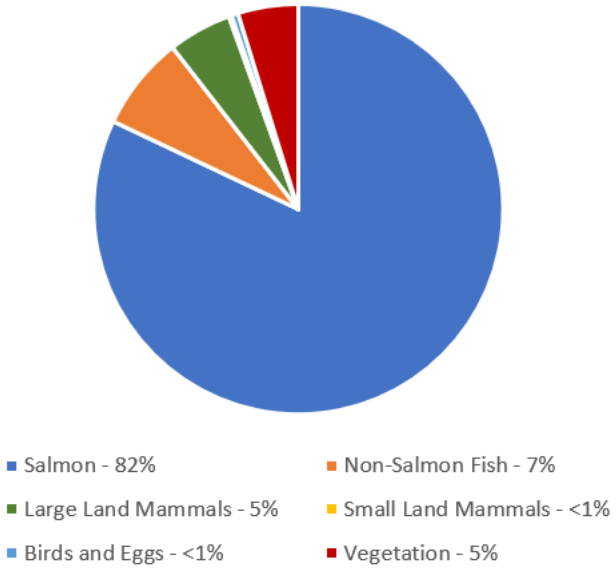
Manley Hot Springs

Manley Hot Springs is about 5 miles north of the Tanana River on Hot Springs Slough, at the end of the Elliott Highway, 160 road miles west of Fairbanks. According to the 2010 Census, Manley Hot Springs had 89 residents. In 2013, the ADFG conducted a study of the harvest and use of subsistence resources in 2012 by Manley Hot Springs residents (Brown et al. 2014). It estimated that the 2013 population of Manley Hot Springs was 123 individuals living in 58 households. The 2018 DCCED certified population of Manley Hot Springs was 114 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2012 for Manley Hot Springs was 52,438 pounds, or 426 pounds per capita. In terms of estimated pounds harvested, salmon made up the largest portion of the subsistence harvest at 82 percent (**Figure Q-11**), which totaled an estimated 43,021 pounds, or 350 pounds per capita. Chinook salmon (105 pounds per capita), coho salmon (96 pounds), and moose (21 pounds) represented the highest harvest amounts in pounds per capita in Manley Hot Springs, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

Figure Q-11. Composition of Harvest by Category, Manley Hot Springs



Source: ADFG 2020

There was an average of 904 pounds of wild resources harvested per household (ADFG 2020). Manley Hot Springs households harvested an average of 9 kinds of resources and used an average of 14. The maximum number of resources used by any household was 30 (Brown et al. 2014).

In 2012, 27 percent of households reported harvesting salmon, while 93 percent of households reported using salmon. Salmon harvest totaled 350 pounds per capita. The most harvested salmon species in pounds per capita were chum salmon (146 pounds), Chinook salmon (105 pounds), and coho salmon (96 pounds). Additionally, 39 percent of households reported harvesting non-salmon fish, compared with 80 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 32 pounds per capita. The most harvested non-salmon fish in pounds per capita were whitefish (16 pounds), northern pike (8 pounds), and sheefish (4 pounds) (ADFG 2020).

The harvest of large land mammals totaled 21 pounds per capita. The most harvested large land mammal species in pounds per capita were moose (21 pounds) and black bear (1 pound). Moose was the most used large land mammal by Manley Hot Springs households in 2012. Moose were harvested by 10 percent of households and used by 68 percent of households, which indicates a high degree of resource sharing (Brown et al. 2014). Black bears were the only other harvested large land mammal in 2012, harvested by 2 percent of households and used by 12 percent. Caribou and deer were also reported as used by 24 percent and 5 percent, respectively, of Manley Hot Springs households.

Manley Hot Springs households harvested small land mammals for both food and fur in 2012. The harvest of small land mammals totaled 1 pound per capita. The most harvested small mammal species in terms of pounds per capita were beaver (less than 1 pound) and snowshoe hare (less than 1 pound) (ADFG 2020). Martens were the most widely used (22 percent) small mammal by household, followed by lynx (17 percent) and red fox (15 percent).

There were 54 percent of Manley Hot Springs households that reported using birds and eggs in 2012, and 41 percent harvested them. The harvest of birds and eggs totaled 2 pounds per capita. The most harvested bird species in pounds per capita were grouse (2 pounds) and ducks (less than 1 pound) (ADFG 2020). Grouse (46 percent of households using) and ducks (22 percent) were the most used birds by Manley Hot Springs households. Five percent of Manley Hot Springs households reported harvesting bird eggs, and 10 percent of households reported using them in 2012ADFG, representing less than 1 pound per capita of the 2012 subsistence harvest (ADFG 2020).

In 2012, 95 percent of Manley Hot Springs households reported harvesting vegetation, and 100 percent of households reported using vegetation. The harvest of vegetation totaled 20 pounds per capita. The most harvested vegetation in pounds per capita was blueberry (8 pounds), lowbush cranberry (5 pounds), raspberry (2 pounds), and unknown mushrooms (1 pound) (ADFG 2020). Wood was harvested by 76 percent of households and used by 83 percent, mainly for heating homes (Brown et al. 2014).

Subsistence Use Areas

Subsistence search and harvest areas for residents of Manley Hot Springs fall between the communities of Tanana in the west, and Minto in the east and are concentrated north and south of the Elliott Highway. The northernmost extent of the subsistence use areas is along the Yukon River, just south of the Dalton Highway (Brown et al. 2014).

Manley Hot Springs households harvested salmon and non-salmon fish from multiple locations along the Yukon and Tanana Rivers, Hot Springs Slough, and various lakes and streams around the community.

Chinook salmon were harvested primarily from an area on the Yukon River known as the Rapids. In 2012, Manley Hot Springs households used the existing road system, old mining roads, and waterways to access search and harvest areas for large land mammals, primarily moose. The main area extended south of the Tanana River, between Manley Hot Springs and Cosna Bluffs. The primary search and harvest areas for small land mammals and birds was in the same area as moose. Additional search and harvest areas for small land mammals and birds were reported along the Elliott Highway, between Manley Hot Springs and Baker Lake. Most search and harvest areas for vegetation are found close to the community, along road corridors, along the Tanana River, and around the Rapids (Brown et al. 2014).

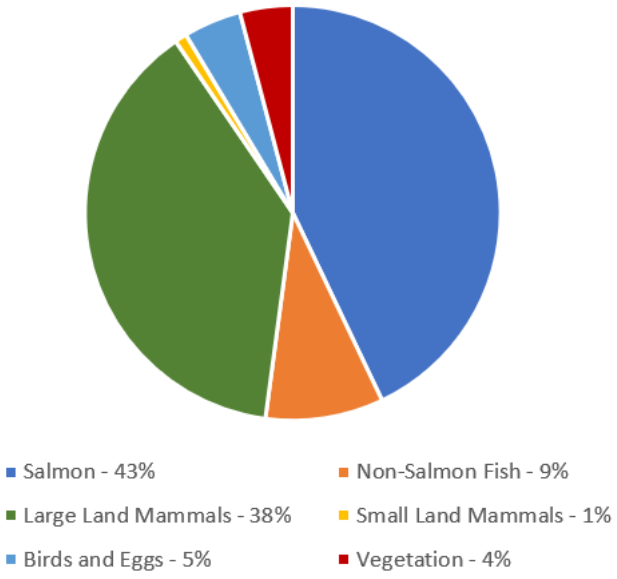
Minto

Minto is on the west bank of the Tolovana River, 130 miles northwest of Fairbanks. The community can be reached from the Elliot Highway via the 11-mile Minto Spur Road. According to the 2010 Census, Minto had 210 residents. In 2013, the ADFG conducted a study of the harvest and use of subsistence resources by Minto residents and estimated that the 2013 population consisted of 176 individuals living in 61 households; 95 residents were Alaska Natives (Brown et al. 2014). The 2018 DCCED certified population of Minto was 208 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2012 for Minto was 39,772 pounds, or 226 pounds per capita. In terms of estimated pounds harvested, salmon made up the largest portion of the subsistence harvest, at 43 percent (**Figure Q-12**), which totaled an estimated 17,075 pounds, or 97 pounds per capita. Moose (85 pounds per capita), chum salmon (42 pounds), and coho salmon (25 pounds) represented the highest harvest amounts in pounds per capita in Minto, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

Figure Q-12. Composition of Harvest by Category, Minto



Source: ADFG 2020

There was an average of 652 pounds of wild resources harvested per household (ADFG 2020). Minto households harvested an average of 8 kinds of resources and used an average of 12 kinds of resources. The maximum number of resources used by any household was 32 (Brown et al. 2014).

In 2012, 30 percent of Minto households reported harvesting salmon, while 91 percent of households reported using salmon. Salmon harvest totaled 97 pounds per capita. The most harvested salmon species in pounds per capita were chum salmon (42 pounds), coho salmon (25 pounds), and Chinook salmon (20 pounds). Additionally, 39 percent of Minto households reported harvesting non-salmon fish, compared with 65 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 21 pounds per capita. The most harvested non-salmon fish in pounds per capita were northern pike (9 pounds), whitefish (8 pounds), and sheefish (3 pounds) (ADFG 2020).

The harvest of large land mammals totaled 86 pounds per capita. The most harvested large land mammal species in pounds per capita were moose (85 pounds), black bear (1 pound), and Dall sheep (1 pound). Moose were harvested by 37 percent of Minto households and used by 96 percent of households, which indicates a high degree of resource sharing (Brown et al. 2014). Black bears were the only other harvested large land mammal in 2012, harvested by 7 percent of households and used by 11 percent. Dall sheep were also reported as used and harvested by 2 percent of Minto households.

Minto households harvested small land mammals for both food and fur in 2012. The harvest of small land mammals totaled 2 pounds per capita. The most harvested small mammal species in terms of pounds per capita were beavers (2 pounds), snowshoe hare (less than 1 pound), and muskrat (less than 1 pound) (ADFG 2020). Beavers were the most widely harvested (9 percent of households) and used (33 percent) small mammal. Snowshoe hares were used by 13 percent of households, and martens were used by 7 percent.

There were 78 percent of Minto households that reported using birds and eggs in 2012, and 59 percent harvested them. The harvest of birds and eggs totaled 10 pounds per capita. The most harvested bird species in pounds per capita were ducks (5 pounds), geese (4 pounds), and grouse (1 pound) (ADFG 2020). Geese (48 percent of households harvested) and ducks (52 percent) were the most harvested birds by Minto households. Ducks (76 percent of households using) and geese (72 percent) were also the most used birds by Minto households. Two percent of Minto households reported harvesting and using bird eggs in 2012ADFG, representing less than 1 pound per capita of the subsistence harvest (ADFG 2020).

In 2012, 91 percent of Minto households reported harvesting vegetation, and 98 percent of households reported using vegetation. The harvest of vegetation totaled 9 pounds per capita. The most harvested vegetation in pounds per capita was blueberry (5 pounds), lowbush cranberry (2 pounds), highbush cranberry (1 pound), and plants, greens, and mushrooms (1 pound) (ADFG 2020). Wood was harvested by 74 percent and used by 87 percent of households in Minto and was mainly used for heating homes (Brown et al. 2014).

Subsistence Use Areas

Subsistence search and harvest areas for residents of Minto generally centered on the Minto Flats State Game Refuge, extending between the communities of Tanana to the west, Stevens Village to the north, and Fairbanks to the east; the southernmost use area was along the Kantishna River. Salmon search and harvest areas were focused along the Tanana and Tolovana Rivers. Swanneck Slough was also identified as an important salmon harvest area for Minto residents. Non-salmon fish search and harvest are concentrated in lakes, sloughs, and rivers surrounding the community and include areas along the Tanana and Tolovana Rivers.

Large land mammals, specifically moose and black bears, were hunted along portions of the Elliot Highway, the Tanana, Tolovana, and Catanika Rivers, as well as multiple smaller lakes and waterways. Small land mammals were primarily searched for and harvested from areas surrounding the Tolovana and Chatanika Rivers. Minto residents harvested ducks and geese along the upper Tolovana River and other lakes near the community. The Minto Spur Road and Elliot Highway were also used to hunt for ptarmigan and grouse and to harvest vegetation.

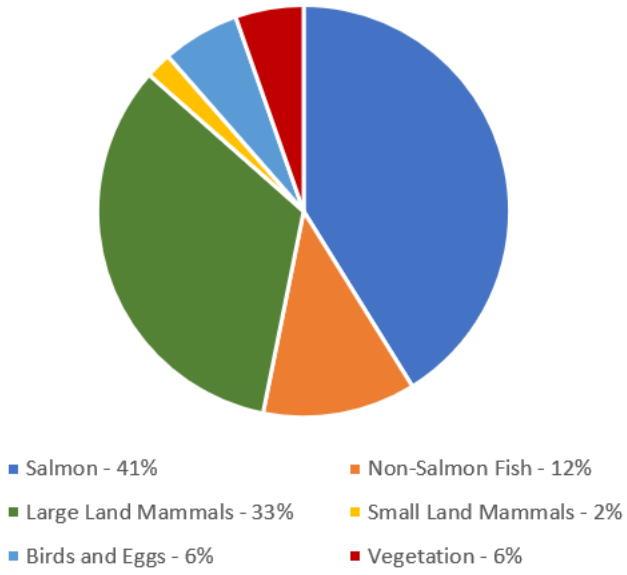
Nenana

Nenana is in Interior Alaska, 55 road miles southwest of Fairbanks on the George Parks Highway. Nenana is on the south bank of the Tanana River, just east of the mouth of the Nenana River. According to the 2010 Census, Nenana had 378 residents. In 2016, the ADFG conducted a study of the harvest and use of subsistence resources in 2015 by Nenana residents (Brown and Kostick 2017) and estimated that the 2015 population of Nenana consisted of 583 individuals living in 243 households; 203 residents were Alaska Natives. The 2018 DCCED certified population of Nenana was 363 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2015 for Nenana was 64,965 pounds, or 111 pounds per capita. In terms of estimated pounds harvested, salmon made up the largest portion of the subsistence harvest, at 41 percent (**Figure Q-13**), which totaled an estimated 26,722 pounds, or 46 pounds per capita. Moose (35 pounds per capita), coho salmon (16 pounds), and Chinook salmon (13 pounds represented the highest harvest amounts in pounds per capita in Nenana, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

Figure Q-13. Composition of Harvest by Category, Nenana



Source: ADFG 2020

There was an average of 267 pounds of wild resources harvested per household (ADFG 2020). Nenana households harvested an average of 5 kinds of resources and used an average of 9. The maximum number of resources used by any household was 41 (Brown and Kostick 2017).

In 2015, 26 percent of households reported harvesting salmon, while 76 percent of households reported using salmon. Salmon harvest totaled 46 pounds per capita. The most harvested salmon species in pounds per capita were chum salmon (25 pounds), coho salmon (16 pounds), and Chinook salmon (8 pounds). Additionally, 37 percent of households reported harvesting non-salmon fish, compared with 65 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 13 pounds per capita. The most harvested non-salmon fish in pounds per capita were whitefish (5 pounds) and grayling (2 pounds) (ADFG 2020).

The harvest of large land mammals totaled 37 pounds per capita. The most harvested large land mammal species in pounds per capita were moose (35 pounds) and caribou (2 pounds). Moose was the most used large land mammal by Nenana households in 2015. They were harvested by 10 percent of households and used by 80 percent, which indicates a high degree of resource sharing (Brown and Kostick 2017). Caribou were the second-most harvested large land mammal in 2015 by household, harvested by 3 percent of households and used by 14 percent.

Nenana households did not report the harvest of any marine mammals; however, 11 percent of households reported receiving and using whales, and 5 percent reported receiving and using seals via sharing networks with friends and families from coastal areas (ADFG 2020).

Nenana households harvested small land mammals primarily for fur in 2015. The harvest of small land mammals (beavers) totaled 2 pounds per capita (ADFG 2020). Beavers were the most widely harvested (9 percent of households) and the most used (14 percent) small mammal by household; snowshoe hares and martens that were also used by 5 percent of households.

There were 43 percent of Nenana households that reported using birds and eggs in 2015, and 36 percent harvested them. The harvest of birds and eggs totaled 7 pounds per capita. The most harvested bird species in pounds per capita were ducks (3 pounds), geese (2 pounds), and grouse (1pound) (ADFG 2020). Grouse (28 percent of households harvested) and ducks (12 percent) were the most harvested birds by Nenana households. Grouse (31 percent of households using) and ducks (18 percent) were also the most used birds by Nenana households. Two percent of Nenana households reported harvesting and using bird eggs, representing less than 1 pound per capita of the 2015 subsistence harvest (ADFG 2020).

In 2015, 63 percent of Nenana households reported harvesting vegetation, and 87 percent of households reported using vegetation. The harvest of vegetation totaled 6 pounds per capita. The most harvested vegetation in pounds per capita was blueberry (3 pounds), lowbush cranberry (1 pounds), highbush cranberry (1 pound), and raspberry (1 pound) (ADFG 2020). Wood was harvested by 52 percent of households and used by 66 percent, mainly for heating homes and smoking fish (Brown and Kostick 2017).

Subsistence Use Areas

In 2015, Nenana residents used search and harvest areas along the Tanana River near Nenana and the Yukon River, upriver of the Dalton Highway and at the Rapids, a historical spot for fish wheels near Rampart; this area is also used by residents of Tanana and Manley Hot Springs (Brown and Kostick 2017). Non-salmon fish were harvested on the Tanana, Nenana, and Teklanika rivers.

Nenana is in GMU 20, at the nexus of GMUs 20A, 20B, and 20C. Residents hunted for large land mammals (primarily moose) along the Tanana and Tolovana Rivers and into the Minto Flats area, as well as along the Parks Highway. Caribou were searched for in areas along the Denali and Steese Highways. Search and harvest areas for small mammals focused on locations close to the community, as well as areas along the Tanana and Kantishna Rivers. Ducks and geese were searched for and harvested by Nenana residents along the Tanana

River into the Minto Flats. The areas used for gathering vegetation in 2015 were found along the Parks highway and along the Nenana River into the Minto Flats.

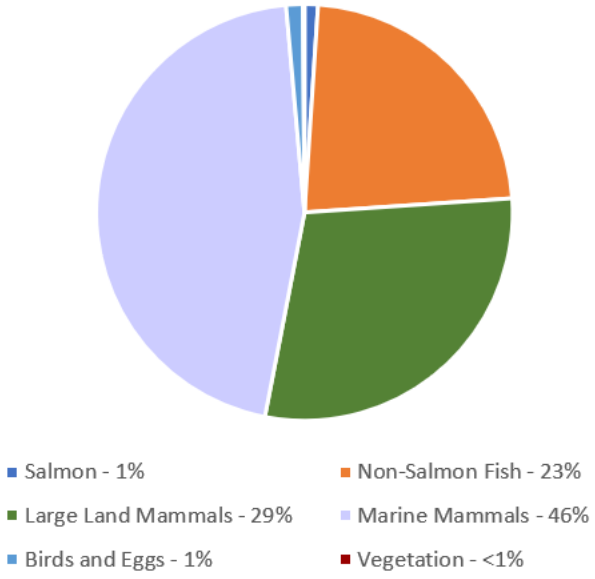
Nuiqsut

Nuiqsut is on the west bank of the Nigliq Channel of the Colville River, about 20 miles inland from the Beaufort Sea coast and approximately 136 miles southeast of Utqiaġvik. The Census recorded 402 residents in Nuiqsut. During the 2014 study year, the ADFG estimated that 415 people resided in Nuiqsut; 96 percent of the population was Alaska Native (Brown et al. 2016). The 2018 DCCED certified population of Nuiqsut was 481 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2014 for Nuiqsut was 371,992 pounds, or 896 pounds per capita. In terms of estimated pounds harvested, marine mammals made up the largest portion of the subsistence harvest at 46 percent (**Figure Q-14**), which totaled an estimated 169,367 pounds, or 408 pounds per capita. Bowhead whale (357 pounds per capita), caribou (253 pounds), and whitefish (189 pounds) represented the highest harvest amounts in pounds per capita in Nuiqsut, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

Figure Q-14. Composition of Harvest by Category, Nuiqsut



Source: ADFG 2020

There was an average of 3,444 pounds of wild resources harvested per household (ADFG 2020). Nuiqsut households harvested an average of 8 kinds of resources and used an average of 13 kinds. The maximum number of resources used by any household was 29 (Brown et al. 2016).

In 2014, 40 percent of households reported harvesting salmon, while 64 percent of households reported using salmon. Salmon harvest totaled 9 pounds per capita. The most harvested salmon species in pounds per capita were chum salmon (8 pounds) and pink salmon (1 pound). Additionally, 70 percent of households reported harvesting non-salmon fish, compared with 93 percent that reported using non-salmon fish. Non-salmon fish

harvest totaled 205 pounds per capita. The most harvested non-salmon fish in pounds per capita were whitefish (189 pounds), char (5 pounds), burbot (4 pounds), and grayling (4 pounds) (ADFG 2020).

The harvest of large land mammals totaled 261 pounds per capita. The most harvested large land mammal species in pounds per capita were caribou (253 pounds) and moose (7 pounds). Caribou was the large land mammal used by the most Nuiqsut households in 2014. Caribou were harvested by 64 percent of households and used by 90 percent. Moose was harvested by 5 percent of Nuiqsut households and used by 43 percent. Dall sheep were not harvested by Nuiqsut households in 2014, but they were used by 5 percent of households (ADFG 2020).

Marine mammals made up 46 percent of Nuiqsut's subsistence harvest in 2014 due to the successful harvest of 5 bowhead whales (Brown et al. 2016). They were harvested by 40 percent of households and were used by 95 percent, which indicates a high degree of resource sharing (Brown et al. 2016). Bowhead whales were the most widely harvested marine mammal (21 percent of households) and the most widely used marine mammal by 93 percent of households. Ringed seals (35 percent of households) and bearded seals (22 percent) were the next most harvested resources; they were used by 67 percent and 52 percent of households, respectively. In 2014, marine mammal harvest totaled 408 pounds per capita. The most harvested marine mammal species in pounds per capita were bowhead whale (357 pounds) and ringed seal (15 pounds) (ADFG 2020).

Nuiqsut households harvested small land mammals solely for fur in 2014 (Brown et al. 2016). Wolverines were the most widely harvested small land mammal (9 percent of households), followed by wolf (7 percent) and fox (5 percent). Both wolves and wolverines were used by 12 percent of Nuiqsut households.

There were 79 percent of Nuiqsut households that reported using birds and eggs in 2014, and 67 percent harvested them, even though they contributed only 1 percent to the total estimated pounds of harvest. The harvest of birds and eggs totaled 12 pounds per capita. The most harvested bird species in pounds per capita were geese (10 pounds) and ducks (1 pound) (ADFG 2020). Geese were harvested by (60 percent) and used by the most households (78 percent). Ducks were the next most harvested (24 percent of households) and used (40 percent) resource by Nuiqsut households. Bird eggs were harvested by 3 percent of households and used by 5 percent of households in 2014, representing less than 1 pound per capita of the subsistence harvest (ADFG 2020). (ADFG 2020).

In 2014, 53 percent of Nuiqsut households reported harvesting vegetation, and 67 percent of households reported using vegetation. The harvest of vegetation totaled 1 pound per capita, consisting primarily of cloudberry (1 pound per capita) and blueberry (less than 1 pound) (ADFG 2020).

Subsistence Use Areas

Marine mammal search and harvest areas for Nuiqsut in 2014 were concentrated in Harrison Bay and an area east of the delta between Prudhoe and Foggy Island Bays in the Beaufort Sea. Nuiqsut households base their whaling activities from Cross Island. Hunters travel to the Beaufort Sea during open water season using the Niglik Channel and other routes through the Colville River Delta (Bacon et al. 2011). Seal hunting search areas also included an area between the Colville and Kuparuk Rivers, near Simpson Lagoon and Jones Islands (Brown et al. 2016). The caribou search and harvest area extended over 150 miles north to south, from the Beaufort Sea coast to the foothills of the Brooks Range. Moose hunting was primarily concentrated along the Colville River for approximately 120 miles, extending beyond Umiat.

Search and harvest areas for small land mammals in 2014 covered the same general area as for large land mammals, extending beyond the Brooks Range foothills and into the mountains near Anaktuvuk Pass, as well as areas in the Titaluk and Kigalik River drainages. Salmon fishing by Nuiqsut households was concentrated along the Nigliq Channel. Non-salmon fish search and harvest were also primarily along the Nigliq Channel, but they were also harvested from other locations along the Colville River. Duck, geese, and bird egg searches and harvests were concentrated in Harrison Bay and the Colville River delta. The lower Colville River corridor was targeted for search and harvest of berries and greens (Brown et al. 2016).

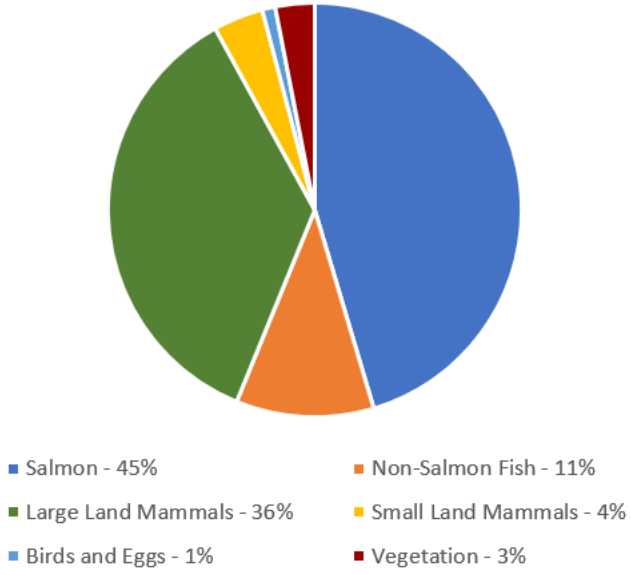
Nulato

Nulato is on the west bank of the Yukon River, 35 miles west of Galena and 310 air miles west of Fairbanks. It lies in the Nulato Hills, across the river from the Innoko National Wildlife Refuge. According to the 2010 Census, Nulato had 264 residents. The 2018 DCCED certified population of Nulato was 206 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2010 for Nulato was 62,140 pounds, or 239 pounds per capita. In terms of estimated pounds harvested, salmon made up the largest portion of the subsistence harvest, at 45 percent (**Figure Q-15**), which totaled an estimated 28,211 pounds, or 108 pounds per capita. Moose (82 pounds per capita), Chinook salmon (72 pounds), chum salmon (19 pounds), and coho salmon (16 pounds) represented the highest harvest amounts in pounds per capita in Nulato, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

Figure Q-15. Composition of Harvest by Category, Nulato



Source: ADFG 2020

There was an average of 688 pounds of wild resources harvested per household (ADFG 2020). Nulato households harvested an average of 8 kinds of resources and used an average of 14 kinds of resources. The maximum number of resources used by any household was 58 (Brown et al. 2015).

In 2010, 74 percent of households reported harvesting salmon, while 90 percent of households reported using salmon. Salmon harvest totaled 108 pounds per capita. The most harvested salmon species in pounds per capita were Chinook salmon (73 pounds), chum salmon (19 pounds), and coho salmon (16 pounds). Additionally, 63 percent of households reported harvesting non-salmon fish, compared with 81 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 26 pounds per capita. The most harvested non-salmon fish in pounds per capita were sheefish (9 pounds), whitefish (5 pounds), and grayling (5 pounds) (ADFG 2020).

The harvest of large land mammals totaled 86 pounds per capita. The most harvested large land mammal species in pounds per capita were moose (82 pounds) and black bear (3 pounds). Moose was the most used subsistence resource and the most used large land mammal by Nulato households in 2010. Moose were harvested by 39 percent of households and used by 89 percent of households, which indicates a high degree of resource sharing (Brown et al. 2015). Black bears were the second-most harvested large land mammal in 2010, harvested by 10 percent of households and used by 17 percent.

Nulato households did not report the harvest of any marine mammals; however, 27 percent of households reported receiving and using seals and beluga whales via sharing networks with friends and families from coastal areas (Brown et al. 2015).

Nulato households harvested small land mammals for both food and for fur in 2010. The harvest of small land mammals totaled 9 pounds per capita. The most harvested small mammal species in terms of pounds per capita were beavers (9 pounds) and snowshoe hare (less than 1 pound) (ADFG 2020). Beavers were the used (35 percent) small mammal by household in Nulato, followed by snowshoe hares (9 percent) and martens (8 percent).

There were 70 percent of Nulato households that reported using birds and eggs in 2010, and 49 percent harvested them, even though they contributed only 1 percent to the total estimated pounds of harvest. The harvest of birds and eggs totaled 2 pounds per capita. The most harvested bird species in pounds per capita were grouse (1 pound) and geese (1 pound) (ADFG 2020). Canada geese (45 percent of households using) and spruce grouse (43 percent) were the most used birds by Nulato households in 2010. One percent of Nulato households reported using eggs; however, all of those were received from other households, and no household attempted to gather eggs (Brown et al. 2015).

In 2010, 81 percent of Nulato households reported harvesting vegetation, and 95 percent of households reported using vegetation. Wood was harvested by 48 percent of households and used by 85 percent of households, mainly for firewood and smoking fish (Brown et al. 2015). The harvest of vegetation totaled 7 pounds per capita. The most harvested vegetation in pounds per capita was blueberry (3 pounds), lowbush cranberry (1 pound), highbush cranberry (1 pound), salmonberry (1 pound), plants, greens and mushrooms (1 pound), and Hudson Bay tea (1 pound) (ADFG 2020).

Subsistence Use Areas

Most subsistence activities for Nulato residents in 2010 focused around the mainstem of the Yukon River and the Koyukuk River to the north of Koyukuk, as well as the lakes and sloughs of the Kaiyuh Flats across the Yukon River from the community. Salmon were harvested along the mainstem of the Yukon River, as far north as Koyukuk and as far south as the northern end of Halfway Island. Non-salmon fish species were harvested primarily in the immediate vicinity of Nulato on the mainstem of the Yukon River and on the Nulato River.

The Kaiyuh Flats has historically been an important location for Nulato subsistence practices, particularly fishing for non-salmon fish species and trapping small land mammal species (Brown et al. 2015). Nulato is in GMU 21D, with search and harvest areas for large land mammals along the Koyukuk River and Kaiyuh Slough. Households also reported hunting and trapping for small land mammals close to the community, on the mainstem and north fork of the Nulato River, and on Mukluk Creek. The Kaiyuh Flats was also a destination for Nulato households to harvest migratory birds, such as geese. Harvest and search areas for grouse and ptarmigan are close to the community and along the Nulato River. Nulato residents often harvested vegetation while participating in other subsistence activities, typically along the Koyukuk River, the Nulato River, and the Kaiyuh Flats.

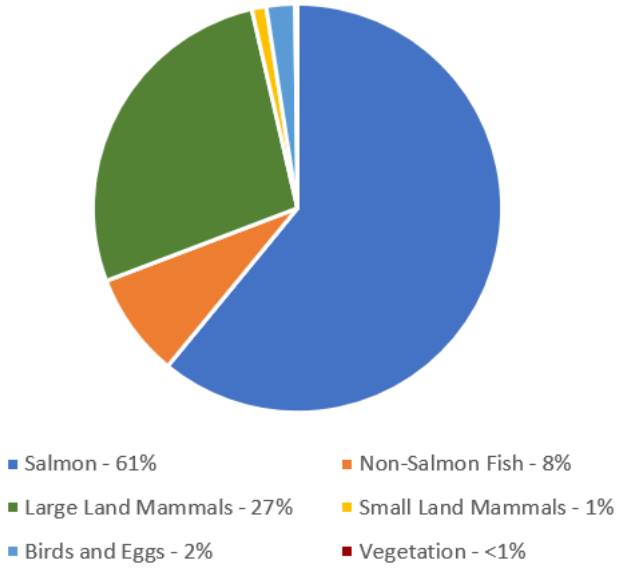
Rampart

Rampart is on the south bank of the Yukon River, approximately 75 miles upstream of its junction with the Tanana River, 100 miles northwest of Fairbanks. Rampart is a predominantly Alaska Native community. According to the 2010 Census, Rampart had 24 residents. In 2015, the ADFG conducted a study of the harvest and use of subsistence resources harvested in 2014 by Rampart residents. The ADFG estimated that the 2014 population of Rampart consisted of 39 individuals, all of whom were Alaska Natives living in 13 households (Brown et al. 2016). The 2018 DCCED certified population of Rampart was 86 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2014 for Rampart was 14,754 pounds, or 378 pounds per capita. In terms of estimated pounds harvested, salmon made up the largest portion of the subsistence harvest, at 61 percent (**Figure Q-16**), which totaled an estimated 8,992 pounds, or 231 pounds per capita. Chum salmon (120 pounds per capita), coho salmon (111 pounds), and moose (102 pounds) represented the highest harvest amounts in pounds per capita in Rampart, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

Figure Q-16. Composition of Harvest by Category, Rampart



Source: ADFG 2020

There was an average of 1,135 pounds of wild resources harvested per household (ADFG 2020). Rampart households harvested an average of 8 kinds of resources and used an average of 11 kinds of resources. The maximum number of resources used by any household was 22 (Brown et al. 2016).

In 2014, 71 percent of households reported harvesting salmon, and 100 percent of households reported using salmon. Salmon harvest totaled 231 pounds per capita. The most harvested salmon species in pounds per capita were chum salmon (120 pounds) and coho salmon (111 pounds). Additionally, 86 percent of households reported harvesting non-salmon fish, and with 100 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 31 pounds per capita. The most harvested non-salmon fish in pounds per capita were whitefish (18 pounds), burbot (6 pounds), sheefish (4 pounds), and grayling (3 pounds) (ADFG 2020). Salmon species provided over twice as much edible weight per capita as large land mammals did (231 pounds versus 103 pounds), which suggests that access to salmon is greater than access to large land mammals (Brown et al. 2016).

Moose was the only large land mammal species harvested in 2014, equating to 103 pounds per capita. Moose were harvested by 57 percent of households and used by 86 percent of households, which indicates a high degree of resource sharing (Brown et al. 2016). There were no other large land mammals harvested by Rampart households; however, caribou was used by 14 percent of Rampart households (ADFG 2020).

Rampart households did not report the harvest of any marine mammals; however, 57 percent of households reported receiving and using seals via sharing networks with friends and families from coastal areas (Brown et al. 2016).

Rampart households harvested small land mammals for both food and for fur in 2014. The harvest of small land mammals totaled 4 pounds per capita. The most harvested small mammal species in terms of pounds per capita were beavers (4 pounds) and snowshoe hare (1 pound) (ADFG 2020). Snowshoe hares and beavers were the most used resources by Rampart households (29 percent), followed by martens (14 percent).

There were 57 percent of Rampart households that reported using birds and eggs in 2014, and 43 percent harvested them, even though they contributed only 2 percent to the total estimated pounds of harvest. The harvest of birds and eggs totaled 9 pounds per capita. The most harvested bird species in pounds per capita were geese (6 pounds), ducks (2 pounds), and grouse (1 pound) (ADFG 2020). Geese (57 percent of households using) were the most used birds by Rampart households, followed by grouse and ducks (43 percent each). No bird eggs gathered during the 2014 study year by Rampart households (ADFG 2020).

In 2014, 29 percent of Rampart households reported harvesting vegetation, and 100 percent of households reported using vegetation. Wood was harvested by 57 percent of households and used by 100 percent of households, mainly for home heating (Brown et al. 2016). The harvest of vegetation totaled 1 pound per capita, consisting primarily of blueberry (ADFG 2020).

Subsistence Use Areas

Search and harvest areas for salmon species during the 2014 study year were in two areas along the Yukon River, most within less than 10 miles of the community stretching from Squaw Creek (1 mile upriver of Rampart) to 5 miles downriver of Rampart. The other area was approximately 1 mile south of the mouth of Little Dall River near Stevens Village (Brown et al. 2016). Non-salmon fish were harvested in the Yukon River along a 2- to 3-mile stretch both upriver and downriver of the community. Fishing also took place in the Yukon River near the community of Stevens Village.

Rampart residents often search for moose as they travel along the Yukon River by boat; however, their search and harvest locations in 2014 covered a broad geographic range, including locations along the Yukon River, near Hess Creek, and near the west fork of the Tolovana River. The area in and around Rampart was used for search and harvest of small land mammals, as was the area around the mouth of Squaw Creek. Likewise, birds, plants, and berries were all searched for in areas close to the community itself. There has been a shift in search and harvest locations closer to Stevens Village for several subsistence resources over the recent years, which could be influenced by strong family connections and friendships between the two communities (Brown et al. 2016).

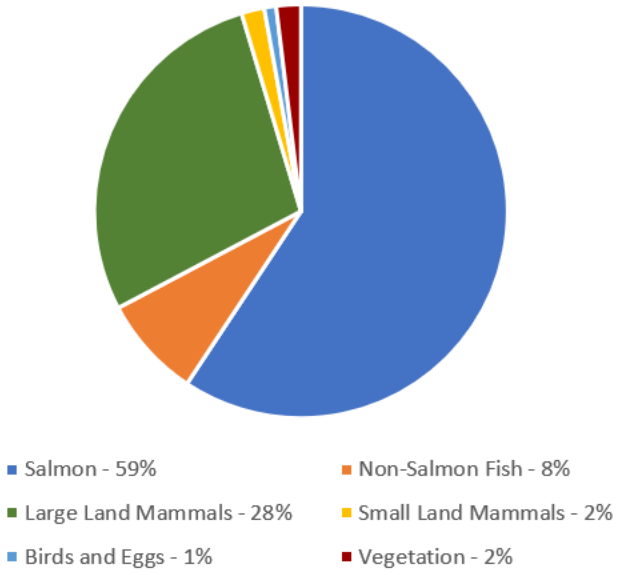
Ruby

Ruby is on the south bank of the Yukon River, in the Kilbuck-Kuskokwim Mountains. It is about 50 air miles east of Galena and 230 air miles west of Fairbanks. Ruby is next to the Nowitna National Wildlife Refuge. The 2010 Census estimated that 166 people lived in Ruby, including an Alaska Native population of 138. The 2018 DCCED certified population of Ruby was 168 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2010 for Ruby was 54,107 pounds, or 301 pounds per capita. In terms of estimated pounds harvested, salmon made up the largest portion of the subsistence harvest, at 59 percent (**Figure Q-17**), which totaled an estimated 32,075 pounds, or 178 pounds per capita. Moose (80 pounds per capita), Chinook salmon (80 pounds), and chum salmon (77 pounds) represented the highest harvest amounts in pounds per capita in Ruby, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

Figure Q-17. Composition of Harvest by Category, Ruby



Source: ADFG 2020

There was an average of 820 pounds of wild resources harvested per household (ADFG 2020). Ruby households harvested an average of 8 kinds of resources and used an average of 11 kinds of resources. The maximum number of resources used by any household was 44 (Brown et al. 2015).

In 2010, 45 percent of households reported harvesting salmon, while 85 percent of households reported using salmon. Salmon harvest totaled 178 pounds per capita. The most harvested salmon species in pounds per capita were Chinook salmon (80 pounds), chum salmon (77 pounds), and coho salmon (21 pounds). Additionally, 45 percent of households reported harvesting non-salmon fish, compared with 79 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 24 pounds per capita. The most harvested non-salmon fish in pounds per capita were whitefish (13 pounds), northern pike (5 pounds), sheefish (4 pounds), and halibut (1 pound) (ADFG 2020).

The harvest of large land mammals totaled 85 pounds per capita in 2010. The most harvested large land mammal species in pounds per capita were moose (80 pounds), caribou (2 pounds), and black bear (2 pounds). Moose was the most used subsistence resource and the most used large land mammal by Ruby households in 2010. Moose were harvested by 36 percent of households and used by 89 percent of households, which indicates a high degree of resource sharing (Brown et al. 2015). Black bears were the second-most harvested large land mammal in 2010, harvested by 6 percent of households and used by 19 percent.

Ruby households did not report the harvest of any marine mammals; however, 2 percent of households reported receiving and using seals via sharing networks with friends and families from coastal areas (Brown et al. 2015).

Ruby households harvested small land mammals for both food and for fur in 2010. The harvest of small land mammals totaled 5 pounds per capita. The most harvested small mammal species in terms of pounds per capita were beavers (5 pounds), hare (less than 1 pound), and mink (less than 1 pound) (ADFG 2020). Martens and beavers were the most used small land mammal by Ruby households (28 percent). Minks, hares, and wolverines were each used by 6 percent of households in Ruby.

There were 60 percent of Ruby households that reported using birds and eggs in 2010, and 43 percent harvested them, even though they contributed only 1 percent to the total estimated pounds of harvest. The harvest of birds and eggs totaled 3 pounds per capita. The most harvested bird species in pounds per capita were grouse (1 pound) and ducks (1 pound) (ADFG 2020). Spruce grouse (49 percent of households using) and ducks (23 percent) were also the most used birds by Ruby households. No bird eggs were gathered during the 2010 study year by Ruby households (ADFG 2020).

In 2010, 87 percent of Ruby households reported harvesting vegetation, and 91 percent of households reported using vegetation. Wood was harvested by 53 percent of households and used by 70 percent of households, mainly for firewood and smoking fish (Brown et al. 2015). The harvest of vegetation totaled 6 pounds per capita. The most harvested vegetation in pounds per capita was blueberry (3 pounds), spruce tips (3 pounds), and lowbush cranberry (1 pound) (ADFG 2020).

Subsistence Use Areas

The subsistence use areas for Ruby residents focused on nearby waterways, primarily the Yukon River, downriver to the mouth of the Yuki River and as far upriver as the Klatsuta River. Salmon and non-salmon fish were typically harvested from the Yukon River; residents also searched for non-salmon fish on Deep Creek. Many residents used the Ruby-Poorman Road as an access route to land south of Ruby to search for moose. Boat travel also allowed residents to access Junekaket Creek, Twin Slough, Big Creek, and the Melozitna River for moose search and harvest areas.

There were two primary areas used for Ruby residents for harvesting small land mammals, one along the Melozitna River and the other along Ruby Slough. The Yukon River, Melozitna River, and the mouth of Ruby

Slough were identified as bird search and harvest areas. Grouse and ptarmigan were searched for along the Ruby-Poorman Road, and along Ruby Slough and the mouth of the Yuki River. The Ruby-Poorman Road, the Kokrines Hills, and along Deep Creek were areas identified for berry and plant harvesting by Ruby households.

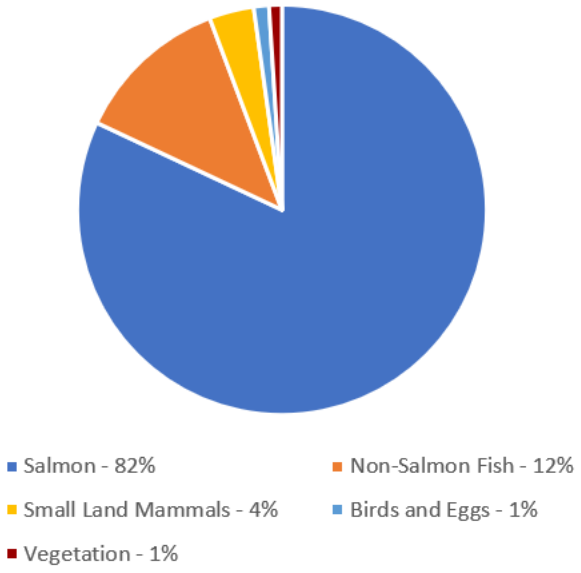
Stevens Village

Stevens Village is a predominantly Koyukon Athabascan community on the north bank of the Yukon River. It is 17 miles upstream of the Dalton Highway bridge across the Yukon River, 46 air miles to the northeast of the community of Rampart, and 90 air miles northwest of Fairbanks. The 2010 Census recorded a population of 78 for Stevens Village. The ADFG estimated that the 2014 population of Stevens Village consisted of 10 individuals, all of whom were Alaska Natives, living in 4 households (Brown et al. 2016). The 2018 DCCED certified population of Stevens Village was 45 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2014 for Stevens Village was 3,748 pounds, or 375 pounds per capita. In terms of estimated pounds harvested, salmon made up the largest portion of the subsistence harvest, at 82 percent (**Figure Q-18**), which totaled an estimated 3,073 pounds, or 307 pounds per capita. Chum salmon (296 pounds per capita), whitefish (31 pounds), and sheefish (13 pounds) represented the highest harvest amounts in pounds per capita in Stevens Village, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

Figure Q-18. Composition of Harvest by Category, Stevens Village



Source: ADFG 2020

There was an average of 937 pounds of wild resources harvested per household (ADFG 2020). Stevens Village households harvested an average of 7 kinds of resources and used an average of 9 kinds of resources. The maximum number of resources used by any household was 15 (Brown et al. 2016).

In 2014, 50 percent of households reported harvesting salmon, and 50 percent of households reported using salmon. Salmon harvest totaled 307 pounds per capita. The most harvested salmon species in pounds per capita were chum salmon (297 pounds) and Chinook salmon (10 pounds). Additionally, 50 percent of households reported harvesting non-salmon fish, and 50 percent reported using non-salmon fish. Non-salmon fish harvest totaled 46 pounds per capita. The most harvested non-salmon fish in pounds per capita were whitefish (31 pounds), sheefish (13 pounds), and northern pike (2 pounds) (ADFG 2020).

Stevens Village households did not report harvesting any large land mammals in 2014; however, 75 percent of households used moose, and 75 percent hunted moose (Brown et al. 2016).

Stevens Village households also did not report the harvest of any marine mammals; however, 25 percent of households reported receiving and using seals via sharing networks with friends and families from coastal areas (Brown et al. 2016).

In 2014, Stevens Village households harvested small land mammals for both food and for fur. The harvest of small land mammals totaled 13 pounds per capita. The most harvested small mammal species in terms of pounds per capita were beaver (8 pounds), muskrat (4 pounds), and snowshoe hare (2 pounds) (ADFG 2020). Muskrats were the most used (75 percent of households) small mammal by Stevens Village households, followed by beavers (50 percent). Snowshoe hares, martens, and wolverines were each used by 25 percent of Stevens Village households.

There were 75 percent of Stevens Village households that reported using birds and eggs in 2014, and 75 percent harvested them, even though they contributed only 1 percent to the total estimated pounds of harvest. The harvest of birds and eggs totaled 5 pounds per capita. The most harvested bird species in pounds per capita were geese (2 pounds), ducks (2 pounds), and grouse (less than 1 pound) (ADFG 2020). Ducks and geese were also both used by 75 percent of households. Grouse were used by 25 percent of Stevens Village households. No bird eggs were gathered during the 2014 study year by Stevens Village households (ADFG 2020).

In 2014, 25 percent of Stevens Village households reported harvesting vegetation, and 75 percent of households reported using vegetation. Wood was harvested by 50 percent of households and used by 75 percent of households, mainly for heating homes and smoking fish (Brown et al. 2016). The harvest of vegetation totaled 4 pounds per capita. The most harvested vegetation in pounds per capita was blueberry (2 pounds), plants, greens, and mushrooms (1 pound), fungus (1 pound), and chaga (1 pound) (ADFG 2020).

Subsistence Use Areas

There were no subsistence use areas identified for the community of Stevens Village during the 2014 survey, due to confidentiality concerns (Brown et al. 2016); however, the Dall River has been noted as an area of great importance to residents in terms of culture and subsistence (Brown et al. 2016).

Tanana

Tanana is in Interior Alaska, approximately 3 miles downstream of the junction of the Tanana and Yukon Rivers and 130 air miles west of Fairbanks. In 2010, the Census counted 246 residents in Tanana. In 2015, the ADFG conducted a study of the harvest and use of subsistence resources in 2014 by Tanana residents. The ADFG estimated that the 2014 population of Tanana consisted of 204 individuals living in 91 households. The 2018 DCCED certified population of Tanana was 204 (DCCED 2020).

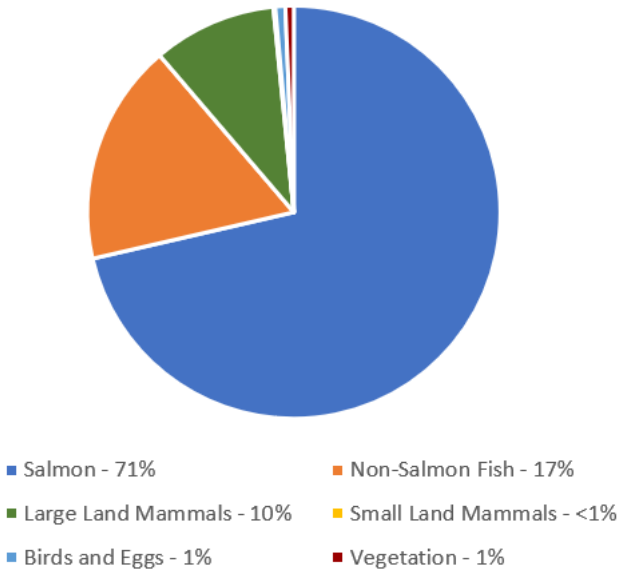
Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2014 for Tanana was 197,715 pounds, or 969 pounds per capita. In terms of estimated pounds harvested, salmon made up the largest portion of the subsistence harvest, at 71 percent (**Figure Q-19**), which totaled an estimated 141,140 pounds, or 692 pounds per capita. Chum salmon (622 pounds per capita), whitefish (113 pounds), and moose (87 pounds) represented the highest harvest amounts in pounds per capita in Tanana, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

There was an average of 2,172 pounds of wild resources harvested per household (ADFG 2020). Tanana households harvested an average of 7 kinds of resources and used an average of 11 kinds of resources. The maximum number of resources used by any household was 40 (Brown et al. 2016).

In 2014, 32 percent of households reported harvesting salmon, while 85 percent of households reported using salmon. Salmon harvest totaled 692 pounds per capita. The most harvested salmon species in pounds per capita were chum salmon (623 pounds), coho salmon (60 pounds), and Chinook salmon (6 pounds). Additionally, 38 percent of households reported harvesting non-salmon fish, compared with 68 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 168 pounds per capita. The most harvested non-salmon fish in pounds per capita were whitefish (114 pounds), sheefish (46 pounds), and northern pike (5 pounds) (ADFG 2020). Salmon species provided approximately seven times as much edible weight per capita as large land mammals did (692 pounds versus 94 pounds, respectively), which suggests that access to salmon is greater than access to land mammals (Brown et al. 2016).

Figure Q-19. Composition of Harvest by Category, Tanana



Source: ADFG 2020

The most harvested large land mammal species in pounds per capita were moose (88 pounds), caribou (3 pounds), and black bear (3 pounds). Moose was the most used subsistence resource and the most used large land mammal by Tanana households in 2010. Moose were harvested by 27 percent of households and used by 86 percent of households, which indicates a high degree of resource sharing (Brown et al. 2016). Black

bears were the second-most harvested large land mammal in 2014, harvested by 6 percent of households and used by 15 percent (ADFG 2020).

Tanana households did not report the harvest of any marine mammals; however, 15 percent of households reported receiving and using seals, walrus, and whale via sharing networks with friends and families from coastal areas (Brown et al. 2016).

Tanana households harvested small land mammals for both food and for fur in 2014. The harvest of small land mammals totaled 1 pound per capita. The most harvested small mammal species in terms of pounds per capita were beaver (1 pound) and snowshoe hare (less than 1 pound) (ADFG 2020). Beavers were the most widely used small land mammal by Tanana households (15 percent), followed by marten (14 percent), and snowshoe hares (12 percent).

There were 64 percent of Tanana households that reported using birds and eggs in 2014, and 50 percent harvested them even though they contributed only 1 percent to the total estimated pounds of harvest. The harvest of birds and eggs totaled 1 pound per capita. The most harvested bird species in pounds per capita were geese (less than 1 pound) and grouse (less than 1 pound) (ADFG 2020). Spruce grouse (30 percent of households harvested) and geese (24 percent) were the most harvested birds by Tanana households. Geese (41 percent of households using) and spruce grouse (33 percent) were also the most used birds by Tanana households. Three percent of households reported harvesting bird eggs, and 5 percent of households reporting using them; bird eggs represented less than 1 pound per capita of the 2014 subsistence harvest (ADFG 2020).

In 2014, 71 percent of Tanana households reported harvesting vegetation, and 94 percent of households reported using vegetation. Wood was harvested by 64 percent of households and used by 89 percent of households, mainly for home heating (Brown et al. 2016). The harvest of vegetation totaled 1 pound per capita, consisting primarily of blueberry (less than 1 pound) and plants, greens, and mushrooms (less than 1 pound) (ADFG 2020).

Subsistence Use Areas

The Tanana subsistence use areas center on the Yukon and Tanana Rivers and smaller tributaries, as well as inland areas to the north and south of the community. Use areas were reported as far west as Ruby, south along the Nowitna River, east beyond Rampart along the Yukon River, and past the Ray Mountains in the north (Brown et al. 2016). Salmon and non-salmon fish were commonly harvested within approximately 4 miles of the community, either up or downstream on the Yukon River. Tanana residents also have a history of fishing for salmon in a narrow stretch of the Yukon River known locally as the Rapids.

Residents also harvest non-salmon fish around the confluence of the Tanana and Yukon Rivers. Search and harvest areas for large land mammals typically cover the Yukon, Tanana, and Nowitna Rivers, as well as an area along the Koyukuk River. Tanana residents also hunt near Fish Lake for moose. They searched and harvested small land mammals, following the Tanana-Allakaket Winter Trail north of the community, near the Tozitna River, and along the Tanana River. Tanana residents searched for birds and eggs primarily north of the community along the Tanana and Yukon Rivers. Vegetation was often harvested in the immediate vicinity of the community; however smaller search areas were also used along the Tanana and Yukon Rivers.

Venetie

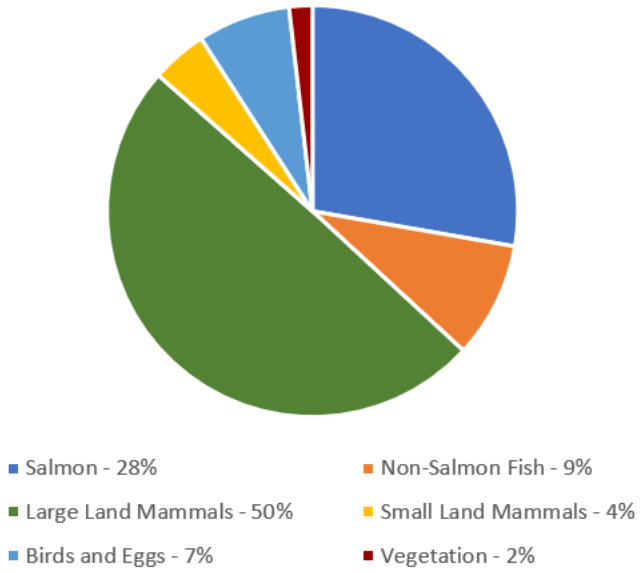
Venetie is on the north side of the Chandalar River, south of Arctic Village and 45 miles northwest of Fort Yukon. Venetie is a traditional community in that it chose not to have an ANCSA corporation; as a result, it

is truly dependent on the land and resources for subsistence. According to the 2010 Census, Venetie had 166 residents. The 2018 DCCED certified population of Venetie was 174 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2009 for Venetie was 74,602 pounds, or 274 pounds per capita. In terms of estimated pounds harvested per household, large land mammals made up the largest portion of the subsistence harvest, at 50 percent (**Figure Q-20**), which totaled an estimated 36,977 pounds, or 136 pounds per capita. Moose (79 pounds per capita), caribou (52 pounds), and chum salmon (46 pounds) represented the highest harvest amounts in pounds per capita in Venetie, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

Figure Q-20. Composition of Harvest by Category, Venetie



Source: 2009 (Kofinas et al. 2016)

In 2009, 32 percent of households reported harvesting salmon, while 76 percent of households reported using salmon. Salmon harvest totaled 76 pounds per capita. The most harvested salmon species in pounds per capita were chum salmon (46 pounds) and Chinook salmon (31 pounds). Additionally, 63 percent of households reported harvesting non-salmon fish, compared with 81 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 25 pounds per capita. The most harvested non-salmon fish in pounds per capita were grayling (18 pounds) and whitefish (7 pounds) (ADFG 2020).

The harvest of large land mammals totaled 136 pounds per capita. The most harvested large land mammal species in pounds per capita were moose (79 pounds), caribou (52 pounds), and black bear (3 pounds). Moose was the most used subsistence resource and the most used large land mammal by Venetie households in 2009. Moose were harvested by 30 percent of households and used by 93 percent of households, which indicates a high degree of resource sharing (Kofinas et al. 2016). Caribou were the second-most harvested large land mammal in 2009, harvested by 14 percent of households and used by 86 percent. Close kinship ties between Venetie and Arctic Village are extremely important and are seen as a source of resiliency: caribou harvested

in Arctic Village are often shared with Venetie, sometimes in exchange for resources, such as salmon, which are less available in Arctic Village (Kofinas et al. 2016).

Venetie households did not report the harvest of any marine mammals; however, 18 percent of households reported receiving and using seals and whale via sharing networks with friends and families from coastal areas (Kofinas et al. 2016).

Venetie households harvested small land mammals for both food and for fur in 2009. The harvest of small land mammals totaled 11 pounds per capita. The most harvested small mammal species in terms of pounds per capita were beaver (5 pounds), snowshoe hare (4 pounds), muskrat (1 pound), and squirrel (1 pound) (ADFG 2020). Snowshoe hares were the most widely used small land mammal by Venetie households (43 percent of households). Beavers were used by 26 percent of households, followed by muskrat (18 percent) and squirrel (17 percent).

There were 81 percent of Venetie households that reported using birds and eggs in 2009, and 58 percent harvested them. The harvest of birds and eggs totaled 21 pounds per capita. The most harvested bird species in pounds per capita were geese (12 pounds) and ducks (8 pounds) (ADFG 2020). Ducks (70 percent of households) and geese (68 percent) were the most used birds by Venetie households. Upland game birds were used by 20 percent of households. There were no households that reported harvesting bird eggs in 2009 (Kofinas et al. 2016).

In 2009, 43 percent of Venetie households reported harvesting vegetation, and 67 percent of households reported using vegetation. The harvest of vegetation totaled 5 pounds per capita. The most harvested vegetation in pounds per capita was blueberry (3 pounds) and lowbush cranberry (2 pounds) (ADFG 2020).

Subsistence Use Areas

Subsistence harvesting by Venetie residents generally occurs on tribal lands surrounding their community, surrounding the Chandalar (including the East and Middle Forks), Yukon, Christian, and Hadweenzic Rivers, and the foothills of the Brooks Range (Van Lanen et al. 2012). Residents often have to travel approximately 60 miles north of the community to search for and harvest caribou; most moose camps are 20 to 80 miles from the community. Residents currently use RS 2477 trails for subsistence access. Venetie residents are concerned that access routes off the Dalton Highway increase competition for subsistence resources from non-local hunters.

Wiseman

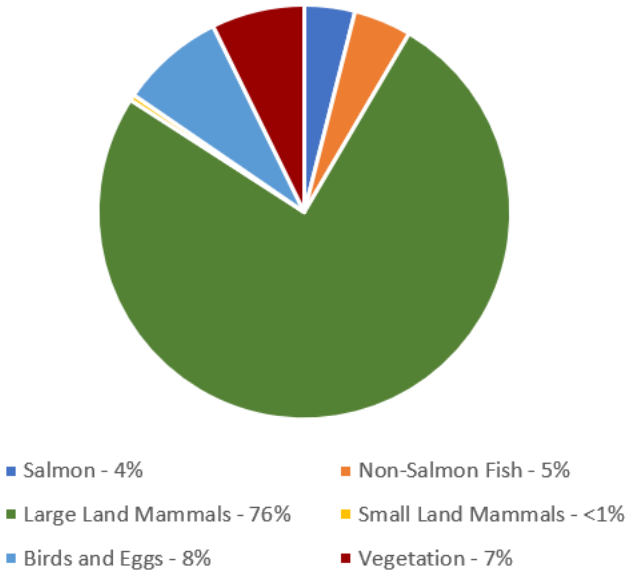
Wiseman is on the middle fork of the Koyukuk River, at the junction of Wiseman Creek in the Brooks Range. It is about 19 miles upstream and northeast of the point at which the Dalton Highway reaches the Koyukuk River and about 8 miles upstream and north of the community of Coldfoot, also along the Koyukuk River. According to the 2010 Census, Wiseman had 14 residents. In 2011, the ADFG recorded a population of 13 individuals, none of whom were Alaska Natives (Holen et al. 2012). The 2018 DCCED certified population of Wiseman was 11 (DCCED 2020).

Subsistence Harvest Patterns

The total estimated harvest for all subsistence resources during 2011 for Wiseman was 3,819 pounds, or 294 pounds per capita. In terms of estimated pounds harvested, large land mammals made up the largest portion of the subsistence harvest at 76 percent (**Figure Q-21**), which totaled 2,888 pounds, or 222 pounds per capita. Moose (166 pounds per capita), caribou (40 pounds), ptarmigan (18 pounds), and Dall sheep (16 pounds)

represented the highest harvest amounts in pounds per capita in Wiseman, based on the estimated pounds per capita of usable weight harvested (ADFG 2020).

Figure Q-21. Composition of Harvest by Category, Wiseman



Source: ADFG 2020

There was an estimated average of 764 pounds of wild resources harvested per household (ADFG 2020). Wiseman households harvested an average of 17 kinds of resources and used an average of 22 kinds of resources. The maximum number of resources used by any household was 37 (Holen et al. 2012). Vegetation (100 percent), non-salmon fish (80 percent), birds and eggs (80 percent), and large land mammals (60 percent) had the highest percentages of households' harvest. Salmon, non-salmon fish, large land mammals, birds and eggs, and vegetation were all used by 100 percent of Wiseman households in 2011. Bearded seals and whales were received from friends and family in Alaska coastal villages by 20 percent of households in 2011 (Holen et al. 2012).

In 2011, 20 percent of households reported harvesting salmon, while 100 percent of households reported using salmon. Salmon harvest totaled 12 pounds per capita, consisting solely of sockeye salmon. Additionally, 80 percent of households reported harvesting non-salmon fish, compared with 100 percent that reported using non-salmon fish. Non-salmon fish harvest totaled 13 pounds per capita. The most harvested non-salmon fish in pounds per capita were grayling (6 pounds), burbot (2 pounds), sucker (2 pounds), char (1 pound), and lake trout (1 pound) (ADFG 2020).

The harvest of large land mammals totaled 222 pounds per capita. The most harvested large land mammal species in pounds per capita were moose (166 pounds), caribou (40 pounds), and Dall sheep (16 pounds). Large land mammals made up 76 percent of the total harvest by weight. In 2011, 60 percent of households successfully harvested large land mammals, and 100 percent of households used large land mammals, primarily moose (100 percent of households using), Dall sheep (80 percent), and caribou (80 percent).

Tanana households harvested small land mammals for both food and for fur in 2011. The harvest of small land mammals totaled 1 pound per capita, consisting entirely of snowshoe hare. The most harvested small

mammal species in terms of pounds per capita were beaver (1 pound) and snowshoe hare (less than 1 pound) (ADFG 2020). Lynx and marten were the most widely used small land mammal by Tanana households, used by 60 percent of households each, followed by fox (40 percent) and snowshoe hare (40 percent).

There were 100 percent of Wiseman households that reported using birds and eggs. The harvest of birds and eggs totaled 24 pounds per capita. The most harvested bird species in pounds per capita were ptarmigan (18 pounds), grouse (3 pounds), and geese (2 pounds) (ADFG 2020). Upland game birds, specifically spruce grouse (80 percent of households harvested) and ptarmigan (80 percent) were the most harvested and most used birds by Wiseman households. No bird eggs were gathered during the 2011 study year (ADFG 2020).

One hundred percent of Wiseman residents reported harvesting and using vegetation. Blueberries (100 percent of households harvested), lowbush cranberries (100 percent), raspberries (80 percent), and wood (80 percent) were harvested by the most Wiseman households. The harvest of vegetation totaled 21 pounds per capita. The most harvested vegetation in pounds per capita was lowbush cranberry (13 pounds), blueberry (5 pounds), and raspberry (3 pounds) (ADFG 2020).

Subsistence Use Areas

Wiseman residents are highly mobile and travel around the area to harvest resources, following cyclic harvest patterns. They typically utilized motorized vehicles, such as highway vehicles and snowmachines to access their subsistence use areas (Holen et al. 2012). Wiseman residents harvest their salmon primarily from the Copper and Yukon Rivers. Non-salmon fish such as Arctic grayling and whitefish are often harvested in the vicinity of Wiseman or Coldfoot, but they have also been harvested from more remote locations, like Bob Johnson and Chandalar Lakes.

Residents use Gates of the Arctic National Park and select areas of GMUs 24A, 26B, and 25A for searching for and hunting large land mammals. Wiseman residents also hunt along the Dalton Highway in the DHCMA (Holen et al. 2012). Under current regulations, hunting in the DHCMA is limited to areas 5 miles from each side of the highway, and the use of motorized vehicles in the area is very limited. Hunters are permitted to use only aircraft, boats, and licensed highway vehicles, on designated roads only. The use of snowmachines in the DHCMA is allowed only for subsistence taking of wildlife by residents living in the DHCMA. The use of firearms for hunting in the DHCMA is also very limited, but Wiseman residents can use firearms for subsistence hunting of large game. Any other harvesting of large land mammals in the DHCMA requires use of a bow and arrow.

During the 2011 study year, hunting areas for moose and Dall sheep mostly followed the DHCMA, north from Wiseman toward Atigun Pass and south from Wiseman past Coldfoot. Chandalar Lake was also used for moose hunting. Dall sheep hunting areas often extend farther north to the Galbraith Lake area and stop around Coldfoot to the south. Caribou hunting areas follow the DHCMA north to Galbraith and Toolik Lakes. Typically, moose and Dall sheep hunting are done on foot in the fall; snowmachines are used to access Gates of the Arctic National Park for hunting moose and caribou in the spring. Most residents trap to the east of the DHCMA.[2]

Small land mammals and furbearers were harvested along the Middle Fork Koyukuk River south of Coldfoot, and the northern-most area extended close to the Dietrich Camp landing strip. There were also areas used for small land mammal harvest, waterfowl, and upland game bird harvest east of Coldfoot toward South Fork

[2]Ute Hicker (planning area resident), and Michelle Ethun (BLM Project Manager), personal communication with Ute Hicker, July 25, 2019.

Flats and another northeast of Wiseman toward Bob Johnson Lake. Wiseman residents also harvested waterfowl, berries, and firewood along the DHCMA in the vicinity of Wiseman. Wiseman residents have expressed concerns over the mounting hunting pressure by non-local hunters on local resources, particularly caribou and Dall sheep (Holen et al. 2012).

Q.6 METHODS OF ANALYSIS

The analysis area for subsistence is the planning area, which includes all or portions of GMUs 26, 25, 24, 22, 21, 20, and 19. Most BLM-managed lands in the planning area are in GMUs 26B, 24, 21, and 20 (see **Map Q-1**). The analysis consists of an evaluation of the BLM management decisions that could affect subsistence resources, such as vegetation, fish, large land mammals, small furbearers, and thereby subsistence harvest practices. This analysis uses mostly qualitative and where possible quantitative information to describe impacts of the proposed management alternatives on subsistence. Professional judgment is used in evaluating effects on subsistence resources.

Nature and Types of Effects

The types of effects on subsistence uses and needs that could result from implementing the resource management plan would be from actions that reduce the abundance of harvestable resources used for subsistence purposes, reduce the availability of resources used for subsistence, or legal or physical limitations on access of subsistence users to harvestable resources, and whether there is a resulting increased competition for subsistence resources. The nature of effects would generally be impacts on subsistence use areas, resource availability, user access, changes in competition (which would impact resource abundance or availability), changes to costs and time associated with subsistence activities, and impacts on the subsistence culture.

Management actions could change the number of acres directly managed by the BLM in the planning area. Lands that are disposed of would no longer be subject to BLM management, removing federal management of those resources. The creation of new withdrawals could have implications on subsistence resource protections in areas that are withdrawn. As discussed in Magdanz et al. (2016, herein incorporated by reference), the development of new roads near or through communities that have previously been remote have historically created adverse impacts on subsistence resource abundance and availability. Adopting best management practices (BMPs) or other stipulations and requirements, such as those related to travel management, are also management actions that affect subsistence. The types of impacts on subsistence that could result from management actions and the indicators used to evaluate them are shown in **Table Q-2**.

The nature and types of potential effects on subsistence is closely tied to potential effects on vegetation communities (**Section 3.2.4** in **Chapter 3**), fish and aquatic species (**Section 3.2.6** in **Chapter 3**), and wildlife (**Section 3.2.7** in **Chapter 3**) resources that are used for subsistence purposes. For additional information, see the discussion of effects in those sections of the environmental impact statement.

Table Q-2
Summary of Potential Impacts on Subsistence from Resource Management Actions

Type of Impacts	Management Actions	Indicators
Direct impact on habitat, indirect impact on availability and abundance of subsistence resources	Water, wildlife, fish, riparian vegetation, and soils	Acres and location of land that would be protected from invasive species or development. Linear feet of stream and acres of land that would be protected from invasive species or development.

Type of Impacts	Management Actions	Indicators
Direct impact on availability and abundance of forestry products for subsistence use	Forestry allocations	Acres of land that would be open or closed to commercial timber harvest.
Direct impacts on access on subsistence resources; indirect impact on availability and abundance of subsistence resources; indirect impacts on resource competition	• Lands with wilderness characteristics management • Wild and scenic rivers (WSRs) • ACECs/RNAs • Wilderness study area lands • Travel and transportation management • Fluid leasable minerals • Locatable minerals • Mineral materials (salable minerals)	Acres and location of land protected from development. Acres and location of land with existing, eligible, or suitable WSRs that would be open or closed to surface occupancy or mineral entry. Acres of and location of land in existing or proposed ACECs that would be open or closed to surface occupancy or mineral entry. Acres of wilderness study areas that would be open or closed to surface occupancy or mineral entry. Acres and location of land that would be restricted or unrestricted to travel or transportation use. Acres and location of land that would be open or closed to travel. Acres and location of area covered by aircraft use restrictions. Acres and location of land with salable mineral potential that would be open, restricted, or closed for salable minerals. Acres and location of land with moderate or high mineral potential that would be open or closed to mineral entry. Acres and location of land with fluid leasable mineral potential that would be open, open with restrictions, or closed to fluid minerals.
Direct impact on availability and abundance of subsistence resources; direct impacts on access to subsistence resources; indirect impacts on resource competition	• Lands and realty • Utility corridors • Development nodes • Permits and ROWs • ROW provisions for wildlife/SWA resources • Leases • Proposed withdrawals • Recommending revocation of withdrawals including PLO 5150 and ANCSA 17(d)(1)	Acres and location of land that would be open, restricted, or closed to surface disturbance. Location of proposed development nodes relative to subsistence resources.

Assumptions

The following assumptions were used to assess impacts on subsistence.

- The BLM will consider Department of the Interior guidance, ADFG and U.S. Fish and Wildlife Service objectives, and Federal Subsistence Management requirements and mandates in decisions related to wildlife and fisheries management.
- As land conveyance to the State of Alaska and ANCSA corporations is finalized, harvesting wildlife resources on State and ANCSA corporation lands will be regulated by general hunting regulations, and federal subsistence regulations would no longer be applicable.
- PLO 5150 will be partially or fully revoked under all action alternatives except for Alternative E. More than half (51 percent) of the lands have been identified by the State as high priority 1 and 2 and will likely be conveyed during the life of the plan. Once conveyed, these lands will no longer be managed by the BLM, and standard operating procedures (SOPs) will no longer apply.
- Tribal members use Native, village corporation, State lands, other federal lands, and BLM-managed lands for traditional subsistence activities and will continue to do so. Subsistence use by federally qualified subsistence users in the planning area will continue on federal public lands. For the purpose of subsistence use, federal public lands are defined in 50 Code of Federal Regulations (CFR) 100, Section 100.4(1) and (2).
- Subsistence harvest patterns and practices follow a seasonal round of harvest and will be expected to change and adapt over the course of the planning period, based on some management decisions and climate change. Analysis is based on the most current rates of harvest data, seasonal round[3] and areas of use, and traditional use areas.
- Management decisions regarding travel management, outfitter guides, illegal harvest, landownership, management, access, and use of ACECs will also be evaluated in an ANILCA Section 810 analysis in the context of how subsistence resources, and harvest practices, including competition for resources, will be affected.
- It is likely that the community subsistence use areas extend beyond what has been documented in studies and is shown in **Map Q-1**; subsistence studies capture only 1-year period and only for a portion of the population. Management actions outside community subsistence use areas are generally less likely to affect subsistence use, compared with actions in these areas; however, effects could occur if outside actions affect access, availability, or abundance of subsistence resources and uses.
- The BLM considered a quantitative impact assessment of nonenergy solid leasables not essential and eliminated it from detailed analysis. No development of nonenergy solid leasables is anticipated in the planning area.

Incomplete or Unavailable Information

There are limited data available documenting subsistence use and places important for subsistence in the planning area. Studies of patterns of use such as seasonal cycles, use areas, and resources harvested have been conducted by ADFG Division of Subsistence and other agencies and organizations. Available data are primarily in technical reports by the ADFG Division of Subsistence, which are a snapshot that may reflect only areas in use when the data were collected or may represent historical use areas. The lack of data for a community does not indicate that subsistence harvests lack importance there. Not all surveys for planning

[3]The seasonal round is the yearly process or cycle by which subsistence users exploit different resources at different times as seasons change, and different resources become available.

area communities were comprehensive; however, all planning area communities do have some sort of subsistence harvest data available.

The discussion of harvest information in the following sections is supplemented by information that is available from recent ADFG technical papers and from publicly available information. Because resource distribution and subsistence use areas change over time, information on subsistence use areas that was gathered during the scoping period, alternatives outreach, and ACEC nominations are important supplements.

Q.7 IMPACTS ANALYSIS

The effects analysis considers the SOPs and BMPs that the BLM could implement, which are included in **Appendix F**. Management actions proposed for the following resources would not affect subsistence and were therefore not analyzed:

- Air quality
- Paleontological resources
- Visual resources
- Hazardous materials and health and human safety
- Special status species

Management actions for resources that may affect subsistence are discussed in the following sections.

Impacts from Water, Fish, and Riparian-Wetland Vegetation Management Decisions on Subsistence

In addition to the management actions common to all the action alternatives, potential impacts from the following management topics were considered:

- Instream flow reservations on high value streams
- Nonnative invasive species (NNIS) plan requirement
- Stream channel design requirements
- Wetland management as ROW avoidance areas
- Timber harvest next to waterbodies
- ACEC designations in watersheds with high aquatic resource values

Impacts under Alternative A (No Action)

Under Alternative A, water needs would be inventoried and federal reserved water rights would be secured where needed to support BLM programs; however, there are no streams identified under Alternative for which instream flow reservations would immediately be secured which could affect fish species used for subsistence. Under Alternative A, wetlands would not be managed as ROW avoidance areas, which could affect wildlife and fish species used as subsistence resources.

Stream reclamation requirements would not be implemented under Alternative A, which could allow impacts on habitat for fish species used for subsistence. Alternative A would prohibit cutting trees within 50 feet of either side of a stream unless the trees are a danger to human safety or are adversely affecting stream flow. This prohibition would protect subsistence resources, including timber and habitat for moose, waterfowl, and fish.

Under Alternative A there would be no measures in place that specifically address NNIS, their introduction and spread is the most likely impact on vegetation communities in the decision area in future management scenarios. NNIS establishment and spread could be caused by surface disturbance activities and transport of seeds by vehicles, such as cars, heavy equipment, snowmachines, boats, and aircraft, and could cause habitat degradation for subsistence species.

Alternative A does not include the requirement for an erosion control plan for all surface-disturbing activities within the 100-year floodplain, it would not result in a total land disturbance of 1 acre or greater, and it would not close the 100-year floodplain of high-value watersheds to fluid mineral leasing and development.

There are also no restrictions on ROW locations under Alternative A, which could cause impacts on subsistence species through wildlife disturbance and displacement. This lack of protection could affect subsistence species, such as fish, beaver, moose, and waterfowl. Alternative A provides no exclusion or avoidance areas along the Dalton Utility Corridor, where development is most likely. Riparian vegetation and waterways along the Dalton Utility Corridor would continue to be susceptible to vegetation removal, changes to channel and floodplain morphology, and water quality impacts.

There would be 27 miles of Anadromous Waters Catalog[4] (AWC)-listed streams, including 12 miles of Pacific salmon habitat (essential fish habitat [EFH]) overlapping areas open to mineral development or in areas with high mineral potential. If resource extraction is permitted near these waterbodies, fish and aquatic species could experience such impacts as habitat degradation or potential injury or mortality.

Impacts Common to All Action Alternatives

Under all the action alternatives subsistence resources would benefit from management actions to protect water, fish, and riparian vegetation. Maintenance of healthy watersheds, riparian areas, and associated fish habitats would support continued harvests of subsistence resources, including fish, terrestrial mammals, and waterfowl. Implementation of BMPs and mitigation measures would also protect aquatic resources and their habitat important to subsistence users.

Subsistence resources and habitat would be protected from invasive species under all action alternatives by requiring project proponents to develop a plan within 1 year of documentation of a NNIS. The plan would be for eradicating or controlling the spread of the invasive species. All action alternatives would prohibit mineral materials disposal within a 160-acre area centered on hot springs. This would provide additional benefits for subsistence resources through habitat protections and decreased opportunities for disturbance and displacement of wildlife species.

Under all the action alternatives the availability and abundance of subsistence fish species would be protected by actions to preserve stream flows. Such flows are necessary to protect fish and wildlife habitat, fish migration, and propagation and to maintain and improve recreational and subsistence fisheries. It would apply to the State of Alaska for instream flow reservations on high value streams in the planning area: Accomplishment Creek, Billy Hawk Creek, Indian River, Kanuti-Kilolitna River, Klikhtentotzna Creek, Prospect Creek, Ray River, Section Creek, Sethkokna River, and Sulukna River.

The areas of greatest concern in the planning area are those where vegetation next to waterbodies would be removed or degraded. Removing riparian vegetation decreases bank stability and leads to bank erosion, excessive sediment in the stream, stream morphology changes, and loss of pools and other wildlife and fishery

[4]The Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes, known as the Anadromous Waters Catalog, is maintained by the Alaska Department of Fish and Game.

habitat features. For fish and aquatic species, the primary potential direct and indirect impacts of management allocation decisions relate to habitat loss and alteration, disturbance and displacement, and injury and mortality. Direct habitat loss would occur in the footprints of any type of development activity. Fill and vegetation clearing for project infrastructure could permanently remove aquatic habitat within these footprints.

Impacts under Alternative B

The proposed management actions under Alternative B would protect the availability and abundance of subsistence resources by protecting habitat important to all wildlife, including fish, moose, beaver, and waterfowl.

Wetlands would be managed as ROW avoidance areas. Alternative B would prohibit surface-disturbing activities in the 160-acre area centered on hot springs, would recommend the area for withdrawal from locatable mineral entry, would close it to fluid mineral leasing and development, would manage it as ROW avoidance, and would prohibit summer off-highway vehicle (OHV) use on it. Increasing surface disturbance restrictions under Alternative B would reduce the nature and type of impacts on subsistence resources discussed under *Impacts Common to All Action Alternatives.*

Additional management actions and stipulations would be applied under Alternative B within the 100-year floodplain and within 0.25 miles of lentic areas to restrict or prohibit surface-disturbing activities. This would protect subsistence resources and habitat in these areas. Timber harvest within 100 feet of a waterbody (subsistence harvest is excluded from this restriction) would also promote the availability and abundance of subsistence resources by protecting habitat important to such wildlife species as fish, moose, beaver, and waterfowl.

There would be 92 miles of AWC-listed streams, including 10 miles of Pacific salmon EFH overlapping areas open to mineral development or in areas with high mineral potential. This would result in greater management protections for fish and aquatic subsistence species and their habitats than under Alternative A. Overall, Alternative B would result in fewer potential impacts on subsistence uses and resources than Alternative A due to impacts from water, fish, and riparian wetlands.

Impacts under Alternative C1

The management actions proposed under Alternative C1 provide similar protections to those discussed under Alternative B; however, Alternative C1 has a greater potential to affect water, fish, and riparian vegetation. This is due to fewer exclusions to surface-disturbing activities in or around streams or waterbodies than Alternative B. The ROW avoidance areas identified under Alternative C1 include portions of the Dalton Utility Corridor north of Coldfoot, which would allow the BLM discretion when approving ROWs. This would minimize impacts on riparian vegetation and habitats important to subsistence resources.

There would be 201 miles of AWC-listed streams, including 33 miles of Pacific salmon EFH overlapping areas open to mineral development or in areas with high mineral potential. This would result in greater management protections to fish and aquatic subsistence species and their habitats than Alternative A. Overall, Alternative C1 would result in fewer potential impacts on subsistence uses and resources than Alternative A due to impacts from water, fish, and riparian wetlands.

Impacts under Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The management actions proposed under Alternative C2 provide similar protections to those discussed under Alternative B and C1; however, Alternative C2 has a greater potential to affect water, fish, and riparian

vegetation. This is due to there being fewer exclusions to surface-disturbing activities in or around streams or waterbodies than Alternative C1.

Under Alternative C2, 156,000 acres of the Venetie Arm would be managed as ROW avoidance to mitigate, impacts on subsistence resources, specifically moose habitat and fish spawning areas. Alternative C2 would not identify any of the Dalton Utility Corridor as ROW avoidance, which would increase the likelihood of surface-disturbing activities in this area. There would be 0 miles of AWC-listed streams overlapping areas open to mineral development or in areas with high mineral potential. This would provide additional protection for fish and aquatic subsistence species and their habitats. Overall, Alternative C2 would result in greater potential impacts on subsistence uses and resources than Alternative A due to impacts from water, fish, and riparian wetlands.

Impacts under Alternative D

The ROW exclusions under Alternative D for floodplains, lentic areas, and high value watersheds would be identical to those under Alternative A. Alternative D would not designate ROW avoidance areas associated with sensitive water resources.

There would be 239 miles of AWC-listed streams, including 40 miles of Pacific salmon EFH overlapping areas open to mineral development or in areas with high mineral potential. This alternative would provide the fewest additional protections for fish and aquatic subsistence species and their habitats of all alternatives. Alternative D proposes the least protection for water, fish, and riparian vegetation than any of the alternatives, which means the least protection for subsistence resources. Overall, Alternative D would result in greater potential impacts on subsistence uses and resources than Alternative A due to impacts from water, fish, and riparian wetlands.

Impacts under Alternative E (Proposed Plan)

The management actions proposed under Alternative E provide similar protections to those discussed under Alternative B. Alternative E, however, has a greater potential to affect water, fish, and riparian vegetation because it has fewer exclusions for surface-disturbing activities in or around streams or waterbodies than Alternative B. The areas managed as ROW avoidance would allow the BLM discretion when approving ROWs, minimizing impacts on riparian vegetation and habitats important to subsistence resources.

There would be 215 miles of AWC-listed streams open to locatable mineral entry, including 24 miles of Pacific salmon EFH overlapping areas with high mineral potential. This would result in fewer management protections to fish and aquatic subsistence species and their habitats than under Alternative A. Overall, Alternative E would result in greater potential impacts on subsistence uses and resources than Alternative A due to impacts from water, fish, and riparian wetlands.

Impacts from Vegetation Communities Management Decisions on Subsistence

In addition to the management actions common to all the action alternatives, potential impacts from the following management topic were considered:

- Restoration—Uplands, non-riparian
- ROWs—Avoidance
- Surface-disturbing activities—Reclamation standards

Most of the decision area is characterized by upland vegetation communities, so these vegetation communities are open to the highest proportion of potential impacts across the landscape. Sensitive and rare plant

communities, such as pingos, bluffs, and special status plant habitat, may be affected to a greater extent from even minor disturbances. This is due to their small-scale locations, reduced recovery abilities, and small prevalence in the region, compared with widespread and abundant vegetation communities.

Potential impacts on vegetation communities in the decision area include direct loss or degradation of vegetated areas, including habitat for special status species; changes in plant community diversity and structure; and introduction and spread of NNIS. Direct impacts would result from surface disturbances or removal of vegetation. Indirect impacts could include modification of vegetation communities through dust accumulation, erosion, soil compaction, hazardous material spills, hydrology modification, water quality changes, permafrost dynamics, grazing animal population alterations, and NNIS spread or introduction.

Impacts under Alternative A (No Action)

Alternative A provides some protection for floodplains, wetlands, riparian areas, and caribou habitat. It provides guidance for sustainable yield of forest resources, which would benefit vegetation communities that are important for subsistence resources. Alternative A does not have management direction specific to reclamation of surface-disturbing activities for vegetation.

There would be no management actions to specifically address the introduction and spread of NNIS. This could be caused by surface-disturbing activities and transport of seeds by vehicles, ROW development and maintenance, and new accessibility into remote areas. Without management protections in place, there is a higher potential that NNIS species could affect the health and abundance of subsistence resources.

There would be no restrictions on ROW location for alpine vegetation, lichen, or pingos under Alternative A, which are important caribou habitat areas. This lack of protection could cause impacts from the loss of habitat and resource availability in these areas.

Impacts Common to All Action Alternatives

Most current infestations of invasive plants in the decision area are in the Dalton Utility Corridor. The predicted increase in traffic along the Dalton Highway is expected to contribute to the spread of invasive plants under all alternatives. Increased surface-disturbing activities, particularly in more remote portions of the decision area, would result in new areas becoming accessible to NNIS. This could change the plant community species composition and affect subsistence harvest practices.

All action alternatives identify vegetation management actions that would benefit subsistence resources by ensuring that habitats support healthy, productive, and diverse populations of native plants and animals. Actions to minimize the footprint of BLM-permitted surface-disturbing activities, to limit the magnitude or duration of impacts, and to preserve native vegetation would benefit subsistence users and use areas in the development areas. This would come about by their potentially reducing associated habitat loss and fragmentation.

All action alternatives would be subject to the same reclamation standards for surface-disturbing activities. This would protect subsistence uses and resources by limiting disturbance, displacement, and direct impacts on subsistence species and habitats.

Impacts under Alternative B

Under Alternative B, the natural revegetation of upland disturbed sites would be required unless it could be demonstrated that it is unlikely to be successful or it would not meet resource objectives. This would benefit subsistence harvest practices by maintaining natural plant species composition when possible. The

management of alpine vegetation, lichen, and pingos as ROW avoidance areas would help maintain the distribution and abundance of subsistence resources and habitat in the planning area.

Impacts under Alternative C1

Under Alternative C1 protections related to revegetation of upland disturbed sites would be the same as those discussed under Alternative B; however, lichen and alpine vegetation ecosystems, which are important caribou habitat, would not be managed as ROW avoidance. This could cause impacts from loss of subsistence habitat and resource availability in these areas. Pingos would be managed as ROW avoidance areas.

Impacts under Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The revegetation of upland disturbed sites under Alternative C2 would focus on rapid revegetation methods, such as seeding with native vegetation or importing topsoil. The pingo cluster south of Lake Todatonten and next to Kanuti Hot Springs would be managed as ROW avoidance; there would be no other unique vegetation ecosystems managed as ROW avoidance under Alternative C2. As discussed under Alternative C1, the lack of management protections for sensitive lichen and alpine vegetation ecosystems under Alternative C2 could cause impacts from the loss of subsistence habitat and resource availability in these areas.

Impacts under Alternative D

Under Alternative D, there would be no restrictions on ROWs in unique vegetation ecosystems; impacts would be the same as discussed under Alternative A. Rapid revegetation methods, such as seeding with natural vegetation or importing topsoil, would be allowed, which would be more protective of natural plant species composition than under Alternative A.

Impacts under Alternative E (Proposed Plan)

Under Alternative E, protections related to revegetation of upland disturbed sites would be identical to those discussed under Alternative C2. As discussed under Alternative C1, the lack of management protections for sensitive lichen and alpine vegetation ecosystems under Alternative E could cause impacts from the loss of subsistence habitat and resource availability in these areas. Impacts from managing the pingo cluster south of Lake Todatonten and next to Kanuti Hot Springs as ROW avoidance would be identical to those discussed under Alternative C2.

Impacts from Wildlife Management Decisions on Subsistence

In addition to the management actions common to all the action alternatives, potential impacts from the management of caribou and Dall sheep were considered as they relate to subsistence resources; however, as discussed below, all action alternatives would designate moose, caribou, Dall sheep, and beaver as priority species.

Impacts under Alternative A (No Action)

Under Alternative A and all action alternatives, the land management allocations that are most likely to negatively affect wildlife are locatable mineral allocations, ROW allocations, and mineral materials allocations. Development activities associated with locatable minerals include ROWs, which would include associated mineral materials disposal; therefore, these activities are linked, and impacts on wildlife would be cumulative.

For all wildlife resources, the primary direct and indirect impacts of development allowed by management allocation decisions are habitat loss and alteration, physiological or behavioral disturbances (including those resulting in habitat avoidance or displacement), attraction of some species, particularly, scavengers and predators, to human activity or to structures, and direct mortality and injury from such events as vehicle and

tower strikes, contaminant exposure, and increased hunter access. See **Section 3.2.7** in **Chapter 3** for additional discussion of impacts on priority wildlife species.

For locatable minerals, ROWs, and mineral materials, direct impacts on wildlife habitats would occur in the footprint of disturbance, whether excavations, tailings and waste rock storage sites, roads, or fill or surface disturbance; indirect impacts on habitat would occur at varying distances and would result from fugitive dust, gravel spray, thermokarsting, snow drifting, impoundment, and altered drainage patterns. Wildlife could be disturbed and displaced over a larger area, depending on the source of disturbance and the different behavioral reactions of the wildlife (Monda et al. 1994; Livezey et al. 2016). Forest product harvesting, such as logging, can destroy habitat for some species, but over time it can create additional forage for some species, such as moose.

Activities that disturb or displace wildlife may be from road and air traffic, noise, light, and human presence. The behavior of wildlife can vary from temporary alert reactions and concealment to flush, flight, and escape or long-term abandonment of an area (Reimers and Colman 2006; Uher-Koch et al. 2015; Stien and Ims 2015).

Predators and scavenger species could be attracted to sites with human activity, which could decrease productivity and increase mortality of nesting birds. Changes in hunter and trapper access and the distribution of trapping activity could have impacts on game species; however, changes to Federal Subsistence Management regulations are predominantly driven by proposals submitted by individuals and not government agencies, so adjustments to hunter access or harvest would be user driven.

Potential changes in access could limit or make access to areas currently used for subsistence more difficult, or new roads or trails could make access easier for non-local hunters and trappers, which would increase competition for subsistence resources. Exposure to contaminants from accidental releases could directly affect wildlife, contaminate habitat, or lead to concerns over the health of subsistence resources.

Under Alternative A, the BLM would continue to follow all laws, regulations, and policies that pertain predominantly to subsistence wildlife. The BLM would consider impacts on subsistence wildlife when evaluating actions in the planning area that could affect them. It would implement mitigation as needed on a case-by-case basis. Under Alternative A, the BLM would consider caribou and moose in its management of resource uses although no specific management actions are identified. There would not be a requirement for BLM-authorized projects to incorporate design features to mitigate impacts on wildlife or wildlife habitat. As a result, Alternative A is not as protective of subsistence species as the other alternatives.

Impacts Common to All Action Alternatives

Under all action alternatives, management of wildlife resources and mitigation of impacts on wildlife would benefit subsistence users. This would come about by maintaining ecosystem functions and the quantity and quality of habitat to support healthy populations of wildlife. All action alternatives would designate moose, caribou, Dall sheep, and beaver as priority species.

BLM-authorized projects would be required to incorporate design features or stipulations to mitigate impacts on wildlife, their habitat, and their movement, including collocating land-disturbing activities. BLM management actions would maintain high value habitats and would allow for unimpeded wildlife movement on the landscape. This would come about by using effective mitigation measures and BMPs to protect wildlife and its habitat, while fulfilling the multiple use sustained yield mandate on BLM-managed lands.

Additionally, BMPs and SOPs to protect fish and wildlife and other natural resources would help reduce long-term impacts on their habitats in the planning area. Specifically, these actions would minimize mineral

development and extraction in stream and river channels, deltas, wetlands, riparian zones, active floodplains, lakes, and habitat essential to local fish and wildlife populations. This would help prevent impacts on associated fish and wildlife that are subsistence resources. BMPs and SOPs would also include measures to minimize degradation of these habitats and expedite reclamation of disturbed areas. These measures would help reduce the level of impact on wildlife habitats in areas that remain open to locatable and salable mineral development.

Dall sheep. All the action alternatives would require maintaining effective separation between domestic animals and Dall sheep. Domestic sheep and goats are prohibited in Dall sheep habitat. To minimize the potential for disease transmission to wildlife, applications for the use of pack animals will be reviewed on a project-specific basis. Dall sheep are an important subsistence resource in the Central Brooks Range (GMUs 24A and 26B) (see **Map Q-1**), especially for the communities in the vicinity of the Dalton Highway. These protections would benefit subsistence users of Dall sheep by reducing the risks to the species' health.

Under all action alternatives, the nature and type of impacts on Dall sheep would be as described under Alternative A for wildlife in general. Similar to Alternative A, SOPs for Dall sheep would reduce or minimize impacts of some activities on Dall sheep. This would come about by implementing low-profile road and facility designs and ROW avoidance and traffic controls, by clustering facilities as close together as possible, and by locating worker camps outside of identified Dall sheep habitat areas (DSHAs).

Caribou. Under all action alternatives, the nature and type of impacts on caribou would be as described for wildlife under Alternative A (see **Section 3.2.7** in **Chapter 3**).

Moose. Under all action alternatives, the nature and type of impacts on caribou would be as described for wildlife under Alternative A (see **Section 3.2.7** in **Chapter 3**).

Beaver. Under all action alternatives, the direct and indirect impacts on beaver would be as described under Alternative A, but they would vary according to the activities allowed (see **Section 3.2.7** in **Chapter 3**). Because of their close association with waterbodies, beavers would be affected by direct and indirect habitat loss. This includes degradation of water quality from surface-disturbing activities within any floodplain, from such activities as placer mining, that may occur in waterbodies and wetlands.

Impacts under Alternative B

The impacts under Alternative B from wildlife management actions on subsistence resources would be those described under *Impacts Common to All Action Alternatives*.

Impacts under Alternative C1

Under Alternative C1, no ACECs would be designated for caribou or for Dall sheep habitat protection; however, the Ray Mountains Herd (RMH) and Galena Mountain Herd (GMH) ranges would be managed as core caribou habitat (see **Map 2.1** in **Appendix A**). Aircraft operators would be required to maintain an altitude of 2,000 feet above ground level, and landings would be prohibited over core caribou ranges from May 1 to June 30. Alternative C1 would designate 100 percent of the GMH range and 48.1 percent of the Hodzana Hills Herd (HHH) range as ROW avoidance areas; 51.6 percent of the HHH range would be open to ROW development. All the RMH would be recommended for closure to mining, but all the GMH range and 92.8 percent of the HHH range would be open to locatable mineral entry.

The RMH core caribou range would be closed to fluid mineral leasing and development. It also would be closed by withdrawal from locatable mineral entry and closed to mineral material disposal. It would be designated as a ROW avoidance area. Subsistence hunters who rely on RMH routinely travel greater than 70

miles across the Kanuti Flats to hunt caribou in the spring, particularly when moose harvest is low and when the Western Arctic Herd is not accessible from the villages.

Mineral potential and the occurrence of rare earth elements is high in the Ray Mountains, and many of the lands within the range of the RMH are top-filed by the State of Alaska (9,000 acres of Priority 1 and 4,000 acres of Priority 2). The recommended revocation of a withdrawal would lead to conveyance of the Priority 1 lands, opening them to potential development. Changes in landownership resulting from revocation of withdrawals could change the applicability of Federal subsistence hunting and trapping regulations for land parcels. The change to State of Alaska ownership could impact the RHM through changes in the timing or level of hunting and trapping activity on those parcels. There is a large block of State mining claims in Spooky Valley and along the Kilolitna and Big Salt Rivers that will likely be developed once conveyance is completed. Impacts on caribou from rare earth element mines (large open pit mines) would be difficult to mitigate, and it is likely that they would simply be displaced where extensive development occurs. Lands that remain federally managed after conveyance would be critical to maintain for continued use by the RMH.

Under Alternative C1, protections through management actions for wildlife that are important subsistence resources would be of slightly lower magnitude and smaller geographic extent than those under Alternative B; however, it would include areas important for the RMH. Alternative C1 provides additional limits on development on BLM-managed land for the RMH, compared with Alternative A. Impacts on moose under Alternative C1 would largely depend on the location of development and shifts in distribution of sport hunters. Beavers and bird species would experience disturbance or displacement impacts associated with a larger number of riparian habitats open to locatable minerals under Alternative C1, compared with Alternative A.

Alternative C1 removes the five ACECs designated for Dall sheep under Alternative A but replaces them with protections for DSHA, Dall sheep movement corridors (DSMC), and Dall sheep study areas (DSSA). Restrictions on activities include those on seasonal noise and helicopters, no surface occupancy (NSO) on fluid mineral leases, areas closed to new mineral material disposal, restriction or avoidance areas for new ROWs, and removal of infrastructure that is no longer in use. Overall, these targeted restrictions would reduce potential Dall sheep disturbance and displacement and preserve DSHA and DSMC, compared with Alternative A.

Impacts under Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

Under Alternative C2, the GMH and RMH ranges would be managed as core caribou ranges (see **Map 2.1** in **Appendix A**), as described for Alternative C1. Aircraft operators would be required to maintain an altitude of 2,000 feet above ground level, and landings would be prohibited in core caribou ranges from May 1 to June 30. Core caribou ranges would be closed for mineral material disposal and would be designated as ROW avoidance, but they would be open to fluid mineral leasing; however, under Alternative C2, the RMH would not be provided with additional protections from surface-disturbing activities, as discussed under Alternative C1.

Alternative C2 would remove the five ACECs designated with Dall sheep as a key resource under Alternative A, and there would be no requisite plan of operations required for surface-disturbing activities. Alternative C2 also would not provide the new protections to DSHA, DSMC, or DSSA that are required under Alternative C1. Loss of these protections for Dall sheep could negatively affect important habitat areas and increase the potential for disturbance and displacement under this alternative more than under Alternative A.

Under Alternative C2, 156,000 acres of the Venetie Arm (1 percent of the decision area) would be managed as ROW avoidance. This would be done to mitigate impacts on subsistence resources, specifically moose habitat and fish spawning areas.

Overall, the impacts under Alternative C2 from wildlife management actions on subsistence resources would be like those described under Alternative C1 but with decreased direct protections for the RMH, similar to Alternative A. This would in turn affect subsistence users of this herd, and there would be decreased protections for Dall sheep. The additional protections to subsistence habitat in the Venetie Arm would also reduce potential impacts on subsistence resources from surface-disturbing activities.

Impacts under Alternative D

Under Alternative D there would be no new land use designations to protect caribou and Dall sheep. Alternative D would be less protective of these subsistence species and their habitat than Alternative A.

Impacts on caribou under Alternative D would be similar to those described for Alternative C2, but the core ranges for the GMH and RMH would no longer have ROW avoidance, and they would no longer be closed to mineral materials disposal, similar to Alternative A.

Alternative D would result in impacts on Dall sheep like those described for Alternative C2. Loss of important habitat and potential disturbance of Dall sheep from development could increase with their displacement from important mineral licks and movement corridors. This could have subsequent impacts on productivity or survival.

Impacts under Alternative E (Proposed Plan)

Under Alternative E, the GMH and RMH ranges would be managed as core caribou ranges (see **Map 2.1** in **Appendix A**) similar as described under Alternative C1. Both the GMH and RMH ranges would be designated as ROW avoidance, the GMH range would be closed for mineral material disposal, the RMH range would be closed fluid mineral leasing. However, under Alternative E, no core caribou ranges would be recommended for withdrawal from locatable mineral entry.

Alternative E would maintain the five ACECs designated with Dall sheep as a key resource under Alternative A, requiring a plan of operations for surface-disturbing activities. Alternative E also would designate DSHA as under Alternative C1, though it would not designate DSMC or DSSA. Increased acreage in the five ACECs designated with Dall sheep as a key resource compared to allocations under Alternative A could positively affect important habitat areas and decrease the potential for disturbance and displacement under Alternative E more than under Alternative A.

Under Alternative E, impacts on subsistence from managing 156,000 acres of the Venetie Arm as ROW avoidance (less than 1 percent of the decision area) would be identical to those under Alternative C2. This would be done to mitigate impacts on subsistence resources, specifically moose habitat and fish spawning areas.

Overall, the impacts under Alternative E from wildlife management actions on subsistence resources would be similar to those described under Alternative C1, but with some decreased protections from mineral development afforded to caribou and Dall Sheep, similar to Alternative C2. This would in turn affect subsistence users of these animals. The additional protections to subsistence habitat in the Venetie Arm, identical to that under Alternative C2, would reduce potential impacts on subsistence resources from surface-disturbing activities.

Impacts from Lands with Wilderness Characteristics Management Decisions on Subsistence

In addition to the management actions common to all the action alternatives, the BLM considered the potential impacts from the following management topics:

- Acres managed to protect wilderness characteristics as a priority over multiple uses
- Acres managed to emphasize multiple uses, while applying management restrictions to reduce impacts on wilderness characteristics
- Acres managed to emphasize other multiple uses as a priority over protecting wilderness characteristics

The categories of managing lands with wilderness characteristics would be more or less protective of subsistence resources; that is, protecting wilderness character as a priority would be most protective of subsistence uses, and emphasizing other multiple uses as a priority would be the least protective. This is because maintaining areas of more than 5,000 contiguous acres for wilderness characteristics also makes these acres beneficial habitat for subsistence resources, such as caribou, moose, and Dall sheep.

The BLM considers several subsistence activities specified in ANILCA to be compatible with lands with wilderness characteristics in Alaska: the use of public cabins and shelters, snowmachine use with adequate snow cover, airplane use and primitive landing areas, motorboat use, and building temporary structures for hunting, fishing, or trapping.

Impacts under Alternative A (No Action)

Under Alternative A, all lands with wilderness characteristics in the planning area would be managed to emphasize other uses. This would create impacts on subsistence wildlife species habitat and increase potential impacts on subsistence users through abundance and availability of resources.

Impacts Common to All Action Alternatives

Under all action alternatives, on lands managed to protect wilderness characteristics as a priority over other multiple uses, the BLM would retain lands unencumbered by State and Native selections and those not conveyed under the Alaskan Statehood Act and ANCSA in federal ownership.

On lands managed to protect wilderness characteristics as a priority over other multiple uses, the following management actions would be applied; these actions would provide protections for subsistence uses and resources through decreased levels of disturbance of subsistence species, decreased opportunities for user conflicts, and protection of subsistence species habitat:

- Visual Resource Management Class I
- ROW exclusion areas
- Closed to construction of new all-season roads
- Closed to commercial timber development and non-subsistence collection of live vegetation (subsistence use still requires a permit), except on ROWs
- Closed to mineral material disposal
- Closed to fluid mineral leasing
- Recommended to the Secretary of the Interior withdrawal from locatable mineral entry

Vegetation treatments and prescribed fire would be allowed to maintain or improve naturalness in the long term. Prescribed fire would be emphasized over mechanical treatment.

Impacts under Alternative B

Under Alternative B, 14,000 acres (less than 1 percent) of community subsistence use areas of the decision area would be managed to protect wilderness characteristics as a priority resource. There would be 1,867,000 acres (43 percent) of community subsistence use areas of the decision area managed to emphasize other multiple uses, while applying management restrictions to reduce impacts on wilderness characteristics. Additionally, 2,416,000 acres (56 percent) of community subsistence use areas of the decision area would be managed to emphasize other multiple uses as a priority over protecting wilderness characteristics.

Through these management actions for lands with wilderness characteristics, Alternative B would be more protective of subsistence uses and resources than Alternative A. It would do this by decreasing the potential for disturbing subsistence species and opportunities for user conflicts and by protecting subsistence species habitat.

Impacts under Alternative C1

There would be no lands managed to protect wilderness characteristics as a priority over other multiple uses under Alternative C1. There would be 104,000 acres (2 percent) of community subsistence use areas of the decision area managed to emphasize other multiple uses, while applying management restrictions to reduce impacts on wilderness characteristics. Wilderness characteristics would be protected through overlapping management restrictions for other resources.

A total of 4,193,000 acres (98 percent) of community subsistence use areas of the decision area would be managed to emphasize other multiple uses. Emphasizing other multiple uses can diminish wilderness characteristics and in turn affect subsistence uses and resources. This would come about by increasing the potential for disturbing subsistence species and opportunities for user conflicts and by providing fewer protections for subsistence species habitat. Alternative C1 would provide more protections for subsistence resources than Alternative A, but it would provide fewer protections than Alternative B.

Impacts under Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The impacts under Alternative C2 would be the same as those described under Alternative A.

Impacts under Alternative D

The impacts under Alternative D would be the same as those described under Alternative A.

Impacts under Alternative E (Proposed Plan)

The impacts under Alternative E would be the same as those described under Alternative A.

Impacts from Forestry Management Decisions on Subsistence

In addition to the management actions common to all action alternatives, the BLM considered the potential impacts from areas open or closed to commercial harvesting of forest products. Removing both living and dead forest products from the decision area can reduce the components of wildlife physical habitat for subsistence resources and remove such food sources as berries, seeds, and lichens. The magnitude and extent of the impact on subsistence resources would depend on the amount of habitat that was removed and the availability of these habitat components in nearby areas.

Impacts under Alternative A (No Action)

Under Alternative A, all 4,406,000 acres (100 percent) of community subsistence use areas of the decision area would be open to commercial harvest of forest and woodland products. Commercial harvest is limited but could increase with increasing demand. Subsistence harvest would continue to be common in areas around communities. Forests and woodlands over the entire planning area would continue to be open to personal use and subsistence woodland harvest, except in crucial wildlife habitat and RNAs. Timber may be harvested on subsistence study/exchange withdrawals under a subsistence or personal use permit.

Under current management, impacts on subsistence would be limited to areas where forest and woodland products are being removed and where wildlife habitat important to subsistence use would be protected.

Additional protections for fish and wildlife habitat under Alternative A include implementing the provisions in the Alaska Forest Practices Act (Alaska Statute 41.17), requiring stream buffers (50 feet) in the utility corridor, and not disturbing vegetation within 300 feet of the Jim River. Cutting trees within 50 feet of either side of a stream would be prohibited unless the trees are a danger to human safety or are adversely affecting stream flow. These actions would protect subsistence uses. This is because they would protect wildlife habitat and increase the availability and abundance of forest products for subsistence use. Access to subsistence use areas would continue to follow current practices under Alternative A.

Impacts Common to All Action Alternatives

Under all the action alternatives, management actions and BMPs and SOPs (**Appendix F**) would include requiring harvests to be in compliance with the State Forest Practices Act BMPs, Alaska Statute 41.17.119: Minimum Riparian Standards For Other Public Land, and any other applicable regulations established by the State Forester, pursuant to Alaska Statute 41.17.115. Commercial harvesters within the 100-year floodplain must demonstrate that they would meet aquatic, riparian, and floodplain objectives. Cutting green timber would be prohibited within 300 feet of a highway or public road. If monitoring indicates any intensive firewood use areas where demand may exceed supply, then the BLM would develop a forestry activity management plan.

Impacts under Alternative B

Management decisions that limit or prohibit timber harvest to protect other resources would be increased under Alternative B, compared with Alternative A. Under Alternative B, commercial timber harvest and non-subsistence collecting of live vegetation would be prohibited on 1,112,000 acres (25 percent) of community subsistence use areas of the decision area, the largest area of all the alternatives. The prohibition would reduce any competition between subsistence and commercial users in the identified areas. The closest communities to lands where non-subsistence collection of live vegetation is prohibited are Bettles, Venetie, Hughes, Wiseman, and Coldfoot; however, it is possible that subsistence users from other communities could frequent these areas as well. Subsistence use would still require a permit.

Impacts under Alternative C1

Under Alternative C1, commercial timber harvest and non-subsistence collecting of live vegetation would be prohibited on 391,000 acres (9 percent) of community subsistence use areas of the decision area. The prohibition would reduce competition between subsistence and commercial users in these areas. Under Alternative C1, access to subsistence harvest of timber and woody vegetation may be affected by a prohibition on timber and woody vegetation harvesting in the Sukapak/Snowden Mountain ACEC. Exceptions would be allowed for transportation and utility corridors and federal administrative sites. Even though Alternative C1 provides more protections to subsistence users through prohibitions on more acres than Alternative A,

Alternative C2 lacks the additional streambank protections afforded by Alternative A that protect wildlife habitat and the availability of forest products for subsistence use.

Impacts under Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

Under Alternative C2, commercial harvest of forest and woodland products would be prohibited on 271,000 acres (6 percent) of community subsistence use areas in the decision area. This is 6 percent more than under Alternative A. The alternative also lacks the additional streambank protections afforded by Alternative A, so it would provide fewer protections for fish and other subsistence resources than Alternative A.

Impacts under Alternative D

Impacts under Alternative D would be the same as those under Alternative C2.

Impacts under Alternative E (Proposed Plan)

Impacts under Alternative E would be the same as those under Alternative C2.

Impacts from Energy and Mineral Management Decisions on Subsistence

In addition to management actions common to all action alternatives, the BLM considered the potential impacts from the following:

- Locatable mineral withdrawals
- Areas closed to salable minerals
- Areas open and closed to mineral material leasing
- Areas open, closed, and NSO for fluid leasable minerals

Impacts under Alternative A (No Action)

Under Alternative A, 1,298,000 acres (29 percent) of the community subsistence use areas of the decision area would be withdrawn from locatable minerals, including metalliferous minerals. A total of 1,371,000 acres (31 percent) of the community subsistence use areas of the decision area would continue to be open to metalliferous minerals locating and would be closed to non-metalliferous minerals locating. Under this alternative, an additional 4,000 acres (0.09 percent) of community subsistence use areas of the decision area would be recommended for withdrawal from locatable mineral entry.

There are 21,000 acres (2 percent) of community subsistence use areas in the decision area that correspond to high mineral development potential and that would be open to locatable mineral entry under Alternative A. Of these, 19,000 acres are selected lands that fall under Priority 1 classification and 1,000 acres are selected lands that fall under Priority 2 classification. These lands would be segregated from mineral potential until they are conveyed, relinquished, or rejected, and they are expected to be conveyed within 10 years of a record of decision.

Casual use is limited to areas listed in Dalton Highway Recreation Area Management Plan, and mitigation is required for all activities that may accelerate soil erosion.

Impacts on subsistence resources could occur if there is the following:

- Temporary displacement in areas
- Temporary and long-term loss of habitat
- Degradation of habitat
- Direct mortality of small mammals or nestlings and brooding birds

There may be reduced or constrained access to use areas and to users and an increased competition for the resources from nonresidents. BMPs and SOPs would reduce these potential impacts and would minimize the those on subsistence users. There would also be specific mitigation measures to reduce the impact-causing actions.

The BLM-managed lands potentially affected by locatable mineral development under Alternative A are primarily upland low and tall shrub and upland mesic spruce forest (**Appendix O**); therefore, subsistence species using those habitats would be primarily affected; however, the areas with high potential for locatable minerals that are open to locatable entry contain 13 percent alpine dwarf shrub tundra. This suggests that subsistence wildlife species in tundra habitats, such as Dall sheep, could also be affected.

Locatable mineral development could result in habitat loss, degradation, and habitat fragmentation of caribou herds, as well as displacement and disturbance. Most of the areas with medium to high locatable mineral potential are in the vicinity of Wiseman and Coldfoot.

Alternative A would include the highest number of acres in community subsistence use areas of the decision area that would be either withdrawn from locatable mineral entry or recommended for withdrawal.

Under Alternative A, 4,399,000 acres (over 99 percent) of the community subsistence use areas of the decision area would continue to be open to salable mineral material sales; 7,000 acres (less than 1 percent) in the community subsistence use areas of the decision area would continue to be closed to mineral material sales.

A total of 7,000 acres (less than 1 percent) of community subsistence use areas in the decision area would be closed to fluid mineral leasing, and 3,995,000 acres (91 percent) would be withdrawn. A total of 404,000 acres (9 percent) of community subsistence use areas in the decision area would be open to fluid leasable minerals. Several areas of high fluid leasable potential north of Anaktuvuk Pass would continue to be withdrawn from fluid leasable entry and development under this alternative. This would protect subsistence resources in this area from impacts associated with surface-disturbing activities, as discussed under *Impacts Common to All Action Alternatives*.

Under Alternative A, NSO stipulations would apply to the inner corridor, eight identified mineral licks, and the Ivishak River and Kanuti Hot Springs ACECs. They would also apply to streams closed to mineral location, which are the floodplains of the Jim River and Prospect Creek downstream of the eastern boundary of the inner corridor and the Kanuti River downstream of the western boundary of the inner corridor. Rodo River, Kateel River, South Fork Huslia River, Ray River, and the three tributaries of Squaw Creek (northwest of Rampart) would be subject to a 300-foot NSO setback along either side of the water. This would provide additional protections for subsistence resources in these areas.

Impacts Common to All Action Alternatives

Locatable and salable minerals management impacts fish and wildlife that are important to subsistence. This is because developing mineral sites results in a loss of wildlife habitat, there is the potential for loss of subsistence access, and there are generally long-term surface disturbance, noise, and human activity at these sites for as long as they remain open and active. Associated access roads may result in loss and fragmentation of fish and wildlife habitat. Energy and mineral activities may cause local degradation of important fish and wildlife habitat through contamination of air quality, water, and soil.

Salable minerals and material disposal could have direct and indirect impacts on subsistence resources and harvest areas. Mineral activity could also affect access and increase competition for use of resources that are important to subsistence. Impacts on subsistence from salable minerals may be low under the action

alternatives. This is because there are sufficient material sources that have already been identified that can meet the needs of the communities, and there are few mineral materials disposal actions anticipated. BMPs and SOPs would minimize the potential impacts on subsistence users. Salable mineral extraction would be prioritized along the utility corridor, where there are existing or previous salable mineral authorizations, and potential areas would be identified that could be used to meet future needs of mineral materials along the Utility Corridor, where existing authorizations do not exist.

Activities associated with fluid leasable minerals could affect fish, wildlife, and vegetation that is important to subsistence resources and users through habitat loss and degradation and disturbance of resources. Exploration could harm small mammals and nesting birds and could temporarily displace larger mammals, such as caribou and moose, which are an important subsistence resource. Since there is a low development potential for fluid leasable mineral resources in the decision area, impacts on subsistence resources and users is likely to be low, although demand could change.

Impacts under Alternative B

Under Alternative B, 4,100,000 acres (93 percent) of community subsistence use areas in the decision area would be open to location of metalliferous minerals and open to location of non-metalliferous minerals. 34,000 acres of high potential locatable minerals would be open to locatable mineral entry under Alternative B; however, 30,000 acres of high potential areas are segregated from locatable mineral entry and could be transferred to State ownership under this alternative.

A total of 206,000 acres (5 percent) of the community subsistence use areas in the decision area would continue to be withdrawn from locatable minerals, including metalliferous minerals, per ANCSA PLOs and PLO 5150 (Dalton Utility Corridor). Under Alternative B, an additional 99,000 acres (2 percent) of community subsistence use areas in the decision area would be recommended for withdrawal from locatable mineral entry.

There would be 34,000 acres (2 percent) of high potential locatable minerals open to locatable mineral entry in community subsistence use areas under Alternative B. Selected lands would become available for locatable mineral entry when those lands are conveyed, relinquished, or rejected. Of these, 29,000 acres are State of Alaska Priority 1 and 2 lands that are likely to be conveyed and would leave federal management within 10 years of a record of decision. Some areas of medium locatable mineral potential north of Tanana would not be withdrawn from mineral entry under this alternative, which could affect subsistence uses and resources in the area through surface disturbance and potential changes to subsistence access.

Alternative B would identify more acres of community subsistence use areas in the decision area as open to locatable mineral entry than Alternative A, and fewer acres would be withdrawn or recommended for withdrawal from locatable mineral entry than under Alternative A. The nature and type of negative impacts on subsistence resources described under *Impacts Common to All Action Alternatives* would occur over a larger geographic area than under Alternative A.

Under Alternative B, 2,697,000 (61 percent) of the community subsistence use areas in the decision area would be open to mineral material sales, and 1,709,000 acres (39 percent) of them would be closed to mineral material sales. The protections for subsistence access and resources resulting from acres closed to mineral material development are greater under Alternative B than under Alternative A.

Under Alternative B, 626,000 acres (12 percent) of community subsistence use areas in the decision area would be closed to fluid mineral leasing, and 1,988,000 acres (38 percent) would be withdrawn. A total of

1,791,000 acres (34 percent) of these areas in the decision area would be open to fluid leasable minerals, and 868,000 acres (16 percent) would be open to fluid minerals, subject to NSO.

In the high potential fluid leasable area north of Anaktuvuk Pass, several river corridors would be closed to fluid mineral leasing and development. This would protect subsistence resources from potential impacts associated with these activities; however, the current demand for fluid leasable minerals is low in these areas.

Compared with Alternative A, the area that is open to locatable mineral entry and mineral materials would decrease under Alternative B for all sheep habitat, DSHA, DSMC, and DSSA. The percentage open to mineral ROWs deceases for DSHA, DSMC, and DSSA. The higher level of protection for the DSHA would decrease impacts, relative to Alternative A.

For the GMH and RMH, Alternative B would increase the area open to locatable minerals, but it would decrease the area open to mineral materials and ROWs, compared with Alternative A. This would reduce impacts from mineral materials mining (habitat disturbance and displacement) and ROW developments (habitat fragmentation and not creating new access for hunting). For the HHH, Alternative B would decrease the area open to locatable minerals, fluid minerals, mineral materials, and ROWs, compared with Alternative A. This would reduce potential impacts associated with these types of development on the HHH caribou.

Impacts under Alternative C1

Under Alternative C1, 4,189,000 (95 percent) of the community subsistence use areas in the decision area would be open to location of metalliferous minerals and open to location of non-metalliferous minerals; this is more acreage than under Alternative A. There would be 34,000 acres (0.05 percent) of high potential locatable minerals open to locatable mineral entry in community subsistence use areas under Alternative C1; however, 30,000 acres of high potential areas are segregated from locatable mineral entry and could be transferred to State ownership. All of this is selected lands that would become available for locatable mineral entry when those lands are conveyed, relinquished, or rejected. Of these lands, 29,000 acres are State of Alaska Priority 1 and 2 lands that are likely to be conveyed and would leave federal management within 10 years of a record of decision.

A total of 206,000 acres (5 percent) of the community subsistence use areas in the decision area would continue to be withdrawn from locatable minerals, including metalliferous minerals, per ANCSA PLOs and PLO 5150 (Dalton Utility Corridor); this is less acreage than under Alternative A. An additional 10,000 acres (less than 1 percent) of community subsistence use areas in the decision area would be recommended for withdrawal from locatable mineral entry; this is also less acreage than recommended under Alternative A.

As discussed under Alternative B, there would be areas of medium locatable mineral potential north of Tanana that would not be withdrawn from mineral entry under Alternative C1. This could affect subsistence uses and resources in the area as a result of mineral activities. Sheep Creek and the South Fork Koyukuk would also be recommended for withdrawal as recreational (casual use) areas. The nature and type of negative impacts on subsistence resources described under *Impacts Common to All Action Alternatives* would occur over a larger geographic area than under Alternative A.

Under Alternative C1, 3,777,000 acres (86 percent) of the community subsistence use areas in the decision area would be open to mineral material sales, and 629,000 acres (14 percent) would be closed to mineral material sales. Alternative C1 would close a larger geographic area to mineral material sales than Alternative A, providing additional beneficial impacts on subsistence resources and users by limiting surface-disturbing activities.

Under Alternative C1, the area designated as open to fluid mineral leasing, subject to NSO (262,000 acres, 5 percent), and closed to leasing (82,000 acres,2 percent) in the community subsistence use areas of the decision area would be greater than Alternative A. The acreage in these areas open to fluid leasable minerals (2,336,000 acres, 45 percent) would be 1,932,000 acres more than under Alternative A; the area withdrawn (1,988,000acres, 38 percent) would be smaller than under Alternative A. Additionally, under Alternative C1 there would be 551,000 acres (11 percent) designated as open to fluid leasable mineral development, subject to controlled surface use.

More areas would be segregated from locatable mineral entry, compared with Alternative A, but non-segregated land in the DSHA would be withdrawn or recommended for closure to mineral entry. Overall, these targeted restrictions should reduce potential Dall sheep disturbance and displacement and preserve use of DSHA and DSMC, compared with Alternative A.

Alternative C1 manages the GMH and the RMH as core caribou ranges. The RMH range would be closed to fluid mineral leasing and withdrawn from locatable mineral entry and closed to mineral material disposal.

Impacts under Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

Under Alternative C2, 4,389,000 acres (99 percent) of the community subsistence use areas of the decision area would be open to location of metalliferous minerals and open to location of non-metalliferous minerals; this is more acreage than under Alternative A. There would be 0 acres recommended for locatable mineral withdrawal and 146,000 acres would remain withdrawn.

The BLM-managed lands around Coldfoot and Wiseman contain the greatest concentrations of areas with medium to high locatable mineral potential; the abundance, availability, and access to subsistence users and resources could be affected by mineral development through disturbance, displacement, changes to subsistence access, and competition for resources. There would be 36,000 acres (2 percent) of high potential locatable minerals open to locatable mineral entry under Alternative C2. All of this is selected lands that would become available for locatable mineral entry when those lands are conveyed, relinquished, or rejected. Of these, 31,000 acres of these lands are State of Alaska Priority 1 and 2 lands that are likely to be conveyed and would leave federal management within 10 years of a record of decision.

Under Alternative C2, 4,007,000 acres (91 percent) of the community subsistence use areas of the decision area would be open to mineral material sales, and 399,000 acres (9 percent) would be closed to mineral material sales.

While fluid mineral potential in most of the decision area is low to very low, under Alternative C2 2,606,000 acres (59 percent) of the community subsistence use areas of the decision area would be open to fluid mineral leasing.

Alternative C2 would not protect DSHA, DSMC, or DSSA, as would Alternative C1. Alternative C2 would recommend full revocation of PLO 5150 lands. It would not withdraw DSHA from mineral entry or provide NSO designations for fluid mineral leases; no stipulations on mineral materials extraction, plans of operation for surface-disturbing activities, or aircraft height restrictions would be included. Loss of important habitat and potential disturbance of Dall sheep from these activities could increase with the potential for displacement from important mineral licks and movement corridors; there could be impacts on productivity or survival, but the degree would depend on the location and type of activity.

The GMH and RMH ranges would be managed as core caribou ranges under Alternative C2. These ranges would be provided some protections through timing limitations and aircraft height restrictions; however,

Alternative C2 would affect a greater area of caribou ranges through the increased areas available for potential surface disturbance and development. Specifically, additional development under Alternative C2 could further lower the probability of maintaining a viable GMH population. Alternative C2 would make more area available for locatable mineral entry and fluid mineral leasing as compared with Alternative A, which could decrease the availability or abundance of caribou for subsistence use.

Impacts under Alternative D

Alternative D emphasizes management to facilitate resource development more than the other alternatives. Under Alternative D, the entire 4,389,000 acres (100 percent) of the community subsistence use areas in the decision area would be open to locatable minerals, fluid leasable minerals, and mineral material sales. No areas would recommended for withdrawal from locatable mineral entry and 146,000 acres would remain withdrawn. The BLM-managed lands around Coldfoot and Wiseman contain the greatest concentrations of areas with medium to high locatable mineral potential; the abundance, availability, and access to subsistence users and resources could be affected by mineral development through disturbance, displacement, changes to subsistence access, and competition for resources.

There would be 36,000 acres (2 percent) of high potential locatable minerals open to locatable mineral entry under Alternative D. All of this is selected lands that would become available for locatable mineral entry when those lands are conveyed, relinquished, or rejected. Of these, 31,000 acres are State of Alaska Priority 1 and 2 lands that are likely to be conveyed and would leave federal management within 10 years of a record of decision.

Under Alternative D, 4,406,000 acres (100 percent) of the community subsistence use areas of the decision area would be open to mineral material sales, and no community subsistence use areas would be closed to mineral material sales.

Under Alternative D, 2,606,000 acres (59 percent) of the community subsistence use areas of the decision area would be open to fluid mineral leasing.

Alternative D would result in impacts on Dall sheep like those described for Alternative C2. Loss of important habitat and potential disturbance of Dall sheep from development could increase with the displacement from important mineral licks and movement corridors. This could have subsequent impacts on productivity or survival. Impacts on caribou would be like those described under Alternative C2; however, the core ranges for the GMH and RMH would no longer have ROW avoidance or be closed to mineral materials disposal, which is similar to Alternative A.

With all community subsistence use areas in the decision area open to these development activities that may affect subsistence users, the potential for impacts on subsistence resources would be highest under this alternative.

Impacts under Alternative E (Proposed Plan)

Under Alternative E, 1,298,000 acres (29 percent) of the community subsistence use areas of the decision area would be withdrawn from locatable minerals, including metalliferous minerals. A total of 3,109,000 acres (71 percent) of the community subsistence use areas of the decision area would continue to be open to metalliferous minerals locating. Under this alternative, no areas would be recommended for a new withdrawal from locatable mineral entry. Under Alternative E, 20,000 acres (2 percent) of community subsistence use areas of high potential for locatable minerals would be open to locatable mineral entry, about the same as under Alternative A.

Under Alternative E, 20,000 acres (2 percent) of community subsistence use areas of high potential open to locatable mineral entry are selected lands Priority 1 and 2 that would become available for locatable mineral entry only when those lands are conveyed, relinquished, or rejected. The 80,000 acres of community subsistence use areas with medium locatable mineral potential would not be withdrawn from mineral entry under this alternative but they would be segregated by selection.

Alternative E would identify more acres of community subsistence use areas in the decision area as open to locatable mineral entry than Alternative A. The same amount of acres would be withdrawn (1,298,000) as Alternative E; however, there are no acres recommended for withdrawal from locatable mineral entry under Alternative E. The nature and type of negative impacts on subsistence resources described under *Impacts Common to All Action Alternatives* would occur over a larger geographic area than under Alternative A.

Under Alternative E, 4,090,000 acres (93 percent) of the community subsistence use areas in the decision area would be open to mineral material sales, and 316,000 acres (7 percent) of them would be closed to mineral material sales. The protections for subsistence access and resources resulting from acres closed to mineral material development are greater under Alternative E than under Alternative A.

Under Alternative E, 19,000 acres (less than 1 percent) of community subsistence use areas in the decision area would be closed to fluid mineral leasing, and 3,995,000 acres (91 percent) would be withdrawn. A total of 392,000 acres (9 percent) would be open to fluid leasable minerals, 3,000 acres (less than 1 percent) of which would be subject to NSO.

Compared with Alternative A, the area that is open to locatable mineral entry and mineral materials would decrease under Alternative E for all sheep habitat; DSHA, DSMC, and DSSA. The percentage open to ROWs is the same or less compared to Alternative A. The higher level of protection for the important DSHA would decrease impacts relative to Alternative A.

For the GMH and RMH, Alternative E would decrease the area open to locatable minerals, mineral materials sales, and ROWs compared with Alternative A. This would reduce impacts from mineral development (habitat disturbance and displacement) and ROW development (habitat fragmentation and not creating new access for hunting). For the HHH, Alternative E would decrease the area open to locatable minerals, mineral materials, and ROWs compared with Alternative A. This would reduce potential impacts associated with these types of development on the HHH caribou compared to Alternative A.

Impacts from Lands and Realty and Utility Corridor Management Decisions on Subsistence

In addition to the management actions common to all the action alternatives, potential impacts from the following management topics were considered:

- Land use authorizations and ROW exclusion or avoidance designations
- Recommended revocation of withdrawals, including PLO 5150 and ANCSA 17(d)(1)
- Utility corridors

Potential impacts on subsistence resources from lands and realty management (new rights-of-ways or new land use authorizations) would include habitat loss, fragmentation, and degradation; disturbance of or direct mortality to resources; loss of species diversity from ROW development and other permitted facilities; and changes in ownership that might result in different standards for managing subsistence resources. Concerns were raised during scoping regarding the impacts of linear ROWs on caribou movement. While the Dalton

Highway and Dalton Utility Corridor bisect the range of the HHH, these caribou cross the road, Trans-Alaska Pipeline System, and other linear features yearly and do not appear to be restricted in their movements. It appears standard stipulations regarding linear infrastructure sufficiently mitigate impacts on caribou movement.

Land use authorizations such as permits and leases are often associated with human uses that increase human presence. This may increase stress on wildlife resources during breeding, migration, and wintering periods, and potentially interfere with subsistence harvest activities. Land acquisitions could benefit fish, wildlife, and vegetation that are subsistence resources. This would come about by increasing the acres of wildlife habitat in the planning area, including sensitive or key habitats, and by creating more contiguous blocks of habitat for management. Conversely, land disposals would reduce the amount of habitat for subsistence resources under BLM management. Land withdrawals could benefit subsistence fish, wildlife, and vegetation if the BLM closed BLM-managed lands to activities with the potential to affect species and their habitat.

Impacts under Alternative A (No Action)

Under Alternative A, all 4,406,000 acres (100 percent) of community subsistence use areas in the decision area would be open to ROWs with standard restrictions; 0 acres would be designated as avoidance or exclusions areas.

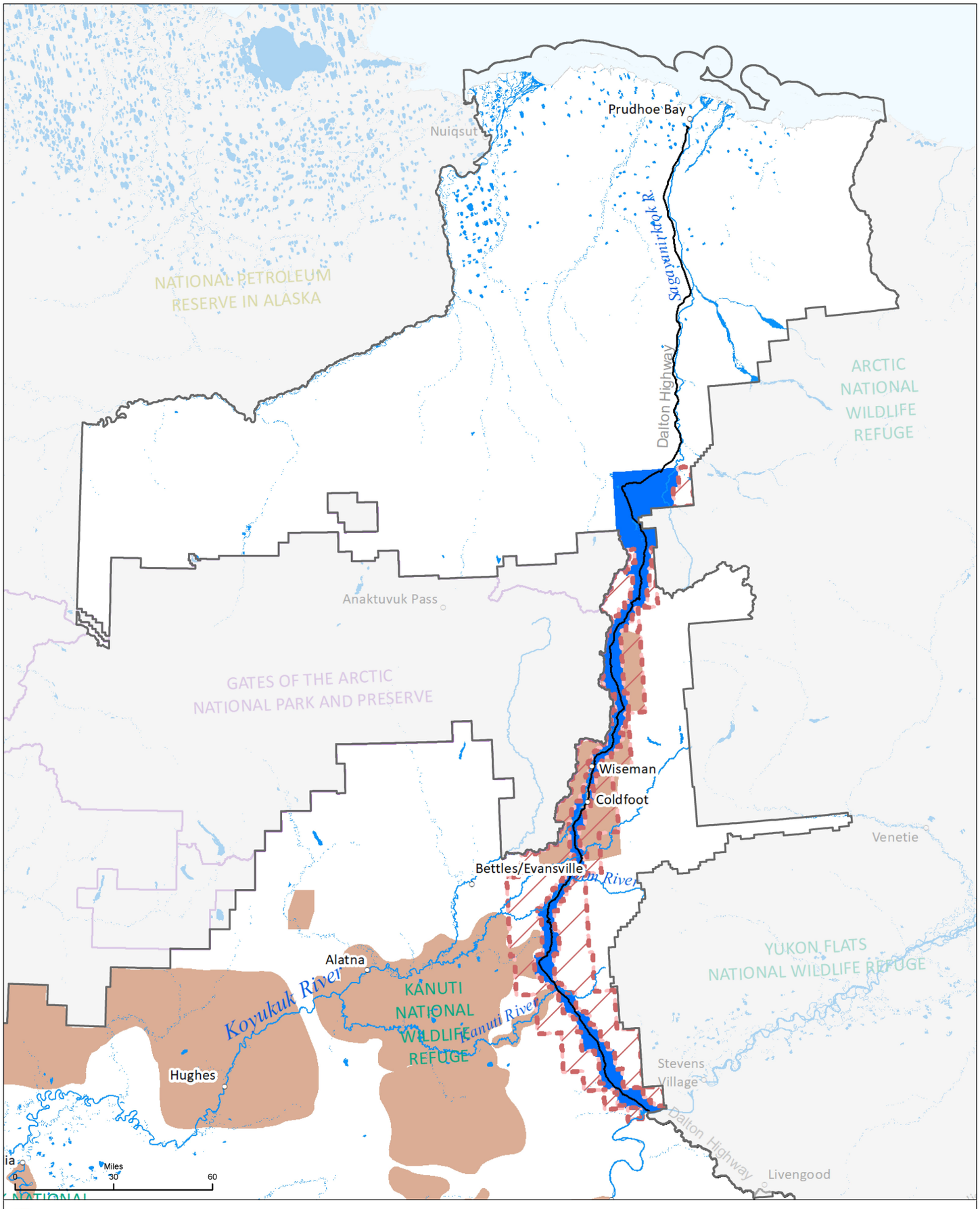
Subsistence management under Alternative A on the 4,395,000 acres (over 99 percent) of community subsistence use areas that overlap with PLOs in the decision area would remain the same.

Under Alternative A, the PLO 5150 withdrawal that designates the inner and outer utility corridors and the segregation from ANCSA corporation selection would remain in place. In addition, the inner corridor would remain segregated from all forms of mineral entry. As a result, there would be no change in the management of wildlife or anadromous waters within the Dalton Utility Corridor in terms of their availability for mineral development under Alternative A. Of the 4,406,000 acres of community subsistence use areas in the decision area, 651,000 acres (15 percent) fall within PLO 5150 (see **Table Q-3**). **Map Q-2** shows the overlap of PLO 5150 and community subsistence use areas around the communities of Coldfoot and Wiseman.

Table Q-3
Acres of Community Subsistence Use Areas within PLO 5150 by Alternative

PLO 5150	A	B	C1	C2	D	E
Recommend retaining inner corridor or make no recommendation	189,000	189,000	189,000	—	—	189,000
Recommend retaining outer corridor or make no recommendation	463,000	—	—	—	—	463,000
Recommend revoking inner corridor or make no recommendation	—	—	—	189,000	189,000	—
Recommend revoking outer corridor or make no recommendation	—	463,000	463,000	463,000	463,000	—

Source: BLM GIS 2017



Public land order (PLO) 5150 Outer Utility Corridor

Community subsistence use area

PLO 5150 Inner Corridor



Map Q.2

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.

Data Source: BLM GIS 2017, ADF&G GIS 2018

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Under 50 CFR 100.26, residents living in the DHCMA may use snowmachines. Residents of Coldfoot and Wiseman use the corridor and the Nolan Road for motorized access to fuelwood collection areas.[5] Such access would be maintained under Alternative A. This same regulation also allows for the residents Coldfoot, Wiseman, Alatna, Allakaket, Anatuvuk Pass, Bettles, Evansville, and Stevens Village to use firearms in the DHCMA for the taking of wildlife. Retaining PLO 5150 would continue to allow residents of Coldfoot and Wiseman access to subsistence resources. Other communities would also continue to be able to use firearms for subsistence hunting under Alternative A.

The area that is selected by PLO 5150 is important to subsistence users for Dall sheep hunting and access to sheep hunting in Gates of the Arctic National Park and Preserve, specifically residents of Wiseman and Coldfoot. These sheep populations are accessible from the Dalton Highway by non-subsistence bow hunters in the DHCMA and rifle hunters outside the DHCMA. Road-accessible sheep populations in the state are rare, making this area popular for sheep hunting because access is relatively inexpensive. Hunting guides also use this area for commercial guiding of nonresident sheep hunters. This activity has resulted in user conflict in recent years as non-subsistence hunting in the area has increased. Rural residents who are subsistence users have expressed frustration over low hunter success rates for sheep in the DHCMA. They cite guided hunting activity and non-subsistence hunting as causes for difficulty procuring sheep. User conflict would continue to be a problem under this alternative if non-subsistence sheep hunting increases.

Alaska Statute (AS) 19.40.210 prohibits the use of OHVs on land within 5 miles of the Dalton Highway north of the Yukon River. The exception is for persons who hold a mining claim near the highway and who must use land within 5 miles of the ROW to gain access to the mining claim. ANILCA Section 811 supersedes the State statute on federal lands in the corridor, thereby enabling federally qualified rural residents to use traditional means of travel to access subsistence resources. As a result, residents of Wiseman and Coldfoot can use OHVs in the DHCMA to access traplines; this access would remain in place under Alternative A.

Also, under Alternative A, there would be no new utility corridors that could affect subsistence uses and resources in the planning area.

Impacts Common to All Action Alternatives

All action alternatives include the designation of additional utility corridors. Additionally, all action alternatives include the requirement that ROWs for linear projects are required to incorporate design features or stipulations to mitigate impacts on caribou passage in migration corridors for all priority wildlife species. Applicants must demonstrate that the design features or stipulations are able to effectively mitigate impacts using scientifically verified construction techniques and design features. This requirement would benefit subsistence uses by maintaining caribou migration corridors and mitigating potential impacts on resource availability.

Under all action alternatives, the recommended full or partial revocation of PLO 5150 (for the outer corridor only under Alternatives B and C1 and full revocation under Alternatives C2 and D) would enable top-filings to become effective selections. This would affect subsistence access and harvest provisions provided under federal subsistence management regulations for the communities of Allakaket, Anaktuvuk Pass, Bettles, Coldfoot, Evansville, Rampart, Stevens Village, and Wiseman.

[5]Jack Reakoff (planning area resident), and Michelle Ethun (BLM Project Manager), personal communication with Jack Reakoff, July 31, 2019.

Fifty-one percent of lands in PLO 5150 are identified by the State as Priority 1 and 2 top-filed lands for conveyance, and they are likely to be conveyed during the life of the plan. These lands would no longer be under BLM management nor subject to SOPs. Because the selected lands would no longer be considered public lands as defined by ANILCA Section 102, local residents would not retain federal subsistence priority access. The recommended full or partial revocation of PLO 5150 would have the practical effect of removing the federal subsistence priority for residents of Coldfoot and Wiseman.

The loss of federal priority subsistence status for these communities would create increased competition for harvest of moose, caribou, and Dall sheep. It also removes federal subsistence management regulations that provide for a method of harvest (firearms), which was determined to be needed for residents of Coldfoot and Wiseman. Residents would not be able to use firearms within 5 miles of the Dalton Highway in the outer corridor, which substantially inhibits their ability to harvest moose, Dall sheep, and other big game. Dall sheep habitat is primarily on lands selected by PLO 5150; therefore, a recommended partial or full revocation of the PLO could negatively affect this important subsistence species through loss of habitat if other protective mitigation measures are not enacted.

Residents of Coldfoot and Wiseman would not retain legal federal motorized access for subsistence purposes where the land is conveyed to the State because Section 811 would no longer supersede AS 19.40.210. This would increase competition from sport hunters for harvest of moose, caribou, and Dall sheep in the area and impact subsistence resource abundance and availability. Residents of Coldfoot and Wiseman would experience significant restrictions to subsistence access, as these communities typically harvest resources in the outer corridor of PLO 5150. Residents would not be able to use snowmachines along most of Nolan Road, in the Wiseman Creek and Hammond River drainages, or in other overland areas next to the PLO 5150 corridor. This would prevent residents from accessing traplines and important hunting and fishing areas and from collecting firewood, both in the outer corridor and (for Wiseman) in traditionally used areas in Gates of the Arctic National Park and Preserve. AS 19.40.210 would bar residents of Coldfoot and Wiseman from using OHV on Nolan Road and other roads to access traditional moose, Dall sheep, and other subsistence use areas.

Additionally, under all action alternatives, residents would not be able to hunt or fish under federal regulations on selected lands. Though species-specific regulations vary, bag limits, legal requirements, and seasons are often more liberal under federal regulations. Hunting or fishing under State regulations may reduce residents' ability to harvest sufficient quantities of subsistence resources.

All action alternatives designate the Ambler and Umiat utility and transportation corridors, which are likely to increase the potential for future road construction in these areas. The communities of Anaktuvuk Pass, Allakaket, Alatna, Bettles, Evansville, Wiseman, and Coldfoot would have the highest potential to experience impacts associated with the designation of these corridors. Potential development could directly affect subsistence resources and uses through habitat fragmentation and increased pressure on subsistence hunting through increased access via new corridors. Potential development could also impact the availability of subsistence resources if wildlife species such as caribou are deterred from typical migration patterns or habits.

Impacts under Alternative B

Under Alternative B, 1,704,000 acres (38 percent) of community subsistence use areas in the decision area would be open to ROWs, with standard restrictions; 2,010,000 acres (45 percent) would be designated as ROW avoidance and 692,000 acres (16 percent) would be designated as ROW exclusion. This is the most restrictive and therefore most protective of subsistence uses of all the alternatives.

Under Alternative B, the BLM would recommend that the Secretary revoke 5,252,000 acres of 17(d)(1) withdrawals and 1,395,000 acres of withdrawal in the PLO 5150 corridor. As a result, 2,407,000 acres within the community subsistence use areas in the decision area will be opened to development, which is 55 percent of the community use areas (compared to no areas recommended for withdrawal in Alternative A. Within these lands, 102,000 acres have high mineral potential and could be developed. If development occurs, it could cause impacts to the abundance of the subsistence resources within these lands and may also block access for subsistence users. Additionally, as a result of the revocation, 370,000 acres of Priority 1 and 2 lands will convert from State top-filings to effective State selection. Lands within effective State selections lose their designation as public lands per ANILCA and the Federal subsistence priority would no longer apply. As such, 370,000 acres of community use areas will no longer be subject to the rural priority for subsistence uses. This could lead to increased competition and shorter harvest seasons with lower bag limits. As such, this is a significant restriction on access to subsistence activities for the users within the affected community use areas, especially Bettles, Coldfoot, and Wiseman. The 176,000 acres of Priority 3 and 4 selected lands may come back into federal management in the future, but it is assumed that all 370,000 acres of Priority 1 and 2 selected lands will be conveyed to the State and Federal subsistence priority will never apply on these lands again.

Conveying effective selected lands to the State would change how subsistence is managed. The State of Alaska would manage the area according to its harvesting laws, which require the Board of Game and Board of Fisheries to provide a reasonable opportunity for subsistence uses first, before providing for other uses of any harvestable surplus of a fish or game population (AS 16.05.258 (b)). However, the State does not provide a rural priority for subsistence use. It is expected that the change in management in this area may increase competition for access to resources from other subsistence users and non-subsistence users which could affect the abundance or availability of subsistence resources. When the priority is removed, it will likely lead to increased hunting pressure and a decrease in abundance. Opening the land to development is likely to lead to a decrease in abundance and additionally, the BLM cannot guarantee the State will keep the lands open to access across these lands to areas open to Federal subsistence priority.

Under the recommended revocations, the previously withdrawn land would also be opened to appropriation under the public land laws. This includes the current Native allotment program pursuant to the Dingell Act. Activities in allotments would likely be predominantly personal uses such as subsistence, clearing of land, building of a small structure, or developing camping (BLM 2022a). The Lands and Realty and Utility Corridor Section analysis (Section 3.3.2) predicts no more than 259,040 acres (0.02 percent of the decision area) may be selected and then conveyed through this action. These parcels would likely be isolated and distributed across a large geographic area. Based on these factors, impacts to subsistence resources would be minimal as the parcels potentially conveyed out of Federal ownership are relatively small areas within much larger areas of public lands where a federal subsistence priority would remain.

Alternative B recommends a partial revocation of the PLO 5150 withdrawal outer corridor lands. As a result of the partial revocation, motorized use (including snowmachines) would not be allowed for subsistence purposes (due to their State-selected status upon revocation of PLO 5150) in 463,000 acres the outer corridor lands. Within the areas recommended for revocation, 325,000 acres are top-filed Priority 1 and 2. At its widest point, which is east of Bettles, the outer corridor is approximately 14 miles wide. Loss of priority subsistence access to these lands would eliminate legal motorized access for subsistence purposes to the communities of Coldfoot and Wiseman. As a result, residents of Wiseman would not be able to use snowmachines to cross

BLM-managed lands within the DHCMA to access Gates of the Arctic National Park and Preserve managed lands to the west of Wiseman; this is where residents do much of their Dall sheep hunting.[6]

Areas where residents of Wiseman have customary and traditional use determinations in GMUs 24A, 26B, and 25A would also become inaccessible. Residents of Coldfoot do not have a customary and traditional use determination for Gates of the Arctic National Park and Preserve lands; they are not allowed to hunt on National Park Service lands under Federal Subsistence Management regulations. As a result, Coldfoot residents primarily hunt in the DHCMA. Alternative B would limit access to subsistence resources for these residents.

The partial revocation of the outer corridor of PLO 5150 recommended under Alternative B would restrict their subsistence access. The partial revocation of PLO 5150 would have the practical effect of removing the federal subsistence priority for residents of Coldfoot and Wiseman and would eliminate legal motorized access for subsistence purposes for these communities. In addition, residents of Allakaket, Anaktuvuk Pass, Bettles, Evansville, Rampart, and Stevens Village would no longer be afforded the use of firearms for subsistence hunting on these same lands. Limitations on firearm use may be considered a legal restriction to access consistent Section 810.

Two utility and transportation corridors would be designated under Alternative B, the Ambler Road (Dalton East-West Corridor) 5-mile corridor and the Road to Umiat Corridor (North Slope East-West Corridor; the block of State-selected lands to the west of the Toolik Lake Research Natural Area). There are 43,000 acres (1 percent) of Community Subsistence Use Areas in the decision area that overlap with the proposed Ambler Road Corridor. The designation of this corridor may affect subsistence abundance, availability, and access for residents of Anaktuvuk Pass, Allakaket, Alatna, Bettles, Evansville, Wiseman, and Coldfoot. This would come about through the potential for increased mineral exploration, increased recreation, increased competition for resources, or, if their use affects resource abundance, availability, or access.

Impacts under Alternative C1

Under Alternative C1, 3,172,000 acres (72 percent) of community subsistence use areas in the decision area would be open to ROWs with standard restrictions; 1,229,000 acres (27 percent) would be designated as ROW avoidance, and 5,000 acres (less than 1 percent) would be designated as ROW exclusion. This is more restrictive than Alternative A and therefore is most protective of subsistence uses.

Alternative C1, would recommend the same revocations as Alternative B; therefore, the impacts on subsistence uses and resources would be the same as described under Alternative B.

Potential impacts on subsistence uses and resources associated with the two utility corridors described under Alternative B would be the same under Alternative C1.

Under Alternative C1, the BLM would recommend that the Secretary revoke 5,252,000 acres of 17(d)(1) withdrawals and 1,395,000 acres of withdrawal in the PLO 5150 corridor. Impacts would be similar to Alternative B, including impacts on subsistence due to selection of allotments pursuant to the Dingell Act.

Impacts under Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

Under Alternative C2, 4,007,000 acres (91 percent) of community subsistence use areas in the decision area would be open to ROWs with standard restrictions; 399,000 acres (9 percent) would be designated as ROW

[6]Jack Reakoff (planning area resident), and Michelle Ethun (BLM Project Manager), personal communication with Jack Reakoff, July 31, 2019.

avoidance. This alternative would be more protective of subsistence resources than Alternative A through the designation of ROW avoidance areas.

Alternative C2 recommends a full revocation of the PLO 5150 withdrawal and a replacement with an administrative designation of the Dalton Utility and Transportation Corridor in place of the inner corridor, which overlaps with 221,000 acres (5 percent) of community subsistence use areas in the decision area (**Map Q-2**). The full revocation would entail 651,000 acres (15 percent) of community subsistence use areas in the decision area automatically becoming effective selections for the State of Alaska. This change in management within PLO 5150 may result in increased competition for access to resources from non-subsistence users, which could affect the abundance or availability of subsistence resources. Increased competition would also cause adverse impacts on subsistence resource abundance, as more competition means fewer resources overall available for harvest. Similarly, increased competition may impact resource availability as subsistence resources may become sparser within the planning area, or subsistence users may choose to expend a greater effort to harvest in a different location to avoid sport hunters. Lands transferred to the State of Alaska would be unavailable for subsistence activities conducted under Title VIII of ANILCA.

Under Alternative C2, the BLM would recommend that the Secretary revoke 5,252,000 acres of 17(d)(1) withdrawals and 2,138,000 acres of withdrawal in the PLO 5150 corridor. As a result, 2,595,000 acres within the community subsistence use areas in the decision area will be opened to development, which is 59 percent of the community use areas. Within these lands, 131,000 acres have high mineral potential and could be developed. If development occurs, it could cause impacts to the abundance of the subsistence resources within these lands and may also block access for subsistence users. Additionally, as a result of the revocation, 370,000 acres of Priority 1 and 2 lands will convert from State top-filings to effective State selection. Lands within effective State selections lose their designation as public lands per ANILCA and the Federal subsistence priority would no longer apply. As such, 538,000 acres of community use areas will no longer be subject to the rural priority for subsistence uses. This could lead to increased competition and shorter harvest seasons with lower bag limits. As such, this is a significant restriction on access to subsistence activities for the users within the affected community use areas, especially Bettles, Coldfoot, and Wiseman. The 187,000 acres of Priority 3 and 4 selected lands may come back into federal management in the future, but it is assumed that all 538,000 acres of Priority 1 and 2 selected lands will be conveyed to the State and Federal subsistence priority will never apply on these lands again.

Allotment selection pursuant to the Dingell Act on lands where withdrawals would be recommended for revocation would result in minimal impacts on subsistence resources as described under Alternative B.

The residents of Coldfoot and Wiseman would likely be most affected by the full revocation of the PLO 5150 withdrawal, due to the proximity and their current use of the area for subsistence practices. Residents of these communities use snowmachines to access subsistence resources in the fall, winter, and spring. Revocation of the PLO 5150 withdrawal would no longer permit this use within the DHCMA, and there would be no way for subsistence users to access Gates of the Arctic National Park.[7] Other communities, such as Alatna, Allakaket, Bettles, and Evansville, whose residents use the DHCMA for subsistence hunting, would also be affected; shifting management of the corridor to the State of Alaska would eliminate the rural preference and would likely encourage more outside hunters into the area.

[7]Jack Reakoff (planning area resident), and Michelle Ethun (former BLM Project Manager), personal communication July 31, 2019.

Alternative C2 includes the same designation of the same two utility corridors as Alternatives B and C1. This is in addition to the designation of a Dalton Utility Corridor in place of the inner corridor previously selected by PLO 5150. These corridors could affect subsistence uses for the communities of Anaktuvuk Pass, Hughes, Allakaket, Alatna, Bettles, Evansville, Wiseman, and Coldfoot. This would be the result of the potential for increased mineral exploration, recreation, and competition for resources or, if their use affects resource abundance, availability, or access. Alternative C2 would therefore have the greatest impact on subsistence through restrictions to subsistence access and current subsistence uses of the DHCMA.

In Alternative C2, the BLM would recommend revoking the portions ANCSAs 17(d)(1) withdrawals included in the Draft RMP; within community subsistence use areas, this would be 1,944,000 acres and 1,800,000 would be retained. Within the areas recommended for revocation, 493,000 acres are Priority 1 and 2.

Impacts under Alternative D

Impacts on subsistence resources under Alternative D from the designation of ROW avoidance and exclusion areas would be the same as those under Alternative A.

The recommendation to fully revoke PLO 5150 and the designation of the Ambler, Umiat, and Dalton Highway utility and transportation corridors would result in the same impacts on subsistence resources as discussed under Alternative C2.

Under Alternative D, the BLM would recommend that the Secretary revoke 5,252,000 acres of 17(d)(1) withdrawals and 2,138,000 acres of withdrawal in the PLO 5150 corridor. Impacts would be similar to Alternative B, including impacts on subsistence due to selection of allotments pursuant to the Dingell Act.

Impacts under Alternative E (Proposed Plan)

Under Alternative E, 3,759,000 acres (85 percent) of community subsistence use areas in the decision area would be open to ROWs with standard restrictions, 639,000 acres (14 percent) would be designated as ROW avoidance, and 7,000 acres (less than 1 percent) would be designated as ROW exclusion. This alternative would be more protective of subsistence resources than Alternative A through the designation of ROW avoidance areas, but less protective than Alternative B and C1.

Alternative E would include the recommendation that the Secretary revoke in part 11,115,000 million acres of ANCSA 17(d)(1) PLOs. to allow for selection by Alaska Native Vietnam-era veterans. While lands would be removed from Federal subsistence priority, the nature of the allotments means that the impacts are expected to be minor and spread across the landscape.

Impacts on subsistence from designation of Ambler and Umiat utility corridors are the same as under Alternatives B and C1. Due largely to the recommendation for full retention of PLO 5150, and fewer acres open to ROW location, Alternative E would have fewer impacts on subsistence resource access and abundance than Alternative A

Impacts from Recreation and Visitor Services Management Actions on Subsistence

In addition to the management actions common to all the action alternatives, potential impacts from the following management topics were considered:

- Special Recreation Management Areas (SMRAs)
- Extensive Recreation Management Areas (ERMAs)
- Backcountry Conservation Areas (BCAs)

Impacts under Alternative A (No Action)

Under Alternative A, 671,000 acres (15 percent) of the community subsistence use areas in the decision area would be managed as SRMAs at two locations: the Dalton Highway Corridor SRMA and the Dalton Highway SRMA. These areas would maintain the targeted recreation objectives of sightseeing and wildlife viewing. Management actions in these areas would likely lessen the potential for any conflicts between recreationists and subsistence users. There would be no ERMAs that overlap with community subsistence use areas under this alternative. There are no BCAs designated under Alternative A.

There would continue to be dispersed recreation opportunities in a primitive setting outside the SRMAs and ERMAs, including traditional activities, with the primary users being local villagers, community members, and recreationists engaged in backcountry trips. Special recreation permits (SRPs) would be considered on a case-by-case basis; the nature and type of impacts associated with the SRPs would be based on the type and location of the permitted activity. Continuing to issue SRPs on a case-by-case basis would allow outfitters to accommodate demand for guided hunting and fishing, which could conflict with subsistence activities and compete for resources, and other specially permitted activities. These impacts on subsistence would be greatest in areas of high recreation use, such as along the Dalton Highway. Over time, as recreation demand is expected to increase along the Dalton Highway, the potential for conflicts between recreationists and subsistence users would also increase. Wiseman residents have expressed concerns over the mounting hunting pressure by non-local hunters on local resources, particularly caribou and Dall sheep (Holen et al. 2012).

Impacts Common to All Action Alternatives

Recreation can affect subsistence resources and local users in the planning area by introducing humans into remote areas, potentially interfering with subsistence activities and competing for subsistence resources. The presence of motorized vehicles, aircraft, and humans can disturb fish and wildlife resources, potentially increasing energy expenditure as they move away from the activity for the short term and long term.

The movement of wildlife in turn can affect subsistence harvests and result in hunters having to travel farther and expend more fuel and time to hunt and harvest resources. Recreation activities during breeding periods can reduce reproductive success of subsistence resources. Wildlife can also habituate to human presence, which can increase the risk of injury or mortality from human-wildlife interactions.

Recreation can also result in degradation or loss of habitat, although there are no existing or proposed recreation facilities in the planning area where concentrated recreation use is likely to occur. Most recreation in the planning area is along the Dalton Highway. Fish, wildlife, and vegetation that are important to subsistence users in this area are the most likely resources to be affected by increased use by recreationists and visitors. Recreational hunting and fishing have a direct impact on wildlife and subsistence resources through mortality and reduction in prey species.

Impacts on subsistence users from recreation are generally the result of conflicts between recreational uses, such as motorized versus nonmotorized use, sport hunting, and fishing. The frequency and intensity of user conflicts are seasonal, localized, and occur only when users perceive the uses to be incompatible. Conflicts increase over time as an increasing number of visitors seek recreation on BLM-managed land. The potential for impacts is greatest where visitors' expectations are for a remote setting. Developing new recreation facilities would expand recreation opportunities but would also attract more visitors to the decision area. Increased visitation could result in more conflicts between recreationists and subsistence users, particularly in high-use areas, such as along the Dalton Highway.

Under all action alternatives, limitations on domestic sheep and pack goats in Dall sheep habitats would enable an effective separation to avoid disease risk to this important subsistence resource. The use of camelids as pack animals would be considered on a case-by-case basis. Under all action alternatives, SRPs also would be considered on a case-by-case basis; the nature and type of impacts associated with the SRPs would be based on the type and location of the permitted activity. This additional review could reduce potential conflicts between recreationists and casual and subsistence users in certain areas or during specific times of the year.

Impacts under Alternative B

Under Alternative B, 189,000 acres (4 percent) of community subsistence use areas in the decision area would be managed as SRMAs. The Central Dalton SRMA overlaps 56,000 acres (1 percent) and the Sukakpak Region Sukakpak Region SRMA overlaps 133,000 acres (3 percent) of community subsistence use areas in the decision area. These SRMAs would continue to concentrate recreation in the areas next to the Dalton Highway.

Under Alternative B, 5,000 acres (less than 1 percent) of community subsistence use areas in the decision area would be managed as part of the Spooky Valley ERMA. Management includes a limitation on the duration of overnight camping stays and designation for seasonal, nonmotorized use requiring access by foot or, in winter, by snowmachine. These protections would benefit subsistence uses along the Dalton Highway.

Under Alternative B, 463,000 acres (10 percent) of community subsistence use areas in the decision area would be managed as the Dalton Highway Corridor BCA. This BCA would be managed to protect the intact and undeveloped character and to manage habitats to support migration/movement corridors for recreationally important species of fish and wildlife; big game winter range, summer range, parturition areas, migration corridors and associated stopover areas; and migratory bird habitats. New ROWs would be colocated in existing disturbances or at existing sites. Subsistence users in this area would benefit from this protection of subsistence resources; conversely, the designation could bring more attention to recreational hunting and could increase pressure on subsistence resources.

Impacts under Alternative C1

The Dalton Highway Corridor SRMA designated under Alternative C1 would overlap 688,000 acres (16 percent) of community subsistence use areas in the decision area. There are nine recreation management zones (RMZs) in the SRMA (**Appendix K**). Dall sheep hunting is an activity that draws visitors to the SRMA. Permit demand is high for the Coldfoot RMZ, which includes the communities of Wiseman and Coldfoot. Management actions in the Coldfoot RMZ would increase opportunities for developed or trail-based recreation, as compared with Alternative A. Under AS 19.40.020, the SRMA is closed to OHVs and off-road vehicles, unless otherwise authorized under AS 17.05.789, Prohibition on Hunting Adjacent to Highway Between Yukon River and Arctic Ocean, hunting with firearms is prohibited. This applies to the area within 5 miles of either side of the highway between the Yukon River and the Arctic Ocean. Management actions would provide for increased summer recreation and could also increase conflicts between recreational, casual, and subsistence users.

Additionally, 5,000 acres (less than 1 percent) of community subsistence use areas in the decision area would be managed as the Spooky Valley ERMA; impacts would be the same as described under Alternative B. There are no BCAs proposed under Alternative C1; impacts would be the same as those described under Alternative A.

Impacts under Alternative C2 (Preferred Alterative in the Draft RMP/EIS)

The Dalton SRMA under Alternative C2 covers the same area as the Sukakpak Region SRMA and the Central Dalton SRMA under Alternative B. The Dalton SRMA under Alternative C2 would also be comprised of the four RMZs that correspond with the Sukakpak Region SRMA and the Central Dalton SRMA. The Coldfoot RMZ would be a developed recreational area managed by the BLM under Alternative C2; the potential for conflicts among recreational, casual, and subsistence users in the area would be greater than under Alternative A.

Impacts under Alternative D

Alternative D recreation management actions would provide the fewest protections for subsistence resources. Under Alternative D, there would be no SRMAs, ERMAs, or designated BCAs.

Impacts under Alternative E (Proposed Plan)

Under Alternative E, 439,000 acres (10 percent) of community subsistence use areas in the decision area would be managed as SRMAs. The Central Dalton SRMA overlaps 219,000 acres (5 percent) of community subsistence use areas and the Sukakpak Region SRMA overlaps 220,000 acres (5 percent) of community subsistence use areas in the decision area. These SRMAs would continue to concentrate recreation in the areas next to the Dalton Highway.

Under Alternative E, 201,000 acres (4 percent) of community subsistence use areas in the decision area would be managed as the Dalton Highway Corridor BCA. Impacts from this designation would be similar to those described under Alternative B, though to a lesser degree since half as many acres are designated under Alternative E. Subsistence users in this area would benefit from this protection of subsistence resources; conversely, the designation could bring more attention to recreational hunting and increase pressure on subsistence resources compared to Alternative A.

Impacts from Travel and Transportation Management Decisions on Subsistence

In addition to the management actions common to all the action alternatives, the BLM considered the potential impacts on subsistence resources from the following management topics:

- Summer OHV use
- Over snow travel limitations for BLM-permitted activities
- Aircraft use

Impacts under Alternative A (No Action)

Under Alternative A, OHV travel would be managed as limited to existing routes. Weight limitations enforced by a gross vehicle weight of 1,500 pounds for summer OHV use would limit the ability for OHVs to tow or carry heavy equipment across the decision area, but it would help prevent long-term degradation on existing trail ways that would diminish future access.

At the Dalton Highway Travel Management Area (TMA) (453,000 acres of which overlap with community subsistence use areas), requiring permits for casual and commercial use during the summer season and restricting Trans-Alaska Pipeline System crossings at designated points would reduce travel use conflicts with commercial vehicles using the Dalton Utility Corridor for drill-related activities. Despite specific access limits associated with AS 19.40.210, a BLM Authorized Officer would continue to permit property owners to cross inner corridor lands via OHV to access privately held properties or homesteads outside the corridor, allowing for subsistence use travel in the area.

Alternative A includes the requirement that aircraft associated with all BLM-authorized land use activities will be required to fly a minimum of 2,000 feet above ground level, from May 1 to August 31, unless doing so would endanger human life or be an unsafe flying practice in the Nugget Creek, Poss Mountain, Snowden Mountain and West Fork Atigun ACECs (42,000 acres, or less than 1 percent of community subsistence use areas in the decision area). This management action would decrease potential disturbance impacts on caribou and other subsistence species in the area.

Impacts Common to All Action Alternatives

Under all action alternatives, new or expanded ROWs would provide opportunities for improved access and reduced potential for impacts from cross-country travel. Under all action alternatives, curb weight restrictions would limit travel opportunities for heavier vehicles. Limiting cross-country travel along the Dalton Corridor TMA to subsistence use only would preclude other forms of travel. Use of OHVs can degrade wildlife habitats and subsistence use areas through ground disturbance, particularly when soils are not frozen. They can also crush nests and small terrestrial species and can lead to the creation of new trails, which can increase the amount of disturbed area and provide access to competing harvest of fish, wildlife, and vegetation. Except for the priority subsistence access determination for the residents of Wiseman, there are no management actions that differ for casual use versus subsistence use.

Impacts under Alternative B

Under Alternative B, summer OHV restrictions would protect the largest geographic area from competition between casual and subsistence OHV users. Under Alternative B, OHV travel would be limited on 3,136,000 acres (71 percent) of community subsistence use areas in the decision area, summer closures would be in place on 615,000 acres (14 percent), and seasonal limitations (closed May 1 through June 30) would be in place on 655,000 acres (15 percent). This seasonal travel restriction may impede overland travel between Tanana and Alatna/Allakaket, which could disrupt patterns of subsistence use for these communities. While the restrictions may impede some subsistence activities, they would also minimize impacts on subsistence resources and reduce competition between casual and subsistence users by providing more access to more of the planning area for subsistence uses.

Under Alternative B, several ACECs would have summer OHV use timing restrictions and a prohibition of summer OHV use. Timing restrictions would affect 655,000 acres (15 percent) and the prohibition would affect 615,000 acres (14 percent) of community subsistence use areas in the decision area that overlap these ACECs. Those areas would not be available for OHV access during some parts of the year, which could impede access to subsistence resources.

The transfer of management responsibilities for transportation actions to the State of Alaska through the recommended partial revocation of PLO 5150 would affect areas currently accessible for both summer OHV casual use and qualified subsistence winter OHV use. This would affect approximately 651,000 acres, or 14 percent of community subsistence area. State land along the Dalton Highway would be exempt from associated ANILCA provisions; Alaska Statute 19.40.210 would remain in effect (DOI 2004). Under Alternative B, in this area BLM Authorized Officers would no longer be able to permit property owners to cross inner corridor lands via OHV to access privately held properties or homesteads outside the corridor. This would impact the ability to travel for subsistence purposes in the area.

Alternative B includes the requirement that aircraft associated with all BLM-authorized land use activities would be required to fly a minimum of 2,000 feet above ground level in caribou calving areas associated with the GMH and the RMH from May 1 through June 30, in Dall sheep habitat from May 1 through August 31,

and in 10 different ACECs during various times. This would be done to reduce the potential impacts on caribou and Dall sheep.

Additionally, normal aircraft landings, except in certain instances, would be prohibited from May 1 through June 30 in the Galena Mountains, Jim River, Tozitna, Sulukna River, and Upper Kanuti River ACECs. These actions would benefit subsistence users of these species by reducing wildlife disturbance associated with aircraft noise during this time. This restriction covers the largest geographic area among the alternatives.

Impacts under Alternative C1

Under Alternative C1, OHV travel would be limited to existing routes on 4,007,000 acres (91 percent) of community subsistence use areas in the decision area. Approximately 399,000 of these acres (9 percent) would be subject to summer seasonal limitations, as compared with no summer restrictions under Alternative A. Summer OHV travel is limited in core caribou habitat for the GMH and RMH, and summer OHV use is restricted in the Toolik Lake RNA. The restrictions may impede some subsistence activities during specific periods and specific areas; however, they would also minimize impacts on subsistence resources. They would also reduce competition between casual and subsistence users by providing more access to more of the planning area for subsistence uses.

Alternative C1 includes the requirement that aircraft associated with all BLM-authorized land use activities be required to fly a minimum of 2,000 feet above ground level from May 1 through June 30 in caribou calving areas and in Dall sheep priority habitat. This would benefit users of these subsistence resources by reducing wildlife disturbance associated with aircraft noise.

Impacts under Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

Impacts on subsistence resources from OHV management restrictions under Alternative C2 would be the same as described under Alternative C1. Alternative C2 does not include any aircraft altitude restrictions associated with BLM-authorized land use activities. Potential impacts on subsistence wildlife species from aircraft noise would be greater under this alternative than under Alternative A.

Impacts under Alternative D

Impacts from OHV designations and not applying seasonal limitations for OHV use under Alternative D would be the same as described under Alternative A. Alternative D does not include any aircraft altitude restrictions associated with BLM-authorized land use activities. Potential impacts on subsistence wildlife species from aircraft noise would be greater under this alternative than under Alternative A.

Impacts under Alternative E (Proposed Plan)

Under Alternative E, OHV travel would be limited to existing routes on 4,007,000 acres (91 percent) of community subsistence use areas in the decision area. Approximately 399,000 acres (9 percent) of community subsistence use areas would be subject to summer seasonal limitations, as compared with no summer restrictions under Alternative A. Under Alternative E, summer OHV travel is not limited in core caribou habitat for the GMH and RMH as it is under Alternatives C1 and C2. These restrictions may impede some subsistence activities during specific periods and specific areas; however, they also would minimize impacts on subsistence resources. Additionally, they would reduce competition between casual and subsistence users by providing access to more of the planning area for subsistence uses.

Impacts from the requirement that aircraft associated with all BLM-authorized land use activities be required to fly a minimum of 2,000 feet aboveground level from May 1 through June 30 in caribou calving areas and

in Dall sheep priority habitat would be the same as those under Alternative C1. This would benefit users of these subsistence resources by reducing wildlife disturbance associated with aircraft noise.

Impacts from ACEC Management Decisions on Subsistence

Impacts under Alternative A (no Action)

Under Alternative A, 777,000 acres (18 percent) of community subsistence use areas in the decision area would be managed as ACECs or RNAs. This would protect subsistence resources and resource availability in those areas. Alternative A designates the Tozitna Subunits North and South ACEC to protect caribou habitat for the RMH (161,000 acres; 4 percent of community subsistence use areas in the decision area).

All Dall sheep habitat in the planning area is open to locatable mineral entry under Alternative A

Impacts Common to All Action Alternatives

All action alternatives would require surface-disturbing mineral exploration and development to be conducted under an approved plan of operations (43 CFR 3809). Casual uses are exempt from this requirement.

Impacts under Alternative B

Alternative B would be the most protective of subsistence resources. Under Alternative B, 1,502,000 acres (34 percent) of community subsistence use areas in the decision area would be managed as ACECs or RNAs. This would provide the most benefit to subsistence by protecting subsistence resources on the largest geographic area. Alternative B provides protections through ACEC or RNA designations on 725,000 more acres (52 percent more) of community subsistence areas than Alternative A. This would reduce the potential for surface-disturbing activities and associated visual and noise disruptions that could affect subsistence species.

Two additional ACECs would be designated for caribou: the Spooky Valley ACEC for the RMH and Upper Kanuti River ACEC for the HHH. Subsistence users would benefit from the protections put in place for caribou OHV. Also, surface-disturbing activities would be prohibited in the Upper Kanuti River ACEC from May 1 to June 30 to avoid disturbance during the caribou calving period. Under Alternative B, 1,164,000 acres (11 percent of the decision area) would be designated to protect caribou habitat through ACECs or RNA designation (the Galena Mountain, Spooky Valley, Tozitna, and Upper Kanuti River ACECs protect caribou). This would provide additional subsistence resource protection for the communities that harvest caribou in these locations.

Dall sheep habitat under Alternative B would be protected by adding the Midnight Dome/Kalhabuk ACEC (10,000 acres) to those designated under Alternative A. This increase would limit development, as compared with non-designated areas, and would provide more protections from surface-disturbing activities for subsistence wildlife species and their habitats than under Alternative A. Adding the Midnight Dome/Kalhabuk would provide additional protections for subsistence use areas frequented by the residents of Wiseman and Coldfoot.

Five of the ACECs would include restrictions within 0.5 miles of mineral licks under Alternative B. Alternative B would reduce disturbance to wildlife and would protect these key habitats by reducing the potential for habitat loss, degradation, and fragmentation. This, in turn, would provide additional protections for a wide range of species important to subsistence activities to a greater extent than under Alternative A.

Under Alternative B, access to subsistence harvest of timber and woody vegetation may be affected by prohibitions. The harvest of timber and woody vegetation in the Sukapak/Snowden Mountain ACEC would

be prohibited, except for transportation and utility corridors and federal administrative sites. Subsistence harvest of timber and woody vegetation would be prohibited in the Kanuti Hot Springs ACEC.

Impacts under Alternative C1

Under Alternative C1, 141,000 acres (3 percent) of community subsistence use areas in the decision area would be managed as ACECs. This would benefit subsistence users by protecting subsistence resources. Alternative C1 provides protections through ACEC or RNA designations on 636,000 fewer acres (18 percent less) of community subsistence areas than Alternative A. This would increase the potential for impacts on subsistence resources through surface-disturbing activities.

Impacts under Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

ACECs under Alternative C2 would provide the least amount of protection for subsistence resources out of all alternatives. This is because there would be no acres of community subsistence use areas in the decision area that overlap ACECs or RNAs.

Alternative C2 would remove the five ACECs with Dall sheep that are designated as a key resource under Alternative A. Furthermore, there would be no requisite plan of operations for surface-disturbing activities, as are currently required for ACECs designated with Dall sheep as a key resource.

Impacts under Alternative D

Impacts under Alternative D would be the same as those described under Alternative C2.

Impacts under Alternative E (Proposed Plan)

Under Alternative E, 1,172,000 acres (27 percent) of community subsistence use areas in the decision area would be managed as ACECs, compared to 777,000 acres under Alternative A. This would benefit subsistence users compared to Alternative A by protecting subsistence resources from surface-disturbing activities that are permitted only outside ACECs.

Subsistence: Impacts from WSRs Management Decisions

WSR corridors provide habitat for subsistence resources and users who use stream and riparian habitats. Management to preserve the outstanding natural, cultural, and recreational values in a free-flowing condition promotes fish and wildlife habitat health in these areas; however, recreationists in these areas may disturb fish, wildlife, and vegetation and therefore disturb subsistence resources and users.

Impacts under Alternative A (No Action)

Under Alternative A, 175 miles of 11 different rivers would be managed as eligible for inclusion in the National Wild and Scenic Rivers System. Six of these river corridors overlap community subsistence use areas, providing 26,000 acres (less than 1 percent) of community subsistence use areas in the decision area with related management protections. Rivers are an important source for multiple subsistence resources and valuable transportation networks for inter-village travel. Interim protective management guidelines for all eligible segments (pending congressional action) include a prohibition of actions that would result in the following:

- Alter the free-flowing nature of the eligible segments through impoundments
- Construct diversions that have the effect of impounding water, channeling, or riprapping
- Have an adverse impact on an eligible segment's identified outstandingly remarkable values (ORVs)
- Modify an eligible segment or its corridor to the degree that its eligibility or preliminary classification would be affected

- Diminish water quality to the point that the water would no longer support the ORVs

Identified ORVs would be enhanced to the extent practicable. Management of these rivers would likely improve habitat conditions for subsistence species, such as fish, beaver, moose, and waterfowl, by providing additional protection from surface-disturbing activities and potential pollutants.

Impacts Common to All Action Alternatives

There are no impacts common to all action alternatives. The nature and type of impacts from WSR management actions on subsistence resources would vary, based on the level of proposed management of identified rivers.

Impacts under Alternative B

Under Alternative B, 603 miles of 11 different rivers would be managed as suitable for inclusion in the National Wild and Scenic Rivers System. Six of these river corridors overlap community subsistence use areas, providing 26,000 acres (less than 1 percent) of community subsistence use areas in the decision area with related management protections. Alternative B would include the same management as described under Alternative A, with additional protections of the rivers through visual resource management classes, ROW avoidance, NSO for fluid mineral leasing and development (wild segments), and controlled surface use for fluid mineral leasing and development (recreation segments). Wild segments would be closed to mineral material disposal. Additional protections include closing wild segments to commercial timber harvest and prohibiting non-subsistence collection of live vegetation, acquiring land from willing sellers to maintain ORVs and free-flowing nature, and recommending that the Secretary of the Interior withdraw wild segments from locatable mineral entry.

Since Alternative B provides additional protections for the 603 miles of rivers recommended as suitable, Alternative B would have a greater potential to reduce impacts on wildlife from resource uses in these areas, compared with Alternative A.

Additionally, this alternative's protective management would limit development within the segments. This would reduce the associated disturbance and habitat degradation. These protections would benefit subsistence resources in these segments, such as fish, beaver, moose, and waterfowl.

Impacts under Alternative C1

Under Alternative C1, all seven eligible rivers that overlap community subsistence use areas in the decision area would be determined as not suitable for inclusion in the National Wild and Scenic Rivers System; they would be released from interim management protections afforded eligible segments. Management direction that does not preserve these river segments could cause adverse impacts on subsistence resources. This would be the result of habitat degradation and subsistence resources displacement from surface-disturbing activities.

Impacts under Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

Impacts under Alternative C2 would be the same as those under Alternative C1.

Impacts under Alternative D

Impacts under Alternative D would be the same as those under Alternative C1.

Impacts under Alternative E (Proposed Plan)

Impacts under Alternative E would be the same as those under Alternative C1.

Cumulative Impacts

Past and present land uses in the planning area can all affect subsistence. Examples of these uses are resource exploration and extraction, community infrastructure, military activities, research and monitoring, and recreation (including non-subsistence hunting and fishing). Impacts from such actions include ROW establishment, lease sales, and surface occupancy.

Land use for all lands in the planning area, including lands not managed by the BLM, has influenced the current condition of subsistence resources in the planning area. Past and present recreation, sport hunting and fishing, and traditional subsistence practices have affected the availability and abundance of subsistence resources; these activities are expected to continue.

Land use for recreation, subsistence, and tourism is expected to increase, as local, state, and national populations grow and the rate of international visitors to the Arctic increases. Current subsistence harvest levels of wildlife, fish, and other resources in the planning area are sustainable; however, the subsistence needs of rural residents in the planning area are not being met, particularly for salmon, moose, and sheep. Competition for resources is expected to continue between subsistence and other user groups in the planning area.

The potential development of transportation corridors and trails, mineral exploration and development on State and Native lands, and the potential for increased recreational activities in or next to the planning area, would all contribute to cumulative impacts on subsistence resources (Magdanz et al. 2016). Depending on the location, extent, intensity, and duration of development, these impacts could include the following:

- Increased competition for subsistence resources
- Habitat degradation or fragmentation
- Increased disturbance to wildlife through increased access into wildlife habitats
- Unauthorized or uncontrolled OHV use
- Increased potential for road kills
- Possible alteration of behavior or movement patterns and seasonal habitat use of wildlife

Impacts on subsistence may result in any reasonably foreseeable or significant restriction of subsistence use for some rural communities in the planning area. This would be the result if significant activities occur with utility and transportation corridor development, mineral exploration, increased recreation in or next to the planning area, or unforeseen events in climate change that affect resource abundance, change harvest patterns, limit access to resources, or increase competition.

Under all alternatives, large ROW projects would affect travel patterns and uses for subsistence community residents who use these areas (Magdanz et al. 2016). The development of ancillary facilities and temporary access roads may result in unintended development along this corridor, which affects subsistence gathering regions. Designations that protect aquatic and terrestrial habitats, such as ACECs, WSRs, and areas managed to preserve wilderness characteristics, would reduce the risk to sensitive areas important for subsistence.

Impacts on subsistence resource availability, abundance, and access would likely result if smaller communities were linked to new transportation corridors, as non-resident and non-local hunters would be able to access the area with little effort. This may also increase tourist traffic and recreation in the area, resulting in additional impacts on wildlife.

The communities of Nuiqsut and Anaktuvuk Pass may experience compounded significant restrictions of subsistence use. This would be due to a potential decrease in caribou availability associated with the development of the Alaska Liquified Natural Gas Project (FERC 2020). Continued expansion of industrial activity on the North Slope could displace caribou of Western Arctic Herd from their normal migratory routes, could increase the area considered to be undesirable by subsistence users, and could cause subsistence users to travel farther to harvest subsistence foods.

The communities of Alatna, Alakaket, Anaktuvuk Pass, Bettles, Coldfoot, and Wiseman may experience compounded significant restrictions of subsistence use. This would be due to a potential abundance and availability of caribou, fish, and vegetation associated with the development of the Ambler Road (BLM 2020). Direct mortality of caribou from the Western Arctic Herd could occur along this route from vehicle-caribou strikes. Caribou may also see new linear features across the landscape as barriers that could shift their behaviors or migratory patterns, potentially affecting herd population and resource availability. Road traffic and construction could also cause behavioral and migratory changes in caribou, which, in turn, could impact subsistence hunting success.

Impacts on subsistence access would occur in the vicinity of the road corridor, particularly when usable hunting areas have been removed. Because subsistence activities occur year-round, and local subsistence users would be prohibited from using the road, it is likely that subsistence users would experience access-related impacts. Construction of Ambler Road would require multiple bridges, culverts, and bank modifications that could indirectly impact fish species through loss of habitat and lower spawning success. Lower abundance may lead to lower availability of both salmon and non-salmon fish in subsistence use areas. Suitable vegetation harvest areas would also be removed from the Ambler Road corridor and access to the historical use area would be hindered. Vegetation harvesting is a high value resource to most communities in the planning area, which would increase the intensity of this reduction in the availability of resources.

The construction of the utility and transportation corridors and the associated increase in fuel and facilities needs could also result in a population increase in adjacent communities when access is increased. Once established, new residents would be eligible to hunt and fish under Federal Subsistence Regulations, which would likely increase the pressure on the area's subsistence resources.

Future changes in demand and unpredictable fluctuations in populations or distribution of subsistence resources make it difficult to predict the sustainability of subsistence opportunities in many areas. Random events, such as severe winters and climate shifts, and changes in demand for allowable land uses, such as increased gold mining spurred by favorable gold prices, can affect resource distribution and availability.

The price of fuel affects the level of participation in subsistence activities, as gas prices influence how far rural residents can afford to travel to harvest resources; however, it also increases the cost of bringing groceries and other resources to remote communities. Rural residents may concentrate pressure in areas to reduce fuel usage, while continuing to offset the cost of importing groceries to the communities, especially those not connected by road. Fuel prices can be several dollars per gallon higher in rural areas than in Fairbanks and along major highways.

In comparison to the other alternatives, Alternative B would provide most protection for subsistence resources indirectly affected by present and future activities in the planning area, followed by Alternative E; Alternatives C2 and D would provide the least protection.

The impacts of climate change could influence the rate or degree of the potential cumulative impacts. Management actions that relate to subsistence would not counteract climate change impacts on subsistence

resources. Changes in snowfall patterns and frequency, forest type, and overall shifting cliomes[8] would likely drive changes in subsistence resource distribution related to fish, wildlife, and vegetation, including timber. Such changes may increase economic insecurity of communities in the planning area that rely on subsistence incomes. This would be due to increased time and fuel costs to locate resources or to cultivate new methods to secure subsistence livelihoods closer to their villages. Climate-driven changes in access, when combined with restrictions on OHV travel, such as limiting to existing routes, timing restrictions, and no summer OHV use, may adversely affect subsistence users.

When the impacts of the alternatives are considered in context with the cumulative impacts of climate change, measures to reduce direct and indirect stressors on ecological systems that support important subsistence species may lead to a higher level of ecological resilience in responding to changing climate. Decisions that mitigate erosion, soil compaction, and habitat fragmentation may increase ecological resilience to climate change. This could lessen the risk to households and communities that rely on subsistence resources.

The results of the cumulative impacts analysis for subsistence including reasonably foreseeable future actions are presented in **Table Q-4**.

[8] Cliomes are broadly defined regions of temperature and precipitation patterns that reflect assemblies of species and vegetation communities (biomes) that occur or might be expected to occur based on links with climate conditions.

Table Q-4
Cumulative Impacts Analysis for Subsistence: Trends and Forecasts of Subsistence for Past, Present, and RFFAs

Alternative A	Alternative B	Alternative C1	Alternative C2	Alternative D	Alternative E
Current subsistence harvest levels of wildlife, fish, and other resources in the planning area are sustainable; however, the subsistence needs of rural residents in the planning area are not being met, particularly for salmon, moose, and sheep. Past and present activities have disturbed and displaced subsistence resources and activities, but harvest levels and practices would likely continue. **Trend:** User conflict would continue to be a problem if non-subsistence sheep hunting increases. There would be no change overall for subsistence resource but degrading for some species and improving for others.	With the trends of continued natural resource development and increased casual and recreation use in the planning area, subsistence resources would continue to degrade, and subsistence users could face increased competition for resources. **Trend:** Improving. Implementing Alternative B would result in an improved trend for most fish and wildlife that are subsistence resources. For species with habitat or populations that are degrading, this alternative would lessen the rate of degradation or stabilize or counter the existing trend. For species with habitat or populations that are improving, improvement would continue at a similar or greater rate.	With the trends of continued natural resource development and increased casual and recreation use in the planning area, subsistence resources would continue to degrade, and subsistence users could face increased competition for resources. **Trend:** Varies between species important to subsistence. Implementing Alternative C1 would result in an improved trend for most fish and wildlife that are subsistence resources. For species with habitat or populations that are degrading, the degradation may continue, but at a lesser rate and could be stabilized. For species with habitat or populations that are improving, improvement would continue at a similar or greater rate.	With the trends of continued natural resource development and increased casual and recreation use in the planning area, subsistence resources would continue to degrade, and subsistence users could face increased competition for resources. **Trend:** Degrading. Implementing Alternative C2 would result in a degrading trend for most subsistence resources. For species with habitat or populations that are degrading, the degradation may continue, or it may worsen. For species with habitat or populations that are improving, improvement may cease.	With the trends of continued natural resource development and increased casual and recreation use in the planning area, subsistence resources would continue to degrade, and subsistence users could face increased competition for resources. **Trend:** Degrading. Implementing Alternative D would result in a degrading trend for most subsistence resources. For species with habitat or populations that are degrading, the degradation may continue or worsen. For species with habitat or populations that are improving, improvement may cease.	With the trends of continued natural resource development and increased casual and recreation use in the planning area, subsistence resources would continue to degrade, and subsistence users could face increased competition for resources. **Trend:** Varies between species important to subsistence. Implementing Alternative E would result in an improved trend for most fish and wildlife that are subsistence resources. For species with habitat or populations that are degrading, the degradation may continue, but at a lesser rate and they could be stabilized. For species with habitat or populations that are improving, improvement would continue at a similar or greater rate.

Q.8 REFERENCES CITED

ADFG (Alaska Department of Fish and Game). 2020. Community Subsistence Information System (CSIS). Internet website: http://www.adfg.alaska.gov/sb/CSIS/.

Bacon, J., R. T. Hepa, H. Brower, Jr., M. Pederson, T. Olemaun, J. George, and B. Corrigan. 2011. Estimates of Subsistence Harvest for Villages on the North Slope of Alaska, 1994–2003. North Slope Borough, Department of Wildlife Management. Barrow, Alaska. Internet website: http://www.north-slope.org/assets/images/uploads/MASTER%20SHDP%2094-03%20REPORT%20FINAL%20and%20%20Errata%20info%20(Sept%202012).pdf.

BLM (U.S. Department of the Interior Bureau of Land Management). 2019. Coastal Plain Oil and Gas Leasing Program Final Environmental Impact Statement. BLM-AK-PL-20-003-1610-930. Prepared by the BLM Alaska State Office, Anchorage.

_____. 2020. Ambler Road Project Final Environmental Impact Statement. Appendix M: ANILCA Section 810 Final Evaluation. DOI-BLM-AK-F030-2016-0008. Prepared by the Department of the Interior Bureau of Land Management Central Yukon Field Office, Fairbanks.

_____. 2022. Alaska Native Vietnam-era Veterans Land Allotment Program Environmental Assessment. BLM Alaska State Office, Anchorage, Alaska. DOI-BLM-AK-0000-2021-0005-EA. Internet website: https://eplanning.blm.gov/public_projects/2014748/200491665/20057951/250064133/Native%20Veteran%20Allotment%20EA_Final_Consolidated_508.pdf.

Brown, C. L., J. Burr, K. Elkin, and R. J. Walker. 2005. Contemporary Subsistence Uses and Population Distribution of Non-Salmon Fish in Grayling, Anvik, Shageluk, and Holy Cross. U.S. Fish and Wildlife Service, Office of Subsistence Management, Fisheries Resource Monitoring Program, Final Report (Study 02-037). Alaska Department of Fish and Game, Division of Subsistence, Technical Paper Series No. 289. Fairbanks, Alaska.

Brown, C. L., L. J. Slayton, A. Trainor, D. S. Koster and M. L. Kostick. 2014. Wild Resource Harvests and Uses, Land Use Patterns, and Subsistence Economies in Manley Hot Springs and Minto, Alaska. 2012. Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 400. Fairbanks, Alaska.

Brown, C. L., A. Brenner, H. Ikuta, E. H. Mikow, B. Retherford, L. J. Slayton, A. Trainor, et al. 2015. The harvest and uses of wild resources in Mountain Village, Marshall, Nulato, Galena, and Ruby, Alaska, 2010. Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 410. Fairbanks, Alaska.

Brown, C. L., N. M. Braem, M. L. Kostick, A. Trainor, L. J. Slayton, D. M. Runfola, E. H. Mikow, et al. 2016. Harvests and Uses of Wild Resources in 4 Interior Alaska Communities and 3 Arctic Alaska Communities. Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 426. Fairbanks, Alaska.

Brown, C. L., and M. L. Kostick (editors). 2017. Harvest and Use of Subsistence Resources in 4 Communities in the Nenana Basin, 2015. Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 429. Fairbanks, Alaska.

Brown, C. L, B. M. McDavid, C. F. Moncrieff, A. Trainor, and J. S. Magdanz. 2017. Community Trade and Barter as Part of a Continuum of Exchange Practices in 3 Upper Yukon Communities: Fort Yukon, Manley Hot Springs, and Venetie. Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 437. Fairbanks, Alaska.

DCCED (Alaska Department of Commerce, Community, and Economic Development). 2020. Alaska Community Database Community Information Summaries. Division of Community and Regional Affairs. Internet website: https://dcra-cdo-dcced.opendata.arcgis.com/.

DOI (Department of the Interior, Office of the Solicitor). Memorandum from Joseph D. Darnell to Alaska State Director, BLM, Anchorage. October 29, 2004.

FERC (Federal Energy Regulatory Commission). 2020. Alaska LNG Project Final Environmental Impact Statement. FERC/EIS-0296F. Prepared by the Federal Energy Regulatory Commission, Washington, DC.

Harkness, M., M. Reid, N. Fresco, S. Martin, H. Hamilton, S. Auer, S. Marchenko, et al. 2012. Seward Peninsula—Nulato Hills—Kotzebue Lowlands Rapid Ecoregional Assessment Report. Prepared for the U.S. Department of the Interior, Bureau of Land Management.

Holen, D., W. E. Simeone, and L. Williams. 2006. Wild Resource Harvests and Uses by Residents of Lake Minchumina and Nikolai, Alaska, 2001–2002. Alaska Department of Fish and Game. Technical Paper No. 296. Juneau, Alaska.

Holen, D., S. M. Hazell, and D. S. Koster (editors). 2012. Subsistence harvests and uses of wild resources by communities in the eastern Interior of Alaska, 2011. Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 372. Anchorage, Alaska.

Kofinas, G., S. B. BurnSilver, J. Magdanz, R. Stotts, and M. Okada. 2016. Subsistence Sharing Networks and Cooperation: Kaktovik, Wainwright, and Venetie, Alaska. BOEM Report 2015-023 DOI; AFES Report MP 2015-02. School of Natural Resources and Extension, University of Alaska Fairbanks.

Livezey, K. B., E. Fernandez-Juricic, and D. T. Blumstein. 2016. Database of bird flight initiation distances to assist in estimating effects from human disturbance and delineating buffer areas. Journal of Fish and Wildlife Management 7: 181–191.

Magdanz, J. S., J. Greenberg, J. Little, and D. Koster. 2016. The Persistence of Subsistence: Wild Food Harvests in Rural Alaska, 1983-2013 (May 13, 2016). Internet website: http://dx.doi.org/10.2139/ssrn.2779464.

Marcotte, J. R. 1986. Contemporary Resource Use Patterns in Huslia, Alaska, 1983. Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 133. Fairbanks, Alaska.

Monda, M. J., J. T. Ratti, and T. R. McCabe. 1994. Reproductive ecology of tundra swans on the Arctic National Wildlife Refuge, Alaska. Journal of Wildlife Management 58: 757–773.

Reimers, E., and J. E. Colman. 2006. Reindeer and caribou (*Rangifer tarandus*) response towards human activities. Rangifer 26: 55–71.

Stevens Village Council. 1991. A Comprehensive Land Use Plan for the Traditional Lands of Stevens Village, including graph of seasonal resource harvest activities by month. Internet website: commerce.alaska.gov/dcra/admin/Download/GetFile/?documentUID=337ddcbe-3bb4-4443-af76-610d6a9b8489&isPdf=true

Stien, J., and R. A. Ims. 2015. Absence from the nest due to human disturbance induces higher nest predation in common eiders *Somateria mollissima*. Ibis 158: 249–260.

Uher-Koch, B. D., J. A. Schmutz, and K. G. Wright. 2015. Nest visits and capture events affect breeding success of yellow-billed and Pacific loons. Condor 117: 121–129.

USFWS (U.S. Fish and Wildlife Service). 2015. Arctic National Wildlife Refuge. Revised Comprehensive Conservation Plan and Final Environmental Impact Statement. Internet website: https://www.fws.gov/home/arctic-ccp/.

Van Lanen, J. M., C. Stevens, C. Brown, B. K. Maracle, and D. Koster. 2012. Subsistence and Mammal Harvests and Uses, Yukon Flats, Alaska: 2008–2010 Harvest Report and Ethnographic Update. Technical Paper No. 377. Alaska Department of Fish and Game, Division of Subsistence. Anchorage, Alaska.

Wheeler, P. 1987. Salmon Fishing Patterns Along the Middle Yukon River at Kaltag, Alaska. Alaska Department of and Game, Division of Subsistence. Technical Paper No. 156. Juneau, Alaska.

Wilson, S. J., and M. L. Kostick. 2016. Harvest and Use of Wild Resources in Hughes, Alaska, 2014. Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 424. Fairbanks, Alaska.

Wolfe, R., and R. Walker. 1987. Subsistence economies in Alaska: Productivity, geography, and development impacts. Arctic Anthropology 24(2): 56–81.

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Appendix R

ANILCA Section 810 Final Evaluation

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ACRONYMS AND ABBREVIATIONS

	Full Phrase
AAC	Alaska Administrative Code
ACEC	areas of critical environmental concern
ANILCA	Alaska National Interest Lands Conservation Act
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
CYRMP	Central Yukon Resource Management Plan
FEIS	final environmental impact statement
DHCMA	Dalton Highway Corridor Management Area
EIS	environmental impact statement
EO	Executive Order
OHV	off-highway vehicle
PLO	Public Land Order
RNA	research natural area
ROW	right-of-way
SRMA	special recreation management area

Appendix R. ANILCA Section 810 Final Evaluation

R.1 Subsistence Evaluation Factors

Section 810(a) of (ANILCA), 16 United States Code Section 3120(a), 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." Public lands are defined by ANILCA Section 102(3) as Federal lands, subject to several statutory exclusions such as valid land selections of a Native Corporation made under the Alaska Native Claims Settlement Act or land selections of the State of Alaska which have been tentatively approved or validly selected under the Alaska Statehood Act. As such, an evaluation of potential impacts on subsistence under ANILCA Section 810(a) must be completed for the Central Yukon Resource Management Plan Final Environmental Impact Statement (CYRMP FEIS). ANILCA requires that this evaluation include findings on the following:

- The effect of use, occupancy, or disposition of public lands on subsistence uses and needs
- The availability of other lands for the purposes sought to be achieved
- Other alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes

Three factors are considered when determining if a significant restriction of subsistence uses and needs may result from the proposed action, alternatives, or in the cumulative case, as follows:

- Reduction in the abundance of harvestable resources used for subsistence purposes
- Reduction in the availability of resources used for subsistence caused by alteration of their distribution, migration patterns, or location
- Legal or physical limitations on subsistence users' access to harvestable resources

Each alternative must be analyzed according to these criteria. ANILCA Section 810 also requires that cumulative impacts be analyzed. This approach helps the reader separate subsistence restrictions that could potentially be caused by activities proposed under the five alternatives from those that could potentially be caused by past, present, and future activities that have occurred or could occur in the surrounding area.

An alternative would significantly restrict subsistence uses if, after consideration of stipulations or protection measures such as required operating procedures, it can be expected to substantially reduce the opportunity to use subsistence resources. Substantial reductions are generally caused by large reductions in resource abundance, a major redistribution of resources, extensive interference with access, or major increases in the use of those resources by non-subsistence users.

If the analysis determines that the proposed action, alternatives, or the cumulative case may significantly restrict subsistence uses, the BLM must notify the State of Alaska and appropriate regional and local subsistence advisory committees. The BLM must also conduct ANILCA Section 810 hearings in potentially affected communities.

It is possible that the finding may be revised to "will not significantly restrict subsistence uses" based on changes to alternatives, new information, or new mitigation measures resulting from the hearings. If the

significant restriction remains, the BLM may prohibit the action or finalize the evaluation by making the following determinations:

- A significant restriction of subsistence uses would be necessary, consistent with sound management principles for the use of public lands
- The proposed activity would involve the minimal amount of public land necessary to accomplish the purpose of the use, occupancy, or other disposition
- Reasonable steps will be taken to minimize adverse effects upon subsistence uses and resources resulting from such actions (Section 810(a)(3)).

The BLM can then authorize use of the public lands.

Environmental Justice

In addition to ANILCA, Executive Order (EO) 12898, Environmental Justice for Low Income and Minority Populations, calls for an analysis of the effects of federal actions on minority populations with regard to subsistence. Environmental Justice is defined as follows:

The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development of environmental laws, regulations, and policies (U.S. Environmental Protection Agency).

Fair treatment is defined as follows:

The principle 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 (U.S. Environmental Protection Agency).

EO 12898 Section 4-4, Subsistence Consumption of Fish and Wildlife, requires federal agencies to collect, maintain, and analyze information on the consumption patterns of populations that principally rely on fish and wildlife for subsistence. The EO also requires federal agencies to communicate to the public any risks associated with the consumption patterns from proposed activities. The following were reviewed and comply with EO 12898:

- Description of subsistence use in CYRMP DEIS Chapter 3, Affected Environment and Environmental Consequences, and Appendix Q, Subsistence Uses and Resources
- Analyses of the impacts of Alternatives A, B, C1, C2, D, E, and the Cumulative Case in CYRMP DEIS Chapter 3, Affected Environment and Environmental Consequences
- Consideration of public comments on the CYRMP DEIS and feedback received during the ANILCA 810 hearings on the CYRMP DEIS.

As described in Section 3.5.1 of the EIS, environmental justice populations identified for consideration with this RMP include: Evansville, Rampart, Alatna, Allakaket, Stevens Village, Hughes, Huslia, Ruby, Galena, Tanana, Koyukuk, Nulato, Kaltag, Manley Hot Springs, Minto, Nenana, Venetie, Lake Minchumina, McKinley Park, Ester, Fairbanks, and Anaktuvuk Pass. Non-environmental justice populations identified for analysis in the EIS include Wiseman, Coldfoot, Bettles, Healy, North Pole, Big Delta, Delta Junction.

Subsistence-related impacts are identified and described as appropriate for these communities below. Communities not identified in the analysis below but on the lists above are not subject to subsistence-related impacts associated with the RMP.

R.2 ANILCA Section 810(a) Evaluations and Findings for all Alternatives and the Cumulative Case

Chapter 3, Affected Environment and Environmental Consequences of the CYRMP EIS describes the affected environment of the planning area and the potential effects of the alternatives on subsistence and subsistence resources. **Appendix Q**, **Subsistence Uses and Resources**, describes areas and resources important for subsistence and describes individual communities' degree of dependence on fish and wildlife populations. This evaluation uses the above information from the EIS to evaluate potential impacts to subsistence pursuant to Section 810(a) of ANILCA.

The CYRMP DEIS does not authorize specific actions or projects, nor are specific details regarding future proposals for use of public lands in the planning area known at this time. As such, most impacts are described qualitatively in this evaluation. Future authorizations for use of public lands in the planning area would be subject to site- or activity-specific ANILCA Section 810 evaluations as appropriate, which would identify and address impacts on subsistence in detail.

The evaluation is focused on the communities within the planning area because they have the most potential to be directly and indirectly impacted by land use allocations. The cumulative analysis includes consideration of past, present, and reasonably foreseeable future authorized uses both within and around the planning area and considers impacts to qualified subsistence users residing in northern Alaska.

R.2.1 Evaluation and Finding for Alternative A (No Action Alternative)

R.2.1.1 Evaluation of the effect of use, occupancy, or disposition on subsistence uses and needs

Management decisions for the following resources and designations do not impact or negligibly impact subsistence and are not discussed further in the evaluation:

- Air quality
- Paleontological resources
- Visual resources
- Hazardous materials and health and human safety
- Special status species
- Soils
- Forestry

Management decisions for the following resources and designations positively impact subsistence:

- Water, fish, and riparian-wetland vegetation
- Vegetation
- Wildlife
- Lands with wilderness characteristics
- Cultural resources
- Wild and scenic rivers

Effects from energy and mineral management decisions

Fluid mineral potential in most of the planning area ranges from low to very low. Development of nonenergy solid leasable resources is not anticipated in the planning area and is not analyzed in detail in the EIS. Fluid mineral or nonenergy solid leasable resource development would not impact the abundance, availability, or access to subsistence resources across all alternatives.

1,298,000 acres (29 percent) of subsistence use areas in the planning area would continue to be withdrawn from locatable minerals including metalliferous minerals under Alternative A. A total of 11,371,000 acres (31 percent) of subsistence use areas would continue to be open to location of metalliferous minerals and closed to location of non-metalliferous minerals. A total of 4,399,000 acres (over 99 percent) of subsistence use areas in the planning area would continue to be open to mineral material sales, and 7,000 acres (less than 1 percent) would continue to be closed to mineral material sales (see **Chapter 3**, **Section 3.5.2**).

Locatable and salable minerals development can affect fish and wildlife that are important to subsistence through loss, fragmentation, and degradation of habitat, and displacement. Human activity at developed sites can also discourage subsistence users from harvesting at these locations and potentially limit access to subsistence resources. High and moderate potential mining areas and waterbodies immediately downstream of mining activity are areas where localized impacts on fish and wildlife abundance and availability are most likely to occur.

To mitigate these impacts, locatable mineral and mineral material exploration and development include mining and reclamation plans that are expected to comply with laws, regulations, and BLM policy with the intent to maintain functionality of nearby soils, vegetation, wetlands, riparian areas, wildlife habitat and fisheries. Additionally, mitigation measures and best management practices designed to protect fish, wildlife and plant resources that are incorporated into current plans and permits are expected to reduce long term impacts on subsistence resources by minimizing development in key habitats and expediting habitat reclamation.

Impacts on the availability and abundance of fish and wildlife, including large mammals, furbearers, small game, and waterfowl, are expected to be minor. Given the small footprint of mining projects, local displacement of resources may occur, but subsistence users harvest these resources over broad areas and/or at a distance downstream whereby harvest is not anticipated to be adversely impacted. Access to important subsistence use areas is not prohibited at authorized mining operations. Impacts on access would be negligible.

Effects from lands, realty, and utility corridor management decisions

Public Land Order (PLO) 5150 would remain in place under Alternative A. The Dalton Highway inner and outer corridor lands would continue to be managed as unencumbered federal land. Access to traditional hunting, fishing, trapping, and gathering areas would be maintained and use of firearms by residents of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, Nuiqsut, and Stevens Village would continue to be permitted. During ANILCA 810 hearings, residents of Bettles, Stevens Village, and Wiseman emphasized the need for continued access to subsistence resources on federal public lands that were contingent on PLO 5150 remaining in place.

Under Alternative A, 4,406,000 acres in subsistence use areas are open to right-of-way (ROW) location. Development of infrastructure within the Ambler and Dalton utility ROWs is foreseeable within the life of the plan for all alternatives. ROW development could cause habitat degradation and fragmentation and increase competition for resources if those ROWs were used to build structures, utilities, or transportation corridors. This may impact moose, caribou, and fish resources as these resources are typically the most heavily

harvested resources in the planning area communities; however, impacts on the abundance or availability of fish, wildlife, or other subsistence resources on BLM-managed lands from ROW development on BLM-managed lands in the planning areas would be negligible. Existing lands, realty, and utility corridor management does not impact the abundance or availability of subsistence resources.

Effects from recreation and visitor services management

Under current management, most recreation in the planning area occurs along the Dalton Highway. There is dispersed recreational activity in the remainder of the planning area. Examples include primitive recreational opportunities undertaken by recreational users engaged in backcountry trips and commercially guided hunting.

Subsistence resources that are important to residents of Wiseman and Coldfoot have the potential to be affected by recreational use of the Dalton Highway. Currently, the frequency and intensity of use along the Dalton Highway by recreational users is seasonal and localized. As a result, impacts on the abundance and availability of wildlife, aquatic and other subsistence resources due to competition with recreation users is minor for residents of these two communities. Impacts on subsistence resources and availability outside of the Dalton Highway area are negligible.

Access to important subsistence use areas is not impeded or prohibited under current management.

Effects from travel and transportation management

Travel and transportation management would not affect the abundance or availability of fish, wildlife, or other subsistence resources under Alternative A.

Seasonal or summer closures are not proposed under Alternative A (see **Map 2.43**, **Map 2.44**, and **Map 2.45**, **Appendix A**); therefore, travel and transportation management would not affect access to subsistence resources under Alternative A.

Effects from Areas of Critical Environmental Concern management decisions

Under Alternative A, 777,000 acres (18 percent) of community subsistence areas would be managed as areas of critical environmental concern (ACECs) or research natural areas (RNAs).

Existing ACECs and RNAs would protect subsistence fish and wildlife resources through protection of terrestrial, vegetation, water, floodplains, wetlands, and riparian habitat. These plans provide specific program actions, stipulations and monitoring guidance that maintain the integrity of the environment while allowing public use. All alternatives include the requirement that surface-disturbing activities associated with mineral exploration and development in ACECs be conducted under an approved plan of operations (43 Code of Federal Regulations [CFR], Part 3809). This requirement allows additional assessment of potential impacts on resources, some of which may be harvested by subsistence users.

The abundance or availability of subsistence resources would not be impacted under current ACEC management. Access to subsistence resources would not be impacted by ACEC management decisions.

R.2.1.2 Evaluation of the availability of other lands for the purpose sought to be achieved

Consideration of other lands would not meet the purpose and need of this resource management planning process. Other BLM-managed lands in Alaska are being managed under existing resource management plans or are currently undergoing new planning processes. BLM does not have the authority to make or implement

land management planning decisions on federal land managed by other agencies, State land, Native corporation land, Native allotments, or private land.

R.2.1.3 Evaluation of other alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes

Alternatives A would reduce the use of public lands needed for subsistence. PLO 5150 would not be lifted under Alternatives A thereby maintaining the disposition of public lands needed for subsistence purposes.

Alternatives that would eliminate the use, occupancy, or disposition of public lands needed for subsistence would not allow or permit activities that conflict with subsistence. This would conflict with the Federal Land Policy and Management Act multiple use mandate (U.S. Department of the Interior 2001).

Additional alternatives considered but eliminated from detailed analysis are discussed in **Section 2.3**. These alternatives would reduce or eliminate the use of public lands needed for subsistence by 1) recommending wilderness designation by Congress and 2) maintaining wilderness characteristics in the Utility Corridor. Recommending wilderness designation by Congress would reduce the use of lands used for subsistence, but it is beyond the scope of the resource management plan. Maintaining wilderness characteristics in the corridor would reduce the use of lands used for subsistence, but maintaining or protecting wilderness characteristics in this area is not commensurate with PLO 5150.

R.2.1.4 Findings

Alternative A would not result in a significant restriction in subsistence uses and would not have a disproportionate negative effect on environmental justice communities. Alternative A would not result in a significant restriction to the communities of Bettles, Coldfoot, and Wiseman. A positive determination pursuant to ANILCA Section 810 is not required.

R.2.2 Evaluation and Finding for Alternative B

R.2.2.1 Evaluation of the effect of use, occupancy, or disposition on subsistence uses and needs

Effects from energy and mineral management decisions

Under Alternative B, 4,100,000 (93 percent) of subsistence use areas would be open to locatable mineral entry. 2,697,000 acres (61 percent) of subsistence use areas in the planning area would be open to mineral material sales. The area recommended for withdrawal from locatable mineral entry and proposed mineral material sales closure is the largest of any of the alternatives. There are areas of medium locatable mineral potential north of Tanana open to mineral entry under this alternative, which has the potential to impact subsistence uses and resources if developed.

Management actions prescribed under this alternative emphasize protection for subsistence access and resources. The combination of closures and protection of resources reduce the potential for impacts on subsistence uses and resources over a larger geographic extent than current management and other action alternatives. As a result, impacts on the availability and abundance of fish and wildlife, including large mammals, furbearers, small game, and waterfowl, are expected to be less than those described in Alternative A. Impacts would be minor. Access to important subsistence use areas is not blocked or prohibited at authorized mining operations; therefore, impacts on access would be negligible.

Effects from lands, realty, and utility corridor management decisions

The BLM would recommend the partial revocation of PLO 5150 under Alternative B, which would include lands within the outer corridor (see **Appendix Q**, **Map Q-2**). If the recommendations for revocation are acted on, top-filings by the State of Alaska would become valid selections on a total of 1,321,000 acres (11 percent) of BLM-managed lands in the planning area. As a result of the revocation, 370,000 acres of Priority 1 and 2 lands would convert from State top-filings to effective State selections. Allakaket, Anaktuvuk Pass, Bettles, Coldfoot, Evansville, Rampart, Stevens Village, and Wiseman would potentially be impacted by revocation of PLO 5150 lands in the outer corridor in three ways:

- Qualified subsistence users would no longer be able to hunt and fish under federal regulations in the outer corridor. They would be subject to seasons and bag limits set under State hunting and fishing regulations.
- The firearm use exemption for qualified federal subsistence users under 50 CFR 100.26(n)(20)(ii)(c)[1] does not apply on State-selected lands. Subsistence users would be prohibited from using a firearm for hunting within 5 miles of the Dalton Highway under State law.[2]
- Subsistence users would also be subject to restrictions on use of off-highway vehicles (OHVs) within 5 miles of the Dalton Highway[3] and a State regulatory prohibition on the use of certain vehicles for transporting hunters, game, or gear.[4]

Revocation of PLO 5150 in the outer corridor would result in no or minimal impacts on residents of Anaktuvuk Pass, Allakaket, Alatna, Bettles, Evansville, and Nuiqsut. Residents of Anaktuvuk Pass do not subsist on lands in the outer corridor and would therefore not be impacted by the recommended revocation under Alternative B. Small portions (< 5 percent) of the Allakaket, Alatna, Bettles, and Evansville subsistence use areas overlap the outer corridor, but the majority of mapped subsistence use areas for these communities would not be impacted by revocation of PLO 5150 recommended under Alternative B and impacts on these communities' access to subsistence resources would be minimal.

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[1] You may not use firearms, snowmachines, licensed highway vehicles or motorized vehicles, except aircraft and boats, in the Dalton Highway Corridor Management Area (DHCMA), which consists of those portions of Units 20, 24, 25, and 26 extending 5 miles from each side of the Dalton Highway from the Yukon River to milepost 300 of the Dalton Highway, except as follows: Residents living within the DHCMA may use snowmachines only for the subsistence taking of wildlife. You may use licensed highway vehicles only on designated roads within the DHCMA. The residents of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, Stevens Village, and residents living within the Corridor may use firearms within the Corridor only for subsistence taking of wildlife.

[2] Under Alaska statute, "[h]unting with firearms is prohibited north of the Yukon River in the area within five miles on either side of the [Dalton Highway] between the Yukon River and the Arctic Ocean" (Alaska Stat. Ann. § 16.05.789). The state regulatory code includes a similar prohibition that the DHCMA . . . "[is] closed to hunting; however, big game, small game, and fur animals may be taken in the area by bow and arrow only; (C) no motorized vehicle may be used to transport hunters, hunting gear, or parts of game within the DHCMA, except (i) licensed highway vehicles [may be used on designated roads]" (5 Alaska Administrative Code (AAC) 92.530(7)(B)).

[3] Off-road vehicles are prohibited on land within five miles of the right-of-way of the highway; however, this prohibition does not apply to (1) off-road vehicles necessary for oil and gas exploration, production, or transportation, (2) a person who holds a mining claim . . .; or (3) the use of a snow machine to travel across the highway corridor from land outside the corridor to access land outside the other side of the corridor. . . (Alaska Stat. Ann. § 19.40.210).

[4] Within the DHCMA . . . no motorized vehicle may be used to transport hunters, hunting gear, or parts of game within the DHCMA, except (i) licensed highway vehicles [may be used on designated roads]" (5 AAC 92.530(7)(C)).

Revocation of PLO 5150 in the outer corridor as recommended under Alternative B could result in minor impacts on residents of Stevens Village. The community's moose and furbearer subsistence use areas overlap the outer corridor (Brown et al. 2016). Approximately 55 percent of the mapped moose subsistence use area overlaps the outer corridor. The moose subsistence use hunting areas outside of the outer corridor, including many river-accessible areas, would not be impacted by revocation of PLO 5150 in the outer corridor. Impacts on Stevens Village residents' ability to harvest moose would likely be minor. A portion of Stevens Village's furbearer subsistence use area overlaps the outer corridor between the Yukon and Ray rivers and in the vicinity of the Kanuti River. Revocation of PLO 5150 in the outer corridor would not impact residents' access to furbearers because 1) use of snowmachines under 50 CFR 100.26(n)(20)(ii)(c) does not apply to residents of Stevens Village and therefore their authorized means of access would not change, and 2) harvest of furbearer species with a rifle is permitted under State trapping regulations, and therefore their authorized means of take would not change.

Revocation of PLO 5150 in the outer corridor as recommended under Alternative B would result in major impacts on residents of Coldfoot and Wiseman. Harvest of at least a portion of all resources occurs within the outer corridor, but it comprises a large percentage of the areas used to harvest moose, sheep, upland birds, furbearers, snowshoe hare, berries, and wood. Most of these resources are harvested along the Wiseman, Nolan, and Hammond roads. Wiseman is a Gates of the Arctic National Park and Preserve Resident Zone Community. Their primary means of accessing National Park and Preserve lands is via the Wiseman Creek and Hammond River drainages (BLM 2020) Traditional means of accessing, harvesting, and transporting these resources would remain intact in the inner corridor, but the following impacts would significantly impact hunting, fishing, and gathering practices:

- Coldfoot and Wiseman residents would not be able to use snowmachines along the majority of the Nolan Road, in the Wiseman Creek and Hammond River drainages, or within other overland areas adjacent to the corridor due to AS 19.40.210 (see **Appendix Q**, **Map Q-2**). This would prevent them from accessing traplines, important hunting and fishing areas, and collecting firewood and berries both within the outer corridor and, for Wiseman, in traditionally used areas in Gates of the Arctic National Park and Preserve (BLM 2020). Such a limitation would constitute extensive interference with access.
- Coldfoot and Wiseman residents would not be able to use highway vehicles on the Nolan, Wiseman, or other roads to access ("transport hunters, game, or gear") traditional moose, sheep, and other subsistence use areas because doing so would violate 5 AAC 92.530(7). Residents would not be able to access subsistence resources or transport harvested resources from the Dalton Highway to their homes in Wiseman. Such a limitation would constitute extensive interference with access.
- State of Alaska Statute Sec. 16.05.789 would prohibit residents from using firearms within 5 miles of the Dalton Highway within the outer corridor. As a result, their ability to harvest moose, sheep, and other big game would be substantially inhibited. Such a limitation would constitute extensive interference with access.
- Coldfoot and Wiseman residents would not be able to hunt or fish under federal regulations on State-selected lands in the outer corridor. Though species-specific regulations vary, bag limits, legal requirements, and seasons are often more liberal under federal regulations. Hunting or fishing under State regulations may reduce residents' ability to harvest enough subsistence resources. Such a limitation could constitute extensive interference with availability.

Alternative B recommends full revocation of 5,252,000 acres of ANCSA 17(d)(1) withdrawals. If accepted by the Secretary of the Interior, these revocations would make lands available for selection and appropriation under the public land laws. This will result in 835,000 acres of Priority 1 and 2 top-filed lands becoming effective State selections; these may be conveyed to the State within 10 years, at which point they would lose protections. The effectively selected lands would become no longer available for federal subsistence priority. Additionally, AS 19.40.210 would bar the current motorized use (including snowmobiles) for subsistence users crossing the Dalton Highway Corridor or starting from within 5 miles of the Dalton Highway Corridor for the subsistence harvest.

The public land laws include the conveyance of land allotments to Alaska Native Vietnam-era veterans under Section 1119 of the John D. Dingell Jr, Conservation, Management, and Recreation Act and land to the State under the Statehood Act.

ROW exclusion (692,000 acres) and avoidance (2,010,000 acres) designated in subsistence use areas under Alternative B would minimize habitat fragmentation and degradation in these areas. Alternative B would include the Ambler, Dalton, and Umiat utility and transportation corridors. Designating these administrative corridors allows the BLM to colocate ROW, access, and utility infrastructure. This would reduce dispersed impacts from multiple transportation and utility corridors and reduce overall surface disturbance. The 1,704,000 acres in subsistence use areas open to ROW location in Alternative B could cause habitat degradation and fragmentation and increase competition for resources if those ROWs were used to build structures, utilities, or transportation corridors. This may impact moose, caribou, and fish resources as these resources are typically the most heavily harvested resources in the planning area communities; however, impacts on the abundance or availability of fish, wildlife, or other subsistence resources on BLM-managed lands from ROW development on BLM-managed lands in the planning area would be negligible. Existing lands, realty, and utility corridor management does not impact the abundance or availability of subsistence resources.

Effects from recreation and visitor services management

Alternative B would increase targeted recreation opportunities available in the planning area and provide more managed recreational variety relative to Alternative A. As with Alternative A, most recreation and accompanying visitor services in the planning area would be focused along the Dalton Highway. In addition, 463,000 acres (10 percent) of the subsistence use areas would be managed as the Dalton Corridor Backcountry Conservation Area. This area, though potentially attracting more recreational users, would be managed to retain resource habitat in its current state.

Impacts on subsistence resources would be similar to Alternative A. Impacts of recreation and visitor services management on abundance or availability of fish, wildlife, or other subsistence resources would be minor under Alternative B. Access to important subsistence use areas would not be impeded or prohibited by recreation and visitor services management under Alternative B.

Effects from travel and transportation management

Travel and transportation management would not affect the abundance or availability of fish, wildlife, or other subsistence resources under Alternative B.

Access to subsistence resources could be impacted by OHV travel restrictions under Alternative B. Seasonal limitations (May 1–June 30) and summer closures would prohibit the use of OHVs in the areas outlined in **Maps 2.45-2.47** (**Appendix A**) during these time frames. Legal restrictions would limit the ability to access portions of these subsistence use areas during seasonal time frames (summer and May 1–June 30).

Summer and seasonal closures would constitute 14 and 15 percent of subsistence use areas, respectively. These include subsistence use areas for the communities of Tanana, Wiseman and Coldfoot, Wiseman, Venetie, Hughes, Huslia, and Ruby. Access to these areas is predominately by river during summer or via snowmachine in the winter (Brown et al. 2016, Holen et al. 2012). Overland access via OHV in summer and fall is uncommon and access to most these communities' subsistence resources would be maintained.

Effects from ACEC management decisions

Under Alternative B, 1,502,000 acres (34 percent) of community subsistence areas would be managed as ACECs or RNAs. Protection of habitat would benefit fish, wildlife and vegetation species harvested by subsistence users to a broader extent than Alternative A. For example, OHV use would be prohibited in the Upper Kanuti River ACEC from May 1 to June 30 to avoid disturbance during the caribou calving period. Conversely, access to subsistence resources could be affected by seasonal limitations on OHV travel under management actions formulated for specific ACECs under Alternative B. Overall, OHV restrictions are expected to have a minor effect on subsistence. In addition, harvest of timber and woody vegetation would be prohibited in the Kanuti Hot Springs and the Sukakpak/Snowden ACECs which could potentially impact subsistence users. These sites are not important subsistence vegetation harvest areas so the impact would be negligible.

R.2.2.2 Evaluation of the availability of other lands for the purpose sought to be achieved

The evaluation of the availability of other lands is identical to that described under Alternative A (see **R.2.1.2** above).

R.2.2.3 Evaluation of other alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes

Alternatives A and E would reduce the use of public lands needed for subsistence. PLO 5150 would not be recommended for modification under Alternatives A and E, thereby maintaining the disposition of public lands needed for subsistence purposes.

R.2.2.4 Findings

Alternative B would not result in a significant restriction in subsistence uses and would not have a disproportionate negative impact on the communities of Alatna, Allakaket, Anaktuvuk Pass, Arctic Village, Evansville, Galena, Hughes, Huslia, Kaltag, Koyukuk, Lake Minchumina, Manley Hot Springs, Minto, Nenana, Nuiqsut, Nulato, Rampart, Ruby, Stevens Village, Tanana, and Venetie. It would not result in a significant restriction in subsistence uses for the community of Bettles.

Alternative B may significantly restrict subsistence uses for the communities of Coldfoot and Wiseman due to potential reductions in the availability of and access to large mammals, fish, furbearers, firewood, and berries. A positive determination pursuant to ANILCA Section 810 is required.

R.2.3 Evaluation and Finding for Alternative C1

R.2.3.1 Evaluation of the effect of use, occupancy, or disposition on subsistence uses and needs

Effects from energy and mineral management decisions

Under this alternative, 4,189,000 (95 percent) of the subsistence use areas would be open to locatable mineral entry. Similar to Alternative B, there are areas of medium locatable mineral potential north of Tanana open to mineral entry. 3,777,000 (85 percent) of subsistence use areas would be open to mineral material disposal, an

increase of 40 percent from Alternative B. The area closed to mineral material sales constitutes the second largest geographic area unavailable for mineral sales of all the alternatives.

Alternative C1 represents a combination of resource protection and resource uses. Less land would be open to salable minerals than in Alternative A but more than in Alternative B. The area open to location of all minerals under Alternative C1 is an increase in acreage from Alternatives A and B, though under Alternative C1 310,000 fewer acres would be open only to metalliferous mineral location than under Alternative A.

As discussed under Alternative A, to mitigate impacts, locatable mineral and mineral material exploration and development including mining and reclamation plans are expected to comply with laws, regulations, and BLM policy with the intent to maintain functionality of nearby soils, vegetation, wetlands, riparian areas, wildlife habitat and fisheries. Additionally, mitigation measures and best management practices designed to protect fish, wildlife and plant resources that are incorporated into current plans and permits and incorporated into this EIS under this alternative are expected to reduce long term impacts on subsistence resources by minimizing development in key habitats and expediting habitat reclamation.

Impacts on the availability and abundance of fish and wildlife; including large mammals, furbearers, small game, and waterfowl; are expected to be similar to those described in Alternative A. These impacts are minor and not anticipated to significantly limit or reduce fish and wildlife availability or abundance. Access to important subsistence use areas is not blocked or prohibited at authorized mining operations; therefore, impacts on access would be negligible.

Effects from lands, realty, and utility corridor management decisions

PLO 5150 would be recommended for partial revocation under Alternative C1. The revocation of outer corridor lands and consequent effects on subsistence user access would be identical to that under Alternative B (see **Section R.2.2.1**). Revocation of PLO 5150 within the outer corridor would significantly impede access to subsistence resources for residents of Coldfoot and Wiseman. The revocation could also significantly impede residents' ability to harvest sufficient quantities of subsistence resources because they would be subject to State hunting and fishing regulations on lands in the outer corridor. Such limitations on the access and availability of subsistence resources would have a large impact on subsistence users.

Alternative C1 recommends full revocation of 5,252,000 acres of ANCSA 17(d)(1) withdrawals. If accepted by the Secretary of the Interior, these revocations would make lands available for selection and appropriation under the public land laws. This will result in 835,000 acres of Priority 1 or 2 top-filed lands becoming effective State selections. The effects would be similar to Alternative B. The public land laws include the conveyance of land allotments to Alaska Native Vietnam-era veterans under Section 1119 of the John D. Dingell Jr, Conservation, Management, and Recreation Act and land to the State under the Statehood Act.

In Alternative C1, ROW exclusion and avoidance designations would apply to 1,234,000 acres (28 percent) of subsistence use areas. Habitat fragmentation and degradation would be minimized in these areas. As in Alternative B, Alternative C1would include the Ambler, Dalton utility, and Umiat utility and transportation corridors. Designating these administrative corridors allows the BLM to colocate ROW, access, and utility infrastructure. This would reduce dispersed impacts from multiple transportation and utility corridors and reduce overall surface disturbance; however, in the 3,172,000 acres open to ROW location in subsistence use areas it could cause habitat degradation and fragmentation and increase competition for resources if those ROWs were used to build structures, utilities, or transportation corridors. This may impact moose, caribou, and fish resources as these resources are typically the most heavily harvested resources in the planning area communities; however, impacts on the abundance or availability of fish, wildlife, or other subsistence

resources on BLM-managed lands in the planning area from ROW development would be negligible. Existing lands, realty, and utility corridor management does not impact the abundance or availability of subsistence resources.

Effects from recreation and visitor services management

Extensive recreation management areas and special recreation management areas (SRMAs) would be used as management tools under Alternative C1. The Dalton Corridor Backcountry Conservation Area proposed in Alternative B would be replaced with a SRMA. Potential impacts on wildlife, fish, and other subsistence resources, and potential impacts on subsistence user access are similar to those described in Alternative B.

Effects from travel and transportation management

Access to subsistence resources could be impacted by OHV travel restrictions under Alternative C1. Seasonal limitations (May 1–June 30) and summer closures would prohibit the use of OHVs in the Toolik RNA and portions of the Ray and Kokrine Mountains (see **Map 2.49**, **Map 2.50**, and **Map 2.51**, **Appendix A**) during these time frames. Legal restrictions would limit the ability to access portions of these subsistence use areas during seasonal time frames (summer and May 1–June 30).

These areas overlap subsistence use areas for residents of Ruby, Tanana, Allakaket, Wiseman, and Coldfoot. As described under Alternative B, access to these areas is predominately by river during summer or via snowmachine in the winter (Brown et al. 2016, Holen et al. 2012). Overland access via OHV in summer and fall is uncommon and access to the majority of these communities' subsistence resources would not be restricted.

Effects from ACEC management decisions

Under Alternative C1, 141,000 acres (3 percent) of subsistence areas would be managed as ACECs or RNAs. This alternative manages for a smaller geographic area of ACECs than Alternatives A or B. The effects under Alternative C are similar to those described under Alternative B, though to a lesser degree, because of the decrease in acreage designated for ACEC management. The reduction in acres under Alternative C1 from Alternative B, requiring that surface-disturbing activities associated with mineral exploration and development in ACECs be conducted under an approved plan of operations (43 CF 3809), has the potential to negatively impact subsistence resources. These potential impacts would be most pronounced in ACECs designated in areas with salmon spawning under Alternative B but not under Alternative C1. These negative impacts are anticipated to be localized and not to substantially impact abundance or availability of subsistence resources.

Important habitat for caribou and sheep would not be designated as ACECs under this alternative; however, these areas would be delineated, and stipulations would be applied that would effectively mitigate potential impacts on these species; as a result, the abundance or availability of these subsistence resources would not be impacted.

R.2.3.2 Evaluation of the availability of other lands for the purpose sought to be achieved

The evaluation of the availability of other lands is identical to that described under Alternative A (see **R.2.1.2** above).

R.2.3.3 Evaluation of other alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes

The evaluation of other alternatives is similar to that described under Alternative A (see **R.2.1.3** above).

R.2.3.4 Findings

Alternative C1 would not result in a significant restriction in subsistence uses and would not have a disproportionate negative impact on the communities of Alatna, Allakaket, Anaktuvuk Pass, Arctic Village, Bettles, Evansville, Galena, Hughes, Huslia, Kaltag, Koyukuk, Lake Minchumina, Manley Hot Springs, Minto, Nenana, Nuiqsut, Nulato, Rampart, Ruby, Stevens Village, Tanana, and Venetie. Alternative C1 would not result in a significant restriction to the community of Bettles.

Alternative C1 may significantly restrict subsistence uses and would have a disproportionate negative effect on the communities of Coldfoot and Wiseman due to potential reductions in the availability of and access to large mammals, fish, furbearers, firewood, and berries. A positive determination pursuant to ANILCA Section 810 is required.

R.2.4 Evaluation and Finding for Alternative C2 (Preferred Alternative from Draft RMP/EIS)

R.2.4.1 Evaluation of the effect of use, occupancy, or disposition on subsistence uses and needs

Alternative C2 emphasizes a blend of resource protection and resource uses. Connectivity corridors, adaptability to climate change, and priority species would be considered in the context of allowing for more minerals development and other resource uses.

Effects from energy and mineral management decisions

Alternative C2 focuses on resource development. Under Alternative C2, 4,389,000 acres (over 99 percent) of subsistence use areas would be open to locatable minerals and 4,007,000 acres (91 percent) would be open to mineral material sales. Under this alternative, 18,000 acres (less than 1 percent) of subsistence use areas would be withdrawn from the mining laws or recommended for withdrawal from locatable mineral entry. In subsistence use areas in the decision area, 2,345,000 acres (53 percent) would remain segregated from locatable mineral entry until the selection is conveyed or released.

With no areas withdrawn from mining, the potential for impacts on subsistence resources would be greater under this alternative. Opening areas to mining in the vicinity of the Dalton Highway would also increase the potential for impacts on subsistence resources and users. This is due to the availability of land accessible to a transportation corridor coupled with the fact that there are areas of medium to high locatable mineral potential in the region. The communities of Coldfoot and Wiseman have the greatest potential to be affected.

If mining were to occur in waterbodies where fish are harvested for subsistence purposes–the Middle and South Fork Koyukuk rivers and Jim River—the residents of Coldfoot, Wiseman, and other communities downriver on the Koyukuk River could experience impacts on the abundance and availability of fish. This would result from fragmentation, degradation, or elimination of habitat and displacement of species.

To mitigate these impacts on BLM-managed lands, locatable mineral and mineral material exploration and development would include mining and reclamation plans. These plans would comply with laws, regulations, and BLM policy with the intent to maintain functionality of nearby soils, vegetation, wetlands, riparian areas, wildlife habitat and fisheries. **Table 2-24**: Locatable Minerals and **Table 2-25**: Mineral Materials (**Chapter 2**,) and Aquatic and Riparian Resource Desired Conditions and Objectives (**Appendix H**) provide detailed management actions required of notice and plan level operations and salable minerals permits.

On lands conveyed to the State of Alaska after the revocation of PLO 5150, locatable and mineral material exploration and development would not have to adhere to BLM policy or Desired Conditions and Objectives

in **Appendix H**; however, on these lands, they would be expected to comply with State and federal laws and regulations. This would maintain fish and wildlife habitat similarly to those on BLM-managed lands. Given this mitigation, impacts are anticipated to be minor and would not significantly limit or reduce fish and wildlife availability or abundance. Access to important subsistence use areas is not blocked or prohibited at authorized mining operations; therefore, impacts on access would be negligible.

Effects from lands, realty, and utility corridor management decisions

Alternative C2 recommends full revocation of PLO 5150. Full revocation would apply to 651,000 acres of subsistence use areas in the inner and outer PLO 5150 corridor, 538,000 acres of Priority 1 and 2 State top-filed lands would become state selected lands. If these lands were conveyed, which the BLM believes is likely to occur within 10 years for Priority 1 and 2 lands, subsistence users, no longer able to hunt and fish under federal regulations, would be subject to statutory and regulatory restrictions under State law. This would include prohibitions on using firearms within 5 miles of the Dalton Highway utility corridor and restrictions on use of vehicles for hunting and game retrieval on State lands. Priority 3 and 4 selections are not expected to be conveyed during the life of this plan; instead, they are expected to remain selected through the life of the plan, resulting in the same net effect in the context of subsistence uses.

The recommended revocation of PLO 5150 would impact residents of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, Stevens Village, Wiseman, and Coldfoot. Traditional means of accessing, harvesting, and transporting subsistence resources would be eliminated under Alternative C2, as both the inner and outer corridor would be subject to Alaska State Statutes 19.40.210 and 16.05.78, and State regulations 5 AAC 92.530(7)(B) and (C). Impacts described in **R.2.2.1** items 1) through 4) would be exacerbated under Alternative C2, as follows:

- Coldfoot and Wiseman residents would not be able to use snowmachines on all lands adjacent to their communities, including along the Nolan Road, in the Wiseman Creek and Hammond River drainages, or within other overland areas adjacent to the corridor. Residents would not be able to use off-road vehicles to access traplines or important hunting and fishing areas or collect firewood in traditionally used areas. Such a limitation would constitute extensive interference with access.
- Coldfoot and Wiseman residents would not be able to use highway vehicles on the Nolan, Wiseman, or other roads to access traditional moose, sheep, and other subsistence use areas. Wiseman residents would be legally prohibited from transporting harvested resources to their homes in Wiseman. Such a limitation would constitute extensive interference with access.
- Residents of these communities would not be able to use firearms within 5 miles of the Dalton Highway. Their ability to harvest moose, sheep, and other big game would be substantially inhibited. The restrictions on the use of firearms would likely increase the cost of living to residents in these communities by increasing the time or amount of effort spent hunting. Such a limitation would constitute extensive interference with access.
- Residents of these communities would not be able to hunt or fish under federal regulations on all lands adjacent to their communities. Such a limitation could constitute extensive interference with access.

Alternative C2 recommends full revocation of 5,252,000 acres of ANCSA 17(d)(1) withdrawals. If accepted by the Secretary of the Interior, these revocations would make lands available for selection and appropriation under the public land laws. This will result in 1,003,000 acres of top-filed lands becoming effective State selections. The effects would be similar to Alternative B except over a larger area. The public land laws include the conveyance of land allotments to Alaska Native Vietnam era veterans under Section 1119 of the

John D. Dingell Jr, Conservation, Management, and Recreation Act and land to the State under the Statehood Act.

Under Alternative C2, 399,000 acres in subsistence use areas would be designated ROW avoidance areas. As in the other action Alternatives, Alternative C2 would include the Ambler, Dalton, and Umiat utility and transportation corridors. Designating these corridors facilitates collocation of ROW, access, and utility infrastructure. This would reduce dispersed impacts from multiple transportation and utility corridors and reduce overall surface disturbance; however, the 4,007,000 acres in subsistence use areas open to ROW location could cause habitat degradation and fragmentation and increase competition for resources if those ROWs were used to build structures, utilities, or transportation corridors. This may impact moose, caribou, and fish resources as these resources are typically the most heavily harvested resources in the planning area communities; however, impacts on the abundance or availability of fish, wildlife, or other subsistence resources on BLM-managed lands in the planning areas from ROW development would be negligible. Existing lands, realty, and utility corridor management does not impact the abundance or availability of subsistence resources.

Effects from recreation and visitor services management

The Dalton SRMA under Alternative C2 includes the same area as the Sukakpak Region SRMA and the Central Dalton SRMA under Alternative B. Impacts on subsistence would be the same as described in **Section R.2.2.1**.

Effects from travel and transportation management

Effects from recreation and visitor services on subsistence are the same as discussed in Alternative C1.

Effects from ACEC management decisions

Under Alternative C2, 0 acres of subsistence use areas would be managed as an RNA. This alternative manages for a smaller geographic area of ACECs and RNAs than Alternatives B or C1.

The effects under Alternative C2 are greater than those described under Alternatives B and C1. This is because of the decrease in acreage designated for ACEC or RNA management. The reduction in acres under Alternative C2 from Alternatives B and C1, requiring that surface-disturbing activities associated with mineral exploration and development in ACECs be conducted under an approved plan of operations (43 CFR 3809), could negatively impact subsistence resources. These potential impacts would be most pronounced in ACECs designated in areas with salmon and sheefish spawning under Alternatives B or C1 but not under Alternative C2. These negative impacts are anticipated to be localized and would not substantially impact abundance or availability of subsistence resources.

Important habitat for caribou and sheep would not be designated as ACECs under this alternative. Important caribou habitat would be delineated, and stipulations would be applied that would effectively mitigate potential impacts on this species; as a result, the abundance or availability of caribou would not be impacted. Important sheep habitat would not be delineated under Alternative C2; however, potential impacts on sheep would likely be effectively addressed and mitigated through site-specific National Environmental Policy Act analysis and would not impact sheep populations to the extent that the abundance, availability, or access to sheep would be significantly impacted.

R.2.4.2 Evaluation of the availability of other lands for the purpose sought to be achieved

The evaluation of the availability of other lands is identical to that described under Alternative A (see **R.2.1.2** above).

R.2.4.3 Evaluation of other alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes

The evaluation of other alternatives is similar to that described under Alternative A (see **R.2.1.3** above); however, of the alternatives analyzed in the CYRMP DEIS, Alternatives A, B, and C1 would reduce or eliminate the use of public lands needed for subsistence as compared to Alternative C2. PLO 5150 would not be lifted under Alternative A, thereby maintaining the disposition of public lands needed for subsistence purposes. PLO 5150 would not be lifted in the inner corridor under Alternatives B and C, thereby maintaining the disposition of a portion of public lands needed for subsistence purposes.

R.2.4.4 Findings

Alternative C2 would not result in a significant restriction in subsistence uses and would not have a disproportionate negative impact on the communities of Arctic Village, Galena, Hughes, Huslia, Kaltag, Koyukuk, Lake Minchumina, Manley Hot Springs, Minto, Nenana, Nuiqsut, Nulato, Rampart, Ruby, Tanana, and Venetie.

Alternative C2 may significantly restrict subsistence uses and would have a disproportionate negative effect on the communities of Alatna, Allakaket, Anaktuvuk Pass, Evansville, and Stevens Village, It may significantly restrict subsistence uses for the communities of Bettles, Coldfoot, and Wiseman due to potential reductions in the availability of and access to large mammals, fish, furbearers, firewood, and berries. A positive determination pursuant to ANILCA Section 810 is required.

R.2.5 Evaluation and Finding for Alternative D

R.2.5.1 Evaluation of the effect of use, occupancy, or disposition on subsistence uses and needs

Effects from energy and mineral management decisions

Alternative D focuses management on resource development. Over 99 percent of the subsistence use areas would be open to locatable minerals and all would be open to mineral material sales. Under this alternative, 18,000 acres (less than 1 percent) of subsistence use areas would be withdrawn from the mining laws or recommended for withdrawal from locatable mineral entry.

With all areas open to mining, the potential for impacts on subsistence resources would be highest under this alternative. Opening areas to mining in the vicinity of the Dalton Highway would increase the potential for impacts on subsistence resources and users. This is due to the availability of land accessible to a transportation corridor coupled with the fact that there are areas of medium to high locatable mineral potential in the region. The communities of Coldfoot and Wiseman, located in the Dalton Utility Corridor, have the greatest potential to be affected.

The abundance and availability of fish would be impacted for residents of Coldfoot and Wiseman and communities downriver on the Koyukuk River. Habitat would be fragmented, degraded, or eliminated and species would be displaced if mining were to occur in waterbodies that produce fish harvested for subsistence purposes: the Middle and South Fork Koyukuk rivers and Jim River. To mitigate these impacts, locatable mineral and mineral material exploration and development on BLM-managed lands include mining and reclamation plans that would comply with laws, regulations, and BLM policy. The intent is to maintain

functionality of nearby soils, vegetation, wetlands, riparian areas, wildlife habitat, and fisheries. **Table 2-24**: Locatable Minerals, and **Table 2-25**: Mineral Materials (**Chapter 2**), and Aquatic and Riparian Resource Desired Conditions and Objectives (**Appendix H**) provide detailed management actions required of notice and plan level operations and salable minerals permits.

On lands conveyed to the State of Alaska after the recommended revocation of PLO 5150, locatable and mineral material exploration and development would not have to adhere to BLM policy or Desired Conditions and Objectives in **Appendix H**; however, on these lands, they would be expected to comply with state and federal laws and regulations which would maintain fish and wildlife habitat similarly to those on BLM-managed lands. Given this mitigation, impacts are anticipated to be minor and not significantly limit or reduce fish and wildlife availability or abundance. Access to important subsistence use areas is not blocked or prohibited at authorized mining operations; therefore, impacts on access would be negligible.

Effects from lands, realty, and utility corridor management decisions

Alternative D recommends full revocation of PLO 5150, which would result in similar impacts on subsistence as described under Alternative C2. Alternative D recommends full revocation of 5,252,000 acres of ANCSA 17(d)(1) withdrawals. If accepted by the Secretary of the Interior, these revocations would make lands available for selection and appropriation under the public land laws. This will result in 1,003,000 acres of top-filed lands becoming effective State selections. The effects would be similar to Alternative C2. The public land laws include the conveyance of land allotments to Alaska Native Vietnam era veterans under Section 1119 of the John D. Dingell Jr, Conservation, Management, and Recreation Act and land to the State under the Statehood Act.

ROW impacts in Alternative D would be the same as described in Alternative C2.

Effects from recreation and visitor services management

Under Alternative D, there would be no backcountry conservation areas, extensive recreation management areas, or SRMAs. Established recreational sites such as campgrounds, waysides and visitor contact stations would exist but would not be managed as intensively for recreational activity. Potential impacts on wildlife, fish, and other subsistence resources, and potential impacts on subsistence user access, are similar to those described in Alternative A; therefore, impacts of recreation and visitor services management on subsistence would be minor under Alternative D. The recommended revocation of PLO 5150 would allow State of Alaska top-filed lands to become valid selections. Lands conveyed during the life of the plan would change the pattern of land status and recreation and subsistence management in the Dalton Utility Corridor.

Effects from travel and transportation management

Travel and transportation management would not affect the abundance or availability of fish, wildlife, or other subsistence resources under Alternative D.

Seasonal or summer closures are not proposed under Alternative D (see **Maps 2.54-2.55**, **Appendix A**). Travel and transportation management would not affect access to subsistence resources under Alternative D.

Effects from ACEC management decisions

Under Alternative D, no areas would be managed as an RNA or ACEC. The effects under Alternative D are greater than those described under Alternatives B, C1, and C2, because of the lack of acreage designated for ACEC or RNA management. The elimination of ACECs and RNAs requiring that surface-disturbing activities associated with mineral exploration and development in ACECs be conducted under an approved plan of operations (43 CFR, Part 3809) has the potential to negatively impact subsistence resources. These potential

impacts would be most pronounced in ACECs designated in areas with salmon and sheefish spawning included in Alternative B or C1 but not in Alternative C2 or D. These negative impacts are anticipated to be localized and not substantially impact abundance or availability of subsistence resources. Important habitat for caribou and sheep would not be designated as ACECs under this alternative. Important sheep and habitat would not be delineated under Alternative D; however, potential impacts on sheep and caribou would likely be effectively addressed and mitigated through site specific National Environmental Policy Act and would not impact sheep or caribou populations to the extent that the abundance, availability, or access to these game species would be significantly impacted.

R.2.5.2 Evaluation of the availability of other lands for the purpose sought to be achieved

The evaluation of the availability of other lands is identical to that described under Alternative A (see **R.2.1.2** above).

R.2.5.3 Evaluation of other alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes

The evaluation of other alternatives is similar to that described under Alternative A (see **R.2.1.3** above); however, of the alternatives analyzed in the CYRMP DEIS, Alternatives A, B, C1, and C2 would reduce or eliminate the use of public lands needed for subsistence as compared to Alternatives D. PLO 5150 would not be lifted under Alternative A, thereby maintaining the disposition of public lands needed for subsistence purposes. PLO 5150 would not be lifted in the inner corridor under Alternatives B, C1, and C2, thereby maintaining the disposition of a portion of public lands needed for subsistence purposes.

R.2.5.4 Findings

Alternative D may significantly restrict subsistence uses and would have a disproportionate negative effect on the communities of Alatna, Allakaket, Anaktuvuk Pass, Arctic Village, Bettles, Coldfoot, Evansville, Galena, Hughes, Huslia, Kaltag, Koyukuk, Lake Minchumina, Manley Hot Springs, Minto, Nenana, Nuiqsut, Nulato, Rampart, Ruby, Stevens Village, Tanana, and Venetie due to potential reductions in the availability of and access to large mammals, fish, furbearers, firewood, and berries. Alternative D may significantly restrict subsistence uses for the communities of Bettles, Coldfoot, and Wiseman. A positive determination pursuant to ANILCA Section 810 is required.

R.2.6 Evaluation and Finding for Alternative E (Proposed Plan)

R.2.6.1 Evaluation of the effect of use, occupancy, or disposition on subsistence uses and needs

Effects from energy and mineral management decisions

Under Alternative E, 3,109,000 acres (71 percent) of the lands identified as subsistence use areas would be open to locatable mineral entry, and 1,298,000acres would remain withdrawn from all locatable mineral entry (29 percent), 392,000 acres (9 percent) would be open to fluid leasable minerals, and 4,090,000 acres (93 percent) would be open to mineral material sales. The lands open to energy and mineral development would be less than Alternative A, and portions of the lands would be closed to development to protect important habitat for subsistence fish and wildlife resources. Significant impacts from energy and mineral management to subsistence resources or resource use would not be anticipated.

Effects from lands, realty, and utility corridor management decisions

The PLO 5150 withdrawal would remain in place under Alternative E. Dalton Highway inner and outer corridor lands would continue to be managed as unencumbered federal land. Qualified rural residents would be subject to federal hunting and fishing regulations on these lands and would access subsistence resources using traditional means defined in ANILCA. Access to traditional hunting, fishing, and gathering areas would be maintained. Alternative E would recommend that the Secretary revoke in part 11,115,000 acres of ANCSA 17(d)(1) PLOs. This would allow for selection by Alaska Native Vietnam-era veterans where the PLOs currently do not. This would result in land conveyance out of federal administration, though not on a scale likely to cause a significant restriction in federally qualified subsistence uses.

Under Alternative E, 639,000 (14 percent) acres of lands identified as subsistence use areas would be designated as ROW avoidance areas and less than 1 percent would be designated as ROW exclusion. Infrastructure development within the Ambler Road and Dalton utility corridor ROWs is foreseeable within the life of the plan for all alternatives. ROW development could cause habitat degradation and fragmentation and increase competition for resources if those ROWs were used to build structures, utilities, or transportation corridors. This may impact moose, caribou, and fish resources as these resources are typically the most heavily harvested resources by communities in the planning area; however, impacts on the abundance or availability of fish, wildlife, or other subsistence resources on BLM-managed lands from ROW development on BLM-managed lands in the planning areas would be negligible. Existing lands, realty, and utility corridor management do not impact the abundance or availability of subsistence resources.

Effects from recreation and visitor services management

Alternative E would increase the targeted recreation opportunities available in the planning area and provide more managed recreational variety relative to Alternative A. As with Alternative A, most recreation and accompanying visitor services in the planning area would be focused along the Dalton Highway. In addition, 201,000 acres (31 percent) of the subsistence use areas would be managed as the Dalton Corridor Backcountry Conservation Area. This area, though potentially attracting more recreational users, would be managed to retain resource habitat in its current state.

Impacts on subsistence resources would be similar to Alternative A. Impacts of recreation and visitor services management on abundance or availability of fish, wildlife, or other subsistence resources would be minor under Alternative E. Access to important subsistence use areas would not be impeded or prohibited by recreation and visitor services management under Alternative E.

Effects from travel and transportation management

Access to subsistence resources could be impacted by summer OHV restrictions in the Sulukna River ACEC and by summer closures which would prohibit the use of OHVs in the Accomplishment Creek, Indian River, Klikhtentotzna Creek, Sethkokna River, South Fork Koyukuk River, Toolik Lake, Upper Teedriinjik (Chandalar) River, and Wheeler Creek ACECs (see **Map 2.64**, **Map 2.65**, and **Map 2.66**, **Appendix A**) during these time frames. Legal restrictions would limit the ability to access portions of these subsistence use areas during the summer.

These areas overlap subsistence use areas for residents of Bettles, Ruby, Ambler, Tanana, Hughes, Allakaket, Alatna, Anaktuvuk Pass, Wiseman, and Coldfoot. As described under Alternative B, access to these areas is predominately by river during summer or via snowmachine in the winter (Brown et al. 2016, Holen et al. 2012). Overland access via OHV in summer and fall is uncommon and access to the majority of these communities' subsistence resources would not be restricted.

Effects from ACEC management decisions

Under Alternative E, 1,172,000 acres (27 percent) of community subsistence areas would be managed as ACECs or RNAs. This alternative provides the second largest geographic area of ACECs. Protection of habitat would benefit fish, wildlife and vegetation harvested by subsistence users to a broader extent than Alternative A.

Access to subsistence resources could be affected by seasonal limitations on OHV travel under management actions for specific ACECs under Alternative E. OHV restrictions are expected to have a minor effect on subsistence. Harvest of timber and woody vegetation would be prohibited in the Kanuti Hot Springs and the Sukakpak/Snowden ACECs. These areas are not important subsistence vegetation harvest areas. Impacts to vegetation harvest would not occur.

R.2.6.2 Evaluation of the availability of other lands for the purpose sought to be achieved

Under Alternative E, the evaluation of the availability of other lands is the same as that described under Alternative A (see **R.2.1.2** above), except for the recommendation that the Secretary revoke in part 11,115,000 acres of ANCSA 17(d)(1) PLOs. This would allow for selection by Alaska Native Vietnam-era veterans where the PLOs currently do not.

R.2.6.3 Evaluation of other alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes

The evaluation of other alternatives is similar to that described under Alternative A (see R.2.1.3 above).

R.2.6.4 Findings

Alternative E would not result in a significant restriction in subsistence uses and would not have a disproportionate negative impact on environmental justice communities. A positive determination pursuant to ANILCA Section 810 is not required.

R.2.7 Evaluation and Finding for the Cumulative Case

R.2.7.1 Evaluation of the effect of use, occupancy, or disposition on subsistence uses and needs

Effects from energy and mineral management decisions

Locatable and saleable mining is anticipated to continue in the planning area over the life of the plan. The extent of mining activity for locatable minerals is difficult to predict because exploration and development is dependent on precious metal prices. Development is most likely to occur in high and moderate potential areas near road systems. Planning area communities with the greatest potential to be impacted would include those with subsistence use areas in the Dalton Highway utility corridor and downstream communities. Mineral material development will continue to support road and ROW maintenance needs. New projects requiring mineral materials would likely use existing pits where economically feasible. As with locatable minerals, mining is expected to occur along existing road systems. ROW projects located outside the Dalton Highway would require opening new mineral material sites. Cumulative impacts on fisheries and wildlife resources are described in **Chapter 3**, **Section 3.2.7** and **Section 3.2.6**. Additional mining activity could impact fish and wildlife through direct habitat loss, displacement, and increased human activity, including hunting and trapping. Potential rare earth mining in the Ray Mountains region could impact the Ray Mountains caribou herd range use. Current and future mining activity may lead to increased degradation of habitat and water quality through run-off, changes in nutrient and macroinvertebrate abundance and reduced spawning/rearing habitat for fish.

An increase in mining activities on non-BLM-managed lands or adjacent to the planning area could contribute to cumulative impacts on subsistence resources and users to varying degrees. The Ambler Road EIS ANILCA 810 Evaluation found that the reasonably foreseeable future action of mine development in the Ambler Mining District could negatively impact subsistence resources. This included direct and indirect effects from mining on fish, vegetation, and wildlife which may result in a significant restriction to subsistence resources and may significantly reduce or limit the abundance, availability, or access to subsistence resources.

Effects from lands, realty, and utility corridor management decisions

Current and future lands, realty, and utility corridor management decisions that could impact subsistence users and resources in the planning area include development of additional utility or transportation corridors and the recommended revocation of PLO 5150.

Effects from lands, realty, and utility corridor management decisions due to recommending a partial or full revocation of PLO 5150 as proposed under Alternatives B, C1, C2, and D would substantially interfere with access to subsistence resources as described in **Sections R.2.2.1**, **R.2.3.1**, and **R.2.4.1** above. A good example is the western zone of the Stevens Village customary and traditional use area (Stevens Village Council 1991), which intersects with PLO 5150. The impacts on federal subsistence priority access and harvest provisions from a recommended full or partial revocation of PLO 5150 as under Alternatives B, C1, C2, and D would be detrimental to the stated goal of the plan "to ensure the quality of life in Stevens Village is not jeopardized or compromised". This effect would be felt most strongly under full revocation as recommended under Alternatives C2 and D. Access to subsistence resources would remain intact due to the retention of the PLO under Alternatives A and E.

Development of infrastructure within authorized ROWs in the planning area are expected to continue or increase over the life of the plan. Development is most likely to occur in designated ROWs and in areas with energy, locatable, and mineral material development. Cumulative impacts on fisheries and wildlife resources are described in **Chapter 3**, **Section 3.2.7** and **Section 3.2.6**. These include habitat loss, fragmentation, and degradation, and disturbance of or direct mortality to resources. The Ambler Road ROW intersects the proposed hunting areas of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Coldfoot, Evansville, and Wiseman on non-BLM-managed lands. The ROW also crosses subsistence fishing areas of Evansville and Bettles on non-BLM-managed lands. The Ambler Road EIS ANILCA 810 Evaluation found that road construction and operations may significantly restrict subsistence uses for Alatna, Allakaket, Anaktuvuk Pass, Bettles, Coldfoot, Evansville, and Wiseman due to a potential decrease in abundance and availability of caribou, fish, and vegetation.

Effects from recreation and visitor services management

The demand for recreation opportunities is expected to increase during the life of the plan. Recreational use will continue to increase along established routes, particularly the Dalton Highway. Demand for remote recreational access will increase to a lesser extent. An increase in recreational activities in or adjacent to the planning area would contribute to cumulative impacts on subsistence resources and users to varying degrees. Planning area communities with the greatest potential to be impacted would include those with subsistence use areas in the Dalton Utility Corridor. Wiseman and Coldfoot would be most affected since they are road accessible.

Given past and current recreation management and future management scenarios presented in this plan, their location in relation to subsistence use, and management actions and mitigation measures proposed in this plan, recreation management is not expected to substantially reduce the opportunity to use subsistence resources.

Impacts from recreation and visitor services management would not significantly reduce or limit the abundance, availability, or access to subsistence resources for communities assessed in this evaluation.

Effects from travel and transportation management

Current and future travel and transportation actions would primarily consist of highway (Elliott and Dalton) and infrastructure improvements in and around the planning area. These activities would not significantly reduce or limit the abundance, availability, or access to subsistence resources.

Effects from ACEC management decisions

Under the Cumulative Case, a variable number of acres would be designated and managed as RNAs or ACECs depending on alternative. All ACECs and RNAs include the requirement that surface-disturbing activities associated with mineral exploration and development in ACECs be conducted under an approved plan of operations (43 CFR, Part 3809). This requirement allows additional assessment of potential impacts on resources, some of which may be harvested by subsistence users. Alternatives B and E, with 4,035,000 and 3,611,000 acres respectively under ACEC or RNA management, would have the most acres with these protections. Alternatives A, C1, C2, and D would have 1,751,000 acres, 418,000 acres, 77,000 acres, and 0 acres respectively designated as ACECs/RNAs.

R.2.7.2 Evaluation of the availability of other lands for the purpose sought to be achieved

See **R.2.1.2**.

R.2.7.3 Evaluation of other alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes

See **R.2.1.3**.

R.2.7.4 Findings

The cumulative case, when taken in conjunction with Alternatives A and E, would not significantly restrict subsistence uses and would not have a disproportionate negative effect on environmental justice communities.

The cumulative case, when taken in conjunction with Alternative B, would not result in a significant restriction in subsistence uses and would not have a disproportionate negative impact on the communities of Alatna Allakaket, Anaktuvuk Pass, Arctic Village, Evansville, Galena, Hughes, Huslia, Kaltag, Koyukuk, Lake Minchumina, Manley Hot Springs, Minto, Nenana, Nuiqsut, Nulato, Rampart, Ruby, Stevens Village, Tanana, and Venetie. It would not significantly restrict subsistence uses for Bettles. It may significantly restrict subsistence uses for the communities of Coldfoot and Wiseman.

The cumulative case, when taken in conjunction with Alternative C1, would not significantly restrict subsistence uses and would not have a disproportionate negative impact on the communities of Alatna, Allakaket, Anaktuvuk Pass, Arctic Villages, Evansville, Galena, Hughes, Huslia, Kaltag, Koyukuk, Lake Minchumina, Manley Hot Springs, Minto, Nenana, Nuiqsut, Nulato, Rampart, Ruby, Stevens Village, Tanana, and Venetie. It would not significantly restrict subsistence uses for Bettles. It would significantly restrict subsistence uses for the communities of Coldfoot and Wiseman.

The cumulative case, when taken in conjunction with Alternative C2, may significantly restrict subsistence uses and would have a disproportionate and negative effect on the environmental justice communities of Alatna, Allakaket, Anaktuvuk Pass, Evansville, and Stevens Village, and may significantly restrict subsistence uses for the non-environmental justice communities of Bettles, Coldfoot, and Wiseman.

The cumulative case, when taken in conjunction with Alternative D may significantly restrict subsistence uses and would have a disproportionate negative effect on the environmental justice communities of Alatna, Allakaket, Anaktuvuk Pass, Arctic Village, Evansville, Galena, Hughes, Huslia, Kaltag, Koyukuk, Lake Minchumina, Manley Hot Springs, Minto, Nenana, Nuiqsut, Nulato, Rampart, Ruby, Stevens Village, Tanana, and Venetie, and may significantly restrict subsistence uses for the non-environmental justice communities of Bettles, Coldfoot, and Wiseman.

The cumulative case, when taken in conjunction with Alternative E, would not significantly restrict subsistence uses and would not have a disproportionate negative impact on the communities of Alatna, Allakaket, Anaktuvuk Pass, Arctic Villages, Evansville, Galena, Hughes, Huslia, Kaltag, Koyukuk, Lake Minchumina, Manley Hot Springs, Minto, Nenana, Nuiqsut, Nulato, Rampart, Ruby, Stevens Village, Tanana, and Venetie. It would not significantly restrict subsistence uses for Bettles. It would significantly restrict subsistence uses for the communities of Coldfoot and Wiseman.

R.3 NOTICE AND HEARINGS

ANILCA Section 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 Section 810(a)(1) and (2). The BLM provided notice in the Federal Register that it made positive findings pursuant to ANILCA Section 810 that Alternatives B, C1, C2, D, E, and the Cumulative Case presented in the CYRMP DEIS meet the "may significantly restrict" threshold. Public hearings were held virtually via Zoom on January 28, February 4, and February 9, 2021. The hearings provided an opportunity for testimony to residents of the potentially affected communities of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Coldfoot, Evansville, and Wiseman, as well as other communities throughout the planning area. Notices of these hearings were provided in the Federal Register.

Rural residents that participated in the hearings talked about the degree to which they depend on resources in the region and emphasized the importance of working with federally recognized tribes. They described the current status of game populations and expressed the need for their communities to have access to safe and reliable food sources. Residents voiced concerns that resource development could contaminate rivers and impact subsistence fish resources. Participants expressed concern regarding the virtual format of the public meetings and hearings and the time allotted for speaking. Multiple participants voiced opposition to the recommendation to lift PLO 5150 under the plan and opposed alternatives that included this recommendation. They described the impact that this recommendation would have on their ability to access traditional hunting, fishing, and gathering areas. They provided detailed examples of how changes in legal access to traditional lands would impact their subsistence practices. Much of this discussion and testimony during the hearings confirmed the impacts documented in the CY RMP/DEIS.

Feedback received during the ANILCA 810 hearings, along with consideration of public comments, and further consideration of impacts to environmental justice communities documented in the EIS (Section 3.5.1) led to modifications of findings for some alternatives to more accurately depict impacts from RMP alternatives in this analysis.

R.4 SUBSISTENCE DETERMINATIONS UNDER ANILCA SECTION 810(A)(3)(A), (B), AND (C)

ANILCA Section 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 Section 810(a)(1)

and (2), and makes the three determinations required by ANILCA Section 810(a)(3). 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. 3120(a)(3)(A), (B), and (C)].

The BLM found that Alternatives B, C1, C2, and D, and the Cumulative Case may significantly restrict subsistence uses. Therefore, the BLM conducted the notice and hearing procedures required by ANILCA Section 810 (a)(1) and (2) in conjunction with release of the Draft RMP/EIS to solicit public comment from the potentially affected communities.

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

R.4.1 Significant restriction of subsistence use is necessary, consistent with sound management principles for the utilization of public lands

As defined by the FLPMA of 1976, as amended, public lands are those federally owned lands and interest in lands (e.g., federally owned mineral estate) that are administered by the Secretary of the Interior, specifically through BLM. This includes lands selected, but not yet conveyed, to the State of Alaska and Native corporations and villages.

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

After considering a broad range of alternatives, a proposed plan was developed that will fulfill the multiple use mission of BLM. Through the completion of this RMP/EIS, the BLM proposes to provide a comprehensive land use plan that will guide management of the public lands and interests administered by the Central Yukon Field Office.

The BLM has selected Alternative E as the Proposed Plan for the RMP. BLM has determined that the significant restriction that may occur under the proposed RMP, when considered together with all the possible impacts of the cumulative case, is necessary, consistent with the sound management principles for the use of these public lands, and necessary for BLM to fulfill the management goals for the planning area as guided by the statutory directives in FLPMA and other applicable laws.

R.4.2 The proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition

BLM has determined that the proposed RMP involves the minimal amount of public lands necessary to accomplish the purpose of the proposed action: the creation of an inclusive, comprehensive plan that provides clear direction to both BLM and the public on how BLM lands and resources in Central Yukon planning area should be managed.

R.4.3 Reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions

When BLM began its NEPA scoping process for the CY RMP, it internally identified subsistence use as one of the major issues to be addressed based on scoping comments, consultation, and input from public meetings. This was reinforced by comments received on the Draft RMP/EIS. The results of public scoping meetings, consultation with tribal governments, and meetings and correspondence with local governments were used to craft the proposed RMP. In addition, BLM took into consideration comments from rural villages and individuals during the ANILCA 810 subsistence hearings. This information contributed to the development of Alternative E, which would retain PLO 5150 lands in federal ownership and maintain subsistence users' legal access to important resources. Alternative E was adopted as the Proposed Plan and was recognized as a clear and reasonable step that would minimize impacts to subsistence use.

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

R.5 CONCLUSION

The BLM has determined that, after consideration of all alternatives, subsistence evaluations, and public hearings, such a significant restriction of subsistence uses is necessary and consistent with sound management principles for the utilization of this land, and that Alternative E will involve the minimal amount of public lands necessary to accomplish the approved RMP. Reasonable steps have been taken to minimize the adverse impacts upon subsistence uses and resources arising from this action.

R.6 REFERENCES

_____. 2020. Central Yukon Resource Management Plan subsistence and socio-economic data and reports used. Central Yukon Field Office. October 2020.

Brown, C. L., N. M. Braem, J. L. Kostick, A. Trainor, L. J. Slayton, D. M. Runfola, E. H. Mikow, H. Ikuta, C. R. McDevitt, J. Park, and J. J. Simon. 2016. Harvests and uses of wild resources of 4 Interior Alaska communities and 3 Arctic Alaska communities. Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 426. Fairbanks, Alaska.

Holen, D., S. M. Hazell, and D. S. Kostner, editors. 2012. Subsistence harvests and uses of wild resources by communities in the eastern Interior of Alaska, 2011. Alaska Department of Fish and Game, Division of Subsistence. Technical Paper No. 372. Anchorage, Alaska.

Stevens Village Council. 1991. A Comprehensive Land Use Plan For The Traditional Lands of Stevens Village. Internet website: commerce.alaska.gov/dcra/admin/Download/GetFile/?documentUID=337ddcbe-3bb4-4443-af76-610d6a9b8489&isPdf=true

U.S. Department of the Interior. 2001. Bureau of Land Management and Office of the Solicitor (editors). The Federal Land Policy and Management Act, as amended. U.S. Department of the Interior, Bureau of Land Management Office of Public Affairs, Washington, D.C. 69 pp.

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Appendix S
Social and Economic Conditions

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ACRONYMS AND ABBREVIATIONS

	Full Phrase
ACEC	areas of critical environmental concern
ADFG	Alaska Department of Fish and Game
AMS	analysis of the management situation
BLM	Bureau of Land Management
EIS	environmental impact statement
OHV	off-highway vehicle
PLO	public land order
RFDS	reasonably foreseeable development scenario
RMP	resource management plan
ROW	right-of-way

Appendix S. Social and Economic Conditions

S.1 SUMMARY

This appendix describes the potential impacts and methodology for assessing impacts from proposed management actions on social and economic conditions in the planning area. As described in the analysis of management situation (AMS), the planning area contains non-subsistence use communities and subsistence use rural communities as defined by the Joint Board of Fisheries and Game. The geography, topography, geology, climate, flora, fauna, history, and cultural systems of the planning area influence the economic character of planning area communities in combination with applicable law, policy, regulation, and land management planning decisions. Management decisions under consideration concerning the status of public land orders (PLOs) that affect the amount and distribution of federal lands subject to federal subsistence regulations, the guidance on utility and transportation corridors, and travel management decisions that may limit or restrict access to particular areas may influence the distribution, magnitude, and intensity of economic impacts on communities in the planning area. Additional information is available in AMS Section 2.4, Social and Economic Conditions, at: https://eplanning.blm.gov/public_projects/lup/35315/72940/80089/CYRMP_AMS_all_April_2016_Final.pdf

S.2 METHODS OF ANALYSIS

This analysis considers the spatial distribution of impacts on the social and economic character of communities in the planning area. The planning area overlaps portions of the Northwest Arctic Borough, the North Slope Borough, the Denali Borough, the Fairbanks North Star Borough, and the Southeast Fairbanks Census Area. The analysis considers impacts across 24 subsistence use communities and seven non-subsistence use communities, including Fairbanks, Ester, Healy, Big Delta, Delta Junction, McKinley Park, and North Pole. The analysis consists of an evaluation of the management decisions that could affect both market values (i.e., mineral development, infrastructure and transportation, and recreation and tourism) that affect jobs and labor income and nonmarket values (i.e., subsistence patterns) that affect the cost of living for households in the planning area.

Climate Change

Climate change may affect the rural economy by increasing uncertainty and risk related to participation in subsistence practices. As described in the subsistence analysis of this environmental impact statement (EIS), climate change has created unpredictable ice conditions on rivers and lakes, and across the tundra. This has increased the risk from travel to subsistence practitioners due to unpredictable river breakup and freeze-ups, changing rainy seasons, permafrost thaw, and erosion. As noted in the wildlife section of this EIS, climate change may result in changes to vegetation communities, species ranges, and species composition, many of which are important to subsistence livelihoods. The increased uncertainty and risk in procuring subsistence resources may result in increased costs related to time, effort, and fuel needed to procure subsistence needs.

Nature and Types of Impacts

Eighteen of the 24 communities described in the AMS exceeded the national poverty rate. Average costs of living in rural Alaska are much higher than the nation's due to high transportation costs; therefore, poverty

rates may not be a fair reflection of economic well-being. In addition, the market economy is highly limited in its size and diversity in rural communities in the planning area. While jobs and labor income provide an important role, it is a limited role in respect to the role subsistence provisioning plays in supporting rural Alaskan livelihoods. The analysis here considers how management decisions may influence the economic well-being of residents in the planning area in respect to the distribution, intensity, and magnitude of change in terms of economic development by industry, jobs, and labor income and the impacts on the cost of living in response to impacts on subsistence practices.

The remote rural nature of the majority of the planning area substantially influences the size and structure of the communities' economies. Rural Alaska communities rely on a mixed economy that is comprised of a hunting, fishing, and gathering component and a cash component. Cash is used not only to complement subsistence harvests through the purchase of food, clothing, and shelter, but it also is used to support participation in the subsistence economy. Purchases of fuel, equipment, and tools, such as snowmachines, all-terrain vehicles, fishing nets, guns, and rain gear, are used to support subsistence activities (ADFG Division of Subsistence 2019). Therefore, economic impacts are not limited to jobs and income; they also include the subsistence economy and lifestyle.

The Alaska Department of Fish and Game (ADFG) Division of Subsistence reports that households with higher cash incomes also have greater subsistence harvests (ADFG Division of Subsistence 2019). Wolfe et al. (2010) termed these high-income households with high subsistence productivity "super-households." Super-households produce more than their household needs and often distribute the excess to low-income households and individuals in need, typically single mothers and elders (Wolfe et al. 2010). Sharing is a key component of the subsistence economy that guards against risks of economic insecurity within the community (Wolfe et al. 2010). Therefore, management decisions that affect when and where motorized travel is allowed, such as travel management limitations and restrictions and decisions affecting where federal subsistence regulations apply, may affect patterns of sharing and trade. These impacts may, in turn, affect the cost of living among the most economically disadvantaged households in the communities of Wiseman, Coldfoot, Allakaket, Alatna, Bettles, Evansville, Stevens Village, Rampart, Tanana, and Ruby.

Food security is of interest when considering socioeconomic well-being. Food security is defined as "when all people, at all times, have physical and economic access to sufficient safe and nutritious food to meet their dietary needs and food preferences for a healthy and active life" (Pinstrup-Andersen 2009). A 2010 study (Brown et al. 2010), the first study assessing species collected and measuring food security levels through voluntary community household surveys in five western Interior Alaska communities, was developed to gain a greater understanding of regional subsistence patterns. The study found that there are varying levels of food security among communities. Between 11 and 44 percent of households in the five communities surveyed experienced low to very low food security levels and were classified as food insecure. Conditions related to food insecurity were typically seasonal. The redistribution of household resources through sharing networks was one of the main strategies employed to guard against risks of food insecurity due to fluctuating subsistence harvests and other pressures. Management decisions that affect subsistence harvest, distribution patterns, and the overall cost of living, such as in respect to fuel costs, which may reduce monetary resources for purchasing food, may influence conditions related to food security in the Western Interior rural Alaska communities.

Management decisions that would require increased distances traveled to procure subsistence resources would increase the household cost of living. Such management decisions are those that affect the abundance of subsistence resources by community and those that affect where and when motorized travel is allowed. These interactions are more fully described in the two following paragraphs.

Fuel costs are a pivotal influence on well-being in mixed cash-subsistence economies. Fuel costs affect the cost of participating in both the subsistence and cash components of the economy. The high cost of fuel in rural communities also contributes to high costs for food and heat purchased in markets. High fuel prices also influence subsistence harvest patterns by encouraging subsistence harvests to occur in greater proximity to communities. One study on fuel costs' impacts on Alaska subsistence communities found that reducing the number of trips they took, using more fuel-efficient vehicles, sharing fuel costs, and making subsistence trips multipurpose were other adaptation strategies communities used (Brinkman et al. 2014). The study also found that of the 178 people from 8 communities surveyed, 85 percent reported not paying bills or foregoing the purchase of basic supplies so they could purchase fuel (Brinkman et al. 2014). Fuel costs affect the economic well-being of households by limiting their ability to participate in the subsistence economy or their ability to cover the cost of basic household needs. Management decisions that result in restrictions on where and when motorized travel is allowed may increase distances traveled to access subsistence resources, which increases the fuel cost burden and household cost of living.

The subsistence lifestyle is an integral part of the ecology, culture, and identity of the people and communities in the planning area. For rural Alaska communities in the planning area, subsistence resources provide the primary basis for well-being for which there is no reasonable market substitute (Wolfe 2004). Actions that may influence habitat for fish and wildlife populations or affect pressure on subsistence resources may also increase the cost of living and social pressures on subsistence households and those who depend on shared resources. Management decisions that affect participation and success rates associated with the subsistence sector are designations that may affect wildlife and fish habitat and may affect the amount of hunting and fishing competition for wildlife and fish. Such decisions would include the designation of areas of critical environmental concern (ACECs), travel restrictions, right-of-way (ROW) exclusion areas, plan direction on development related to utility and transportation corridors, and the status of PLO 5150 in the Dalton Utility Corridor.

While jobs and labor income provide an important role, it is a limited role in respect to the role subsistence provisioning plays in supporting rural Alaskan livelihoods. Because jobs and labor income in private sectors are very limited in rural villages, potential economic development opportunities, such as mining, tourism, and supporting industries, including construction, infrastructure, and transportation, are valued. However, there is typically conflict associated with these opportunities because of their potential to affect subsistence resources and access. The diverse viewpoints of community residents are reflected in public comments received during the preparation of this resource management plan (RMP). They are exemplified by comments provided below taken from the preliminary alternative summary (BLM 2017) and the scoping report (BLM 2015):

> Our kids/grandkids need jobs. If resources can be properly developed and still protect resources, then we are all for it. Creating jobs and making sure there is a way to keep people employed. Most of our interior villages are a dying commodity. We need to be aware of that and make decisions now not to close up those potential opportunities.
>
> The area under consideration in this resource management plan surrounds many rural communities. Resource development in the area could provide economic benefits to the region where well-paying jobs are scarce, as well as improved or added infrastructure and access to areas for multiple use.
>
> Both Alaska Natives and surrounding communities depend upon the bounty of the lands and waters for their livelihoods as commercial fisherman, and for subsistence, cultural and traditional practices. Development projects including mines, roads and associated infrastructure could pose significant

negative impacts on surrounding communities, including water degradation and reduced access to subsistence resources.

Changes in the availability of subsistence resources has a profound impact on the sharing of resources from village to village. Throughout history, tribes in the Central Yukon have established a complex social network of sharing resources. Further impacts to the availability of resources will undoubtedly change the character for these networks and relationship between tribes throughout the region.

One of the questions describing the subsistence issue in pre-planning documents is "How can the Bureau of Land Management [BLM] protect resources that are important to maintaining a subsistence lifestyle?" This implies that resources are currently not protected or are being damaged. The more appropriate question for the RMP is: "Are subsistence resources being damaged and is additional protection needed?" This is a resource management concern, not solely a subsistence concern.

The subsistence way of life in many Alaska Native villages is augmented with activities supporting cash economy transactions. Alaska Native villages, in partnership with Alaska Native corporations and other business interests, are considering a variety of economic development opportunities. Most Alaska Native villages have decided for themselves that large-scale hard rock mining is not the direction they would like to go and are, primarily, concerned with the long-term sustainability of their communities.

Only seven[1] of the 31 communities considered in this analysis are designated as non-subsistence use area communities by the Joint Board of Fisheries and Game. Non-subsistence use areas are defined based on 12 criteria used to determine whether subsistence is a principal characteristic of the economy, culture, and way of life (ADFG Joint Fish and Game Board 2019). Non-subsistence use areas are not open for subsistence activities under state law; however, management decisions may affect nonmarket values for non-subsistence communities. Such impacts may be experienced in the form of impacts on recreation opportunities, such as sport hunting and fishing, or impacts on interregional trade facilitated through kinship networks. In particular, low-income households in non-subsistence communities may be vulnerable to indirect impacts on subsistence redistribution (Wolfe 2010) that could result from direct impacts on subsistence abundance.

Potential economic development opportunities for both subsistence and non-subsistence use communities that may be affected include mining and tourism industries, as well as supporting industries, including construction, infrastructure, and transportation. Management decisions may influence the likelihood of existing industries and reasonably foreseeable projects to contribute to jobs and labor income over the life of the plan. Economic impacts are described as direct, indirect, and induced. Direct impacts are those that occur to a primary industry that is directly affected by a change. Because of the direct impacts on the primary business, indirect impacts occur to secondary businesses that provide goods or services to the primary business. Induced impacts are due to the expenditure of wages and proprietor incomes of people employed in the primary and secondary businesses affected.

As described in the reasonably foreseeable development scenario (RFDS), there are few mineral interests on Bureau of Land Management (BLM)-managed lands within the planning area that are likely to be developed over the life of the plan. The majority of the planning area would not be affected by direct economic impacts related to mineral development. As described in the RFDS, existing coal mining operations are not located on

[1]Designated non-subsistence use area communities within the planning area include Fairbanks, Ester, Healy, Big Delta, Delta Junction, McKinley Park, and North Pole.

federals lands, nor are new or existing operations expected to expand onto any federal minerals. In respect to other mineral resources evaluated in the RFDS, there are no known historical, active, or planned mining of nonenergy leasable minerals in the planning area. In addition, mineral exploration in the planning area has not identified economically recoverable deposits of fluid leasables from the federal mineral estate. Hence, fluid leasables are anticipated to have a low likelihood of development over the 20-year planning period.

Conversely, there is current production and identified potential new demand for mineral material sales and disposal, and locatable mineral production on BLM-managed lands in the planning area. In particular, gravel, riprap, and common fill used for construction and maintenance of roads and pipelines are produced under mineral materials authorizations on BLM-managed lands.

Locatable minerals in the planning area include gold, silver, copper, nickel, and chromite. The decision area contains approximately 268,000 acres ranked as high potential for locatable development, and roughly 949,000 acres ranked as medium potential. The number of annual new mining claim applications is closely tied to the price of gold and has fluctuated greatly over the past 50 years. The global value of gold is beyond the scope of the RMP's influence; however, management actions in the RMP may influence local development costs. For more information on potential mineral development, see the RFDS. Potential economic impacts by alternative are considered in respect to how management actions may result in economic impacts related to locatable minerals and mineral materials and disposal in the short and long term.

Management decisions on and adjacent to lands identified as high and medium mineral potential lands in the RFDS may affect local development costs, which would influence the development of mineral claims and supporting industries such as construction, utilities, and transportation. Such decisions include the status of PLO 5150, ROWs, and withdrawals or segregations that may sustain, reduce, or grow existing contributions, or preclude or create new mineral production opportunities related to locatable metalliferous mining, such as gold, and mineral materials, such as gravel, sand, common fill, and riprap. PLOs related to Alaska Native Claims Settlement Act 17(d)(1), or Native-selected lands, have some high and medium mineral potential lands; therefore, the PLOs may have economic development potential related to mineral production.

Management decisions that may affect recreation and tourism in the Dalton Utility Corridor are limited. As described in the AMS, recreation and tourism visitation are driven by factors beyond the influence of local or regional conditions, such as global and domestic market growth or recession. Management actions are not anticipated to measurably affect recreation visitation; however, management actions may affect the distribution of economic impacts of some segments of the recreation and tourism industry, such as recreation and tourism patterns related to big game hunting and sportfishing, sightseeing, and wildlife viewing.

Should the quality of sport-hunting and fishing opportunities decline due to a decrease in the abundance of these resources within a close range of the Dalton Highway, recreationists are likely to seek more remote hunting and fishing opportunities. This may result in a greater distribution of indirect and induced economic impacts on remote communities that are accessible by roads that may be developed over the life of the plan or by air. This, in turn, may result in impacts on subsistence resources and the social and cultural environment in these communities. Given the challenges associated with accessing remote communities by ground transportation, the demand for flight services is likely to increase if recreational hunters and anglers opt for more remote recreation opportunities. Industries potentially affected include the transportation and warehousing sector (NAICS 2017), which is the largest employment sector for Fairbanks and North Pole and one of the largest employment sectors for Ester and Delta Junction (Alaska DOL 2019). Hence, opportunities for proprietors and wage earners in rural communities with air service, such as Bettles, Anaktuvuk Pass, and

Galena, in the leisure and hospitality industry may be indirectly affected by shifting recreation patterns in respect to recreational hunting and fishing in the Dalton Utility Corridor.

The development of new transportation corridors may also influence recreation patterns by allowing for greater access to regions currently inaccessible by wheeled vehicles. Communities in proximity to these transportation corridors include Bettles, Evansville, and Anaktuvuk Pass. These communities may experience indirect economic and social impacts associated with changes in recreation patterns influenced by the increasing ease of access to these communities.

The nature and types of potential impacts on economic resources are closely tied to potential impacts on subsistence resources, recreation and tourism, and mineral resources. For additional information, see the discussion of impacts in those sections of the EIS.

Table S-1
Nature of Potential Impacts on Social and Economic Well-Being by Management Action and Indicator

Direct and Indirect impacts on jobs and labor income, or Indirect impacts on cost of living	Type of Potential Impacts	Management Actions	Indicators and Measures
Direct and Indirect impacts on jobs and labor income Management decisions may affect economic development related to recreation and tourism, minerals, construction, utility and transportation, and supporting industries. Actions that may affect these industries include decisions affecting the status of PLOs, ROWs, and utility and transportation corridors. Management direction on lands ranked with high to medium locatable mineral potential that are located close to the Dalton Highway are of particular interest to economic development opportunities and potential contributions to jobs and labor income.	Lands and Realty	Management actions, such as ROW exclusion or avoidance areas or ACEC designations, which occur within close proximity to a community may increase costs of infrastructure development and service delivery. Management direction on infrastructure development related to utility and transportation corridors	Acres of ROW exclusions within 20 miles of communities

Direct and Indirect impacts on jobs and labor income, or Indirect impacts on cost of living	Type of Potential Impacts	Management Actions	Indicators and Measures
Direct and Indirect impacts on jobs and labor income	Minerals	Management actions that may affect short- and long-term economic activity related to mineral materials and locatable mineral exploration and production	• Acres of BLM-managed lands closed to mineral material sales and disposal • Acres and percentage of high or medium mineral potential lands open for metalliferous mining • Acres and percentage of high or medium mineral potential lands open for metalliferous mining—**All selections/top-filing** • Acres and percentage of high or medium mineral potential lands open for metalliferous mining—**Selected by Native corporations** • Acres and percentage of high or medium mineral potential lands open for metalliferous mining that are **Priority 1 and 2 State-selected/top-filed lands (encumbered up to 10 years; conveyed to State by year 10)** • Acres and percentage of high or medium mineral potential lands open for metalliferous mining that are **Priority 3–4 State-selected/top-filed lands and Native-selected lands** (encumbered; conveyance timeline uncertain)

Direct and Indirect impacts on jobs and labor income, or Indirect impacts on cost of living	Type of Potential Impacts	Management Actions	Indicators and Measures
Direct and Indirect impacts on jobs and labor income	Recreation and Tourism	Management actions that affect the quality of sport-hunting opportunities along the Dalton Utility Corridor may increase competition between sport and subsistence hunters in the Dalton Highway Corridor Management Area, affecting recreation patterns and distribution of economic impacts by visitors. Management actions that increase the ease of access to rural communities, including designation of new transportation corridors, may affect recreation patterns and the distribution of visitors along with associated economic impacts.	• Impacts on caribou and Dall sheep populations within the Dalton Utility Corridor (see **Appendix P**) • Communities within 30 miles of proposed utility and transportation corridors
Indirect impacts on cost of living Management decisions that may indirectly affect the cost of living, due to the potential impacts on subsistence harvest amount and patterns, include the status of lands and realty decisions on PLOs and ROWs, designation of ACECs, and travel restrictions.	Travel Management	Restricting motorized travel close to communities or on traditional routes supporting intercommunity travel would increase the distance, time, and effort required to procure subsistence resources or redistribute such resources.	• Acres subject to seasonal limitations for OHV use (closed in summer) within 20 miles of communities and subsistence use areas • Acres subject to seasonal limitations for OHV travel (no May 1 to June 30) within 20 miles of communities and subsistence use areas

Direct and Indirect impacts on jobs and labor income, or Indirect impacts on cost of living	Type of Potential Impacts	Management Actions	Indicators and Measures
Indirect impacts on cost of living	Lands and Realty	Recommendation to revoke PLO 5150 in the Dalton Utility Corridor would reduce motorized access for subsistence purposes and the use of firearms, increasing the burden of effort and time to procure subsistence resources. Hence, this would increase the cost of living.	• Acres of subsistence access for Wiseman and Coldfoot in the Dalton Utility Corridor
Indirect impacts on cost of living	Subsistence	Management actions that may degrade habitat conditions for subsistence fish and game may affect the abundance of subsistence resources and, therefore, the effort, time, and fuel required to procure subsistence resources.	• Impacts on caribou and Dall sheep populations within the Dalton Utility Corridor (see **Appendix P**) • Subsistence report determinations for impacts due to management actions related to lands and realty, and minerals

S.3 ASSUMPTIONS

The following assumptions were used to assess impacts on the economic environment:

- This analysis incorporates community descriptions, assumptions, and determinations described in the subsistence section and **Appendix Q**.
- The most intense community subsistence gathering pressure from rural residents radiates 20 miles from villages. There are also larger geographic regions where communities traditionally harvest subsistence resources when conditions permit access. Impacts on access are considered in respect to how this may affect costs related to travel for subsistence purposes.
- Recreation visitation will be similar across all alternatives regardless of the designation of a backcountry conservation area, extensive recreation management area, special recreation management area, or no designation.
- Personal use wood and biomass collection on conveyed lands would continue to be allowed by the State and Native corporations.
- Fuel prices are driven by national and international market trends, state distribution channels and related costs, and local retailer costs. A review of the literature on Alaska's fuel markets (Szymoniak et al. 2010) did not reveal any market mechanisms on fuel prices that could be affected by the Central Yukon RMP management decisions.
- Short term in this context is 10 years. Ten years is the anticipated time frame for State top-filed lands identified as the State's priority 1 and 2 to be conveyed to the State. The time frame for conveyance of State-selected lands identified as Priority 3 or 4 is highly speculative and is assumed to be beyond the life of the plan.
- It is assumed that the State would facilitate mineral production on newly acquired State lands within the Inner Corridor during the life of the plan.

Incomplete or Unavailable Information

Studies of patterns of use, such as seasonal cycles, use areas, and resources harvested, have been conducted by ADFG Division of Subsistence and other agencies and organizations. Available data are primarily in technical reports by the ADFG Division of Subsistence's Community Subsistence Information System; but they may only reflect the use areas when the data were collected or may represent historical use areas. Consultation on the anticipated impacts on the community with representatives of some local villages and BLM staff assists in refining the assessment of impacts. The lack of data for a community does not indicate that subsistence harvests lack importance in an area. Only a few communities in the state are surveyed each year.

The discussion of harvest information in the following sections is supplemented by information that is available from recent ADFG technical papers and from publicly available information. Subsistence harvest areas vary seasonally and annually over a subsistence use area due to changes in resource distribution and regulatory restrictions. Information on subsistence use areas that was gathered during the scoping period, alternatives outreach, ACEC nominations, and interviews conducted with residents in the preparation of this EIS are important supplements.

Standard Operating Procedures and Best Management Practices

The impact analysis considers the standard operating procedures and best management practices that the BLM could implement; these are included in **Appendix F**.

S.4 IMPACTS ANALYSIS

The preliminary analysis found that management actions proposed for the following resources would not meaningfully affect social and economic conditions and were therefore not analyzed further:

- Air quality
- Paleontological resources
- Visual resources
- Hazardous materials and health and human safety
- Special status species
- Commercial timber management

In respect to commercial timber management, there are currently no existing or planned commercial timber operations on BLM-managed lands within the planning area. Considering timber market trends and current conditions related to the planning area, management actions considered within the alternatives are unlikely to affect the development potential of commercial wood product industries, such as logging, milling, or other forest products manufacturing. Therefore, there are no economic impacts related to commercial timber from any of the action alternatives or Alternative A. Restrictions on the collection of wood products for subsistence purposes are limited to the Kanuti Hot Springs proposed ACEC and would not result in measurable impacts on the availability of subsistence resources that influence the cost of living in rural communities in the planning area; therefore, commercial timber management is not considered further in this analysis.

Impacts on subsistence resources described in the subsistence analysis and located in **Appendix Q** of this EIS inform the consideration of impacts on economic conditions in the planning area. **Table S-2** displays the results of the quantitative socioeconomic indicators and measures used in the assessment of impacts by alternative. Other calculations referenced in the socioeconomic analysis are based on calculations in **Chapter 2**, other resource analyses presented in this EIS, or spatial analyses conducted to help display the relative impacts on a particular alternative under consideration.

Alternative A (No Action)

Economic Development, Jobs, and Labor Income

Lands and Realty

Alternative A has only one ROW exclusion area, the Central Arctic Management Area Wilderness Study Area, which totals 1.9 percent of the decision area. Alternative A does not propose any ROW avoidance areas. Alternative A would continue to provide a favorable environment for development by maintaining 98 percent of the decision area (13,006,000 acres) open for ROW location to accommodate access and development on State and private lands as needed. In addition, ancillary development would not be limited to designated development nodes, lending to a flexible management approach that would adapt to unforeseen development opportunities and changing market conditions.

Under Alternative A, PLO Alaska Native Claims Settlement Act 17(d)(1) lands, totaling 11,115,000 acres, and PLO 5150 lands, totaling 2,138,000 acres, would be maintained.

Under Alternative A, lands within 5 miles of the Dalton Highway would continue to be managed per federal subsistence regulations, which supersedes State law that restricts motorized access to these lands. Alternative A would not affect opportunities to trap and related household incomes. This is because motorized access for residents of Wiseman and Coldfoot would be maintained under Alternative A.

Table S-2
Socioeconomic Indicator Results, in Acres (and % of the BLM subsurface Decision Area)

Economic Development or Cost of Living	Lands and Realty, or Minerals—Locatables, Minerals—Materials, or Recreation and Tourism; Travel Management, or Subsistence	Alternative A (No Action)	Alternative B	Alternative C1	Alternative C2 (Preferred Alternative from Draft RMP/EIS)	Alternative D	Alternative E (Proposed Plan)
Economic Development	Lands and Realty ROW exclusions within 20 miles of communities	0	581,000	3,000	0	0	0
Economic Development	Minerals—Materials BLM-managed land closed to mineral material sales and disposal	266,000	5,041,000	1,465,000	1,081,000	259,000	970,000
Economic Development	Minerals—Locatables High or medium mineral potential lands, regardless of withdrawn, recommended for withdrawal, or open status	1,217,000 (9%)	1,217,000 (9%)	1,217,000 (9%)	1,217,000 (9%)	1,217,000 (9%)	1,217,000 (9%)
Economic Development	Minerals—Locatables High or medium mineral potential lands open for metalliferous mining	699,000 (5%)	1,021,000 (7%)	1,057,000 (8%)	1,151,000 (9%)	1,151,000 (9%)	715,000 (5%)
Economic Development	Minerals—Locatables High or medium mineral potential lands open for metalliferous mining—**All selections/top-filing, Native corporations, State, all priorities**	201,000 (2%)	447,000 (3%)	447,000 (3%)	450,000 (3%)	450,000 (3%)	201,000 (2%)
Economic Development	Minerals—Locatables High or medium mineral potential lands open for metalliferous mining—**Selected by Native corporations**	8,000 (0%)	90,000 (1%)	90,000 (1%)	90,000 (1%)	90,000 (1%)	0 (0%)
Economic Development	Minerals—Locatables High or medium mineral potential lands open for metalliferous mining that are **Priority 1 and 2 State-selected/top-filed lands (encumbered up to 10 years; conveyed to the State by year 10)**	123,000 (1%)	128,000 (1%)	128,000 (1%)	166,000 (1%)	166,000 (1%)	123,000 (1%)
Economic Development	Minerals—Locatables High or medium mineral potential lands open for metalliferous mining that are **Priority 3–4 State-selected/top-filed lands and Native-selected lands (encumbered; conveyance timeline uncertain)**	16,000 (<1%)	34,000 (<1%)	34,000 (<1%)	34,000 (<1%)	34,000 (<1%)	16,000 (<1%)

Economic Development or Cost of Living	Lands and Realty, or Minerals—Locatables, Minerals—Materials, or Recreation and Tourism; Travel Management, or Subsistence	Alternative A (No Action)	Alternative B	Alternative C1	Alternative C2 (Preferred Alternative from Draft RMP/EIS)	Alternative D	Alternative E (Proposed Plan)
Economic Development	Recreation and Tourism Impacts on Dall sheep populations within the Dalton Highway Corridor Management Area, a popular and easily accessible destination for sport hunting. (Determinations from the Subsistence Report—Wildlife Management Actions)	**Dall Sheep** ". . . development activities (locatable minerals, ROWs, and mineral materials) in Dall sheep habitat on BLM-managed lands would result in direct loss and degradation of sheep habitat. Linear ROWs could disrupt sheep movements and result in habitat fragmentation."	**Dall Sheep** "The higher level of protection for the important Dall sheep habitat area and Dall sheep movement corridor should decrease adverse impacts to Dall sheep populations relative to Alternative A."	**Dall Sheep** "These targeted restrictions should reduce potential Dall sheep disturbance and displacement and preserve use of Dall sheep habitat area and Dall sheep movement corridor compared with Alternative A."	**Dall Sheep** "Loss of important habitat and potential disturbance of Dall sheep from these activities could increase with the potential for displacement from important mineral licks and movement corridors with potential impacts on productivity or survival."	**Dall Sheep** "Alternative D would result in similar impacts on Dall sheep to those described for Alternative C2."	**Dall Sheep** "wildlife management actions on subsistence resources would be similar to those described under Alternative C1 but with some decreased protections from mineral development afforded to caribou and Dall Sheep, similar to Alternative C2."
Economic Development	Recreation and Tourism Impacts on caribou populations within the Dalton Highway Corridor Management Area, a popular and easily accessible destination for sport hunting. (Determinations from the Wildlife Analysis)	**Caribou** "The Central Arctic Herd already interacts with oilfield infrastructure, the Dalton Highway, and Trans-Alaska Pipeline System extensively but could be exposed to additional fluid mineral activity as well as additional ROWs and locatable mineral development in the future." "Within the Hodzana Hills Herd range, 41.2 is percent open to locatable entry under Alternative A and small-scale placer mining is ongoing, but it is unlikely that extensive mineral development will occur."	**Caribou** ". . . would decrease the area open to locatable minerals, fluid minerals, mineral materials, and ROWs compared with Alternative A . . . which would reduce potential impacts associated with these types of development to the HHH caribou. Two additional ACECs would be designated for caribou."	**Caribou** ". . . would designate . . . 48 percent of the HHH as ROW avoidance or exclusion areas." "A total of 4,000 acres of PLO 5150 lands are within the calving core area, are top filed as Priority 1 and 2 by the State of Alaska and are likely to be transferred to the State under Alternative C1."	**Caribou** ". . . additional areas of HHH open to potential surface disturbance and development compared with Alternative A and could impact Central Arctic Herd caribou movements during migratory periods."	**Caribou** "Impacts to caribou under Alternative D would be similar to those described for Alternative C2."	**Caribou** "wildlife management actions on subsistence resources would be similar to those described under Alternative C1 but with some decreased protections from mineral development afforded to caribou and Dall Sheep, similar to Alternative C2."
Economic Development	Recreation and Tourism Indirect/cumulative impacts on recreation and tourism patterns to communities within 30 miles of the utility and transportation corridors, or retaining PLO 5150 lands	Coldfoot and Wiseman	Coldfoot, Wiseman, Bettles, Evansville, and Anaktuvuk Pass	Coldfoot, Wiseman, Bettles, Evansville, and Anaktuvuk Pass	Coldfoot, Wiseman, Bettles, Evansville, and Anaktuvuk Pass	Coldfoot, Wiseman, Bettles, Evansville, and Anaktuvuk Pass	Coldfoot and Wiseman

Economic Development or Cost of Living	Lands and Realty, or Minerals—Locatables, Minerals—Materials, or Recreation and Tourism; Travel Management, or Subsistence	Alternative A (No Action)	Alternative B	Alternative C1	Alternative C2 (Preferred Alternative from Draft RMP/EIS)	Alternative D	Alternative E (Proposed Plan)
Economic Development	**Summary of Economic Impacts on Recreation and Tourism**	May affect distribution of economic impacts by changing recreation and tourism patterns; there is the potential for greater distribution of recreation and tourism impacts. Indirect economic impacts on Wiseman, Coldfoot, Bettles, Ambler, Anaktuvuk Pass, Galena, Healy, and Fairbanks.	May preserve recreation and tourism patterns in the Dalton Utility Corridor and related economic impacts. Indirect economic impacts on Wiseman, Coldfoot, Healy, and Fairbanks.	May preserve recreation and tourism patterns in the Dalton Utility Corridor and related economic impacts. Indirect economic impacts on Wiseman, Coldfoot, Healy, and Fairbanks.	Greatest likelihood to affect distribution of economic impacts by changing recreation and tourism patterns; there is the potential for greater distribution of recreation and tourism impacts. Indirect economic impacts on Wiseman, Coldfoot, Bettles, Ambler, Anaktuvuk Pass, Galena, Healy, and Fairbanks.	Greatest likelihood to affect distribution of economic impacts by changing recreation and tourism patterns; there is the potential for greater distribution of recreation and tourism impacts. Indirect economic impacts on Wiseman, Coldfoot, Bettles, Ambler, Anaktuvuk Pass, Galena, Healy, and Fairbanks.	May affect distribution of economic impacts by changing recreation and tourism patterns, though to a lesser degree than under Alternative A. May preserve recreation and tourism patterns in the Dalton Utility Corridor and related economic impacts. Indirect economic impacts on Wiseman, Coldfoot, Healy, and Fairbanks.
Cost of Living	Lands and Realty Acres of subsistence access for Wiseman and Coldfoot in the Inner Corridor of the Dalton Utility Corridor	743,000	743,000	743,000	0	0	743,000
Cost of Living	Lands and Realty Acres of subsistence access for Wiseman and Coldfoot in the Outer Corridor of the Dalton Utility Corridor	1,395,460	69,460	69,460	69,460	69,460	1,395,460
Cost of Living	**Lands and Realty** **Total Acres of subsistence access for Wiseman and Coldfoot in the Dalton Utility Corridor**	**2,138,460**	**812,460**	**812,460**	**69,460**	**69,460**	**2,138,460**
Cost of Living	Travel Management Acres subject to seasonal limitations for OHV use (closed in summer) within 20 miles of communities	0	522,000	0	0	0	0
Cost of Living	Travel Management Acres subject to seasonal limitations for OHV use (closed in summer) within community subsistence use areas	0	615,000	0	0	0	0
Cost of Living	**Travel Management** **Total acres** subject to seasonal limitations for OHV use (closed in summer) within **community subsistence use areas**	**0**	**1,137,000**	**0**	**0**	**0**	**0**
Cost of Living	Travel Management Acres of limited travel for OHV (May 1 to June 30) within 20 miles of communities	0	149,000	130,000	130,000	0	130,000
Cost of Living	Travel Management Acres of limited travel for OHV (May 1 to June 30) within community subsistence use areas, not including lands within 20 miles of communities	0	655,000	399,000	399,000	0	399,000

Economic Development or Cost of Living	Lands and Realty, or Minerals—Locatables, Minerals—Materials, or Recreation and Tourism; Travel Management, or Subsistence	Alternative A (No Action)	Alternative B	Alternative C1	Alternative C2 (Preferred Alternative from Draft RMP/EIS)	Alternative D	Alternative E (Proposed Plan)
Cost of Living	**Travel Management** **Total acres of limited travel for OHV (May 1-to June 30) in community subsistence use areas**	**0**	**804,000**	**529,000**	**529,000**	**0**	**529,000**
Cost of Living	Subsistence Subsistence report determinations for impacts due to management actions on **minerals**	Minerals Management "There would be no impacts on fish or wildlife and no associated impacts on subsistence access from mineral development in these areas and therefore no impacts on subsistence."	Minerals Management ". . . would reduce the potential for impacts on subsistence uses and resources over a larger geographic extent than current management . . ."	Minerals Management ". . . would be less likely to reduce impacts on the abundance of wildlife and subsistence resources . . . than Alternative A or B."	Minerals Management ". . . potential for impacts on subsistence resources would be highest."	Minerals Management ". . . potential for impacts on subsistence resources would be highest."	Minerals Management "This would reduce potential impacts associated with these types of development … compared to Alternative A."
Cost of Living	Subsistence Subsistence report determinations for impacts due to management actions on **lands and realty**	"Subsistence management on 100 percent of Community Subsistence Use areas within this designation would remain as it is currently."	"This is the most restrictive, and therefore most protective of subsistence uses, of all the alternatives."	"The impacts of this on subsistence uses would be the same as described under Alternative B."	"It is expected that the change in management in this area may result in increased competition for access to resources from non-subsistence users."	"It is expected that the change in management in this area may result in increased competition for access to resources from non-subsistence users."	"This alternative would be more protective of subsistence resources than Alternative A through the designation of ROW avoidance areas, but less protective than Alternatives B and C1."
Cost of Living	Subsistence Subsistence report determinations for impacts due to management actions affecting **wildlife**	"Alternative A is not as protective of subsistence species as the other alternatives."	". . . would reduce disturbance to wildlife and provide protection to these key habitats by reducing the potential for habitat loss, degradation, and fragmentation. Therefore, the management actions under Alternative B would benefit a wide range of species important to subsistence activities."	". . . protections for wildlife that are important subsistence resources from management actions would be of slightly lower magnitude and smaller geographic extent than those under Alternative B but would include areas important for the Ray Mountain Herd."	". . . would be less protective of habitat for these subsistence resources than Alternatives A, B, and C1."	". . . would be less protective of habitat for these subsistence resources than Alternatives A, B, and C1."	"the impacts under Alternative E from wildlife management actions on subsistence resources would be similar to those described under Alternative C1 but with some decreased protections from mineral development … similar to Alternative C2."

Minerals

Mineral Materials

Under Alternative A, approximately 5.2 million cubic yards of mineral materials deposits, currently authorized and permitted under contract, would continue to support mineral material production. Mineral materials authorized through existing free use mineral material permits to the Alaska Department of Transportation and the Alyeska Pipeline Service Company would be sufficient to maintain infrastructure in the Dalton Utility Corridor, including the Dalton Highway and the Trans-Alaska Pipeline, over the life of the plan. Authorization for new mineral material sites and expansion of existing sites would continue to be processed so as to meet demand.

Alternative A would continue to provide economic contributions that support jobs and labor income in the mining industry and would continue to contribute indirectly to other industries affected by the mineral materials production. These industries include construction and transportation, which require mineral material resources to support their systems of production or to drive demand for services. Other industries affected through indirect and induced spending include financial services, information technology, retail, real estate, and entertainment. The economic impacts of Alternative A would result in continued support of the existing size and structure of the regional economy.

Alternative A is not expected to change existing employment opportunities related to mineral material mining for residents of the Dalton Utility Corridor.

Locatables

Under Alternative A, approximately 699,000 acres of high and medium potential lands are open for metalliferous mineral entry; however, only lands that are not selected by the State or Native corporations would support the development of new federal mineral claims and development, of which Alternative A has 498,000 acres. Under Alternative A, 201,000 acres are selected and would hence be precluded from any new encumbrances for mineral production. The majority of these lands, approximately 193,000 acres, are selected by the State. Of these State-selected lands, 123,000 acres are identified as Priority 1 and 2 by the State and are expected to be conveyed to the State within 10 years of the RMP decision.

Approximately 34,000 acres of State-selected lands are identified as Priority 3 through 4. The timeline for conveyance of these lands is unknown but anticipated to be beyond the life of the plan; hence, these lands are not expected to contribute to economic development opportunities through direct, indirect, or cumulative impacts. There are 8,000 acres selected by Native corporations, which represents an economic development opportunity related to locatable minerals.

The production of locatable minerals, as described in the RFDS, is largely driven by the price of gold. Mining claims have fluctuated greatly with the price of gold. The BLM anticipates that past trends of production would persist under Alternative A. According to BLM records, an average of 20 applications for permits to mine in Alaska are filed annually with the Central Yukon Field Office. On average, two new mining claims are filed per year, while the majority (18) are applications for preexisting mineral exploration and operations. Jobs and labor income generated from placer and lode mining would directly affect mining industries. The indirect impacts on secondary businesses are not as closely tied to construction and transportation, as they are with mineral materials.

Recreation and Tourism

The Galbraith ACEC and the Dalton Highway Special Recreation Management Area offer one of the few opportunities for developed camping; they also offer supports for other recreation, such as an entry point for dog mushing or skiing. Recognition of the value of the recreation opportunities and the conservation of infrastructure and recreation opportunities in this area would continue to support the recreation and tourism industry. Visits to Dalton Highway Special Recreation Management Area are largely day-use visits. The majority of the economic contributions, jobs, and labor and proprietor income would benefit the community of Fairbanks and Healy given the existing size of the economy or specialization in tourism industries; however, residents of Coldfoot and Wiseman would continue to benefit from tourism-related economic contributions to household incomes through expenditures on lodging, guiding, and food services.

Maintaining PLO 5150 in the Inner Corridor of the Dalton Utility Corridor would limit mineral development opportunities, allow for cohesive recreation management, and maintain federal subsistence regulations that provide for subsistence access and hunting regulations. Competition between recreational and subsistence hunters may increase with the predicted increase in recreation visitation (see https://eplanning.blm.gov/epl-front-office/projects/lup/35315/72940/80089/CYRMP_AMS_all_April_2016_Final.pdf). Potential impacts from mineral, linear infrastructure, and ROW development may affect habitat for caribou and Dall sheep within proximity to the Dalton Highway Corridor Management Area. Dall sheep may be more sensitive to such development, while impacts on caribou are not anticipated in this region.

Increased competition for big game species and potential impacts on Dall sheep populations may influence sport-hunting patterns, as sport hunters may elect to hunt in more remote locations. Communities with flight service, including Bettles, Ambler, Anaktuvuk Pass, and Galena, may receive indirect economic impacts from increased visitation and economic contributions from recreational hunters, should a change in sport-hunting patterns arise.

Cost of Living

Travel Management

Alternative A does not propose travel restrictions or limitations; therefore, Alternative A would have no direct effect because of travel management on household transportation costs, existing customary trade patterns, and subsistence harvest distribution to low-income households.

Under Alternative A, indirect impacts of having no travel restrictions in core caribou calving may result in risks to the Ray Mountain Herd from human disturbance. The communities that may be indirectly affected include Rampart, Tanana, Allakaket, Alatna, Bettles, and Evansville. Should travel increase due to mineral exploration or increased recreational hunting during breeding season within core caribou habitat, the indirect impacts of no travel restrictions may result in increased household fuel costs that may result from a lower abundance of subsistence resources.

Lands and Realty

Alternative A fully retains PLO 5150. As such, subsistence access would be maintained, and motorized access would be allowed for the communities of Coldfoot and Wiseman on 1,376,834 acres. The use of firearms by residents of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, and Stevens Village within the Dalton Utility Corridor only for the taking of wildlife would continue to be allowed. There would be no change from current conditions for the cost of living due to the status of PLOs under Alternative A. Alternative A would not affect the cost of living for participating in subsistence harvest practices, in terms of time, effort, and fuel to secure household needs.

Subsistence

Given the importance of subsistence in supporting rural livelihoods, from food, shelter, heating, and cultural systems, the ability to procure subsistence resources would have consequential impacts on communities in the planning area, which would affect the cost of living and risks to food security. Under Alternative A, subsistence access is greatest compared with all other alternatives. While Alternative A does not provide a high level of protection to subsistence resources through ROW exclusions, ACEC designations, or no surface occupancy stipulations, it does present a lower risk of habitat disturbance to subsistence species in the Dalton Utility Corridor.

Lands in the Inner Corridor ranked as high and medium for locatable mineral potential have the greatest likelihood for development; however, the maintenance of PLO 5150 considered in Alternative A maintains the locatable mineral withdrawal in the Inner Corridor. This would mitigate risks to subsistence habitat that would be present should these lands be open to locatable mineral development. Lands located in the Outer Corridor, however, are open to locatable mineral development. Given the lack of protective measures, Alternative A does present some risk to communities reliant upon subsistence resources in the Dalton Utility Corridor.

In summary, risks to subsistence resources persist under Alternative A from the potential impacts should locatable mineral development occur in the Dalton Utility Corridor. This may increase the cost of living and increase risk to food security for households in Coldfoot, Wiseman, Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, and Stevens Village.

Impacts Common to All Action Alternatives

Economic Development, Jobs, Income, and Cost of Living

Wood and Biomass Harvest

There are existing contributions to socioeconomic conditions in the planning area related to wood and biomass collected from BLM-managed lands. Wood and biomass provide fuel for households, public facilities, and businesses in the communities of Tanana and Galena; create opportunities for wood vendors; and reduce household heating costs and municipal fuel costs (Schmidt et al. 2019). The total amount of BLM-managed lands within 20 miles of villages and available for biomass collection may be reduced; however, it is assumed that biomass collection on conveyed lands would continue to be allowed by the State and Native corporations based on historical access provided. Selected and lands that are conveyed to the State within 5 miles of the Dalton Highway may have reduced wood and biomass harvest if the BLM recommendation to revoke portions of the ANCSAs 17(d)(1) is acted on by the Secretary because access would be restricted. Most villages in the planning area are primarily surrounded by Native corporation patented lands. Anecdotal evidence suggests that most of the biomass harvest by villages in the planning area is harvested from Native corporation lands. Therefore, all action alternatives would continue to support the supply of biomass, supporting economic development opportunities and reducing heating and energy costs for rural municipalities and households.

Households across the planning area would be indirectly affected related to customary trade. Success rates of subsistence harvesters would in part drive subsistence sharing and redistribution to households across the planning area.

Lands and Realty

Under all action alternatives, the Road to Umiat and Ambler Road utility and transportation corridors would be designated. While an administrative utility and transportation corridor designation may not directly create public recreational access opportunities, the rugged terrain of the planning area is difficult to navigate; routes

created by developers for construction activities may be used by recreationists to access dispersed opportunities. The designation of utility and transportation corridors influences where infrastructure development would occur. Utility and transportation corridors under the action alternatives have the potential to improve access for recreation, such as camping, hunting, sightseeing, or float boating, in the planning area. As was identified in the AMS Section 2.2.6, recreation visitation is expected to increase access for hunting, fishing, and gathering, which may increase competition for wild resources among user groups. Subsistence harvests for communities whose subsistence use areas overlap with utility and transportation corridors may be adversely affected by the redistribution of recreationists. This redistribution may indirectly affect how far hunters and harvesters travel or how much time is required to acquire subsistence resources.

Conveyance of lands in PLO 5150 corridor would blocks the ability of the BLM to ensure it can provide east-west access, access its own lands for management, and access to NPS and FWS units. It would also block the ability to use motorized access where it was previously granted, like the Bettles ROW, due to AS 19.40.210.

Recreation and Tourism

The BLM anticipates that recreation opportunities related to scenic viewing and unique geographic or celestial features associated with the Arctic Circle would attract visitors and continue to sustain visitation to the Dalton Highway Special Recreation Management Area regardless of decisions in the RMP. Economic development opportunities for the communities of Wiseman and Coldfoot for lodging, food services, and guiding would persist regardless of the recreation management emphasis selected. Designation of the Ambler and Umiat utility and transportation corridors may indirectly affect recreation and tourism patterns by increasing overland access. Under all action alternatives, communities, including Bettles, Evansville, and Anaktuvuk Pass, within proximity of these corridors are likely to see an increase in economic activity in the tourism sector.

Impacts under Alternative B

Economic Development, Jobs, and Labor Income

Lands and Realty

Alternative B recommends the revocation of all ANCSA 17(d)(1) withdrawals. Alternative B would maintain 5,555,000 acres of land open for ROW location and include 2,349,000 acres of ROW exclusion areas and 5,360,000 acres of ROW avoidance areas within the planning area. Alternative B would reduce the amount of land open for ROWs from 98 percent under Alternative A to 42 percent. Alternative B further restricts development of ancillary facilities to two development nodes at Yukon Crossing and Chandalar; it also requires that linear infrastructure be located within designated utility and transportation corridors. Alternative B may inhibit economic development by increasing the risks to economic viability of projects. This is because these restrictions may increase the planning and construction costs.

Under Alternative B, the Outer Corridor of PLO 5150 would be recommended for revocation. Lands that are top-filed would then become valid State selections. Lands that remain selected and lands that are conveyed to the State within 5 miles of the Dalton Highway would no longer be subject to Federal Subsistence Board regulations. Under Alternative B, State law would restrict motorized access on these lands, which would functionally restrict access to subsistence use areas for residents of Wiseman and Coldfoot. Motorized access to subsistence use areas would be substantially reduced under Alternative B due to the revocation of PLO 5150. Hence, opportunities for generating household income from trapping may be adversely affected for residents of Wiseman and Coldfoot under Alternative B.

Other economic impacts related to the PLO are described under the following minerals section.

Minerals

Mineral Materials

Compared with Alternative A, Alternative B would greatly reduce the amount of land available to support the direct and indirect impacts related to mineral materials production. However, lands where mineral material development is restricted are not located in any transportation corridors where demand would be anticipated. In cases where demand cannot be satisfied from BLM-managed lands, the BLM anticipates that production would shift off BLM-managed lands in some areas.

Ninety-two percent of permits currently authorized for mineral materials production are located within the Inner Corridor. Mineral materials production would continue to be allowed for authorized and permitted mineral materials sites within the Inner Corridor. In addition, pending and new permit applications for mineral materials production in the Inner Corridor would continue to be processed. Three percent of lands, or 480 acres, currently contracted for mineral materials production are in the Outer Corridor.

Given that over 90 percent of the existing mineral materials contracted are located in the Inner Corridor and that new permit applications would be authorized, the BLM anticipates that Alternative B would meet existing demand for mineral materials production for the life of the plan, as described under Alternative A. In addition, given that lands within utility and transportation corridors would be open to mineral materials development, the BLM anticipates that Alternative B would meet future demand and support the development of jobs and labor income in mining, construction, and supporting industries in the planning area.

Locatables

Under Alternative B, 1,021,000 acres of high and medium locatable mineral potential are designated as open; however, only 574,000 acres would allow for new federal mineral claims, as 447,000 acres of these lands would be encumbered by State and Native selections. Mineral exploration and operations would continue to be allowed on lands with active existing mineral claims in the Outer Corridor.

The impacts of the recommended revocation of PLO 5150 in the outer Dalton Utility Corridor would result in increasing the acres of selected lands in the planning area. Lands in the Outer Corridor that are top-filed by the State would become valid State selections and therefore would no longer be open to new federal mineral claims; however, existing claimants, at the time State selection attaches, would be allowed to conduct exploration and mining operations. As such, 447,000 acres of high or medium mineral potential lands would be closed to new federal mineral claims due the State selection status. Of these State-selected lands, 128,000 are identified as a Priority 1 and 2 by the State and are expected to be conveyed to the State within 10 years of the RMP decision. Approximately 34,000 acres of State-selected lands are identified as Priority 3 through 4. The timeline for conveyance of these lands is unknown but anticipated to be beyond the life of the plan; hence, they are not expected to contribute to economic development opportunities through direct, indirect, or cumulative impacts.

Under Alternative B, there are 90,000 acres of land ranked as high or medium locatable mineral potential selected by Native corporations Priority 1 and 2, compared to only 8,000 acres under Alternative A. If these lands were conveyed to Native corporations, then under Alternative B, economic development opportunities for would exceed those of Alternative A.

In addition, federal lands open to mineral entry and located outside the Dalton Utility Corridor would also be available for locatable mineral production. While the BLM is required to allow reasonable access to federal mineral claims, federal law does not require that claimants are afforded their preferred access.

The Secretary of the Interior is authorized to take action necessary to prevent unnecessary or undue degradation of lands (43 United States Code 1732 (2001), originally enacted as part of the Federal Land Policy and Management Act of 1976, Public Law 94-579). Accordingly, management actions such as ROW exclusion or avoidance areas may elevate the consideration of natural and cultural resource values at risk in the planning area and influence how access routes are delineated. Additionally, Alternative B has the most ACEC designations. ACEC designations require a plan of operation to be developed, which may increase planning and development costs associated with locatable minerals. Alternative B may therefore be the least conducive to facilitate economic development opportunities related to locatable minerals.

Recreation and Tourism

Recreation visitation and tourism are expected to be similar to Alternative A; however, actions in Alternative B may create more favorable conditions for recreational hunters within and near the Dalton Highway Corridor Management Area. This is because of the protective measures that would conserve Dall sheep and caribou habitat in the region.

The recreation and visitor services would be maintained and managed as frontcountry and rural recreation settings near the Dalton Highway. The change in management approaches is not expected to drive a change in recreation visitation or recreation opportunities offered near the Dalton Highway. Restrictions and seasonal limitations on OHV use during sensitive breeding times in ACECs and right-of-exclusions may benefit caribou and Dall sheep populations, which would indirectly benefit recreational hunting opportunities. Restrictions and seasonal limitations on OHV use may also reduce recreational access to more remote areas of the planning area. Protective measures, such as visual quality management, ROW avoidance, and stay limitations, would help maintain semi-primitive experiences of the Dalton Corridor Back Country Area and improve desired primitive and semi-primitive recreation opportunities in the Dalton Corridor Backcountry Conservation Area.

With the recommended revocation of PLO 5150 in the Outer Corridor, residents along the Dalton Highway living in Wiseman and Coldfoot would lose motorized access to Outer Corridor lands within 5 miles of the Dalton Highway; the communities of Wiseman, Coldfoot, Alatna, Allakaket, Anaktuvuk Pass, Evansville, and Stevens Village would lose the authority to subsistence hunt using rifles within 5 miles of the Dalton Highway. This may result in less subsistence hunting pressure on large mammals in the Dalton Highway Corridor Management Area. Therefore, this may indirectly improve recreational hunting opportunities in areas near the Dalton Highway and hence result in sustained support for tourism-related jobs and labor income for residents of Wiseman and Coldfoot.

Should primitive and semi-primitive recreation opportunities improve as described, tourists seeking such recreational experiences, including sport hunters, may opt to recreate near the Dalton Highway rather than travel to more remote regions of the planning area. Hence, more remote communities are less likely to be indirectly affected by tourism and related economic development from Alternative B. As such, Alternative B may maintain existing demand and potentially result in an increased demand for guiding, lodging, and food services in the communities of Coldfoot and Wiseman. Remote communities with existing air service would continue to receive the economic impacts related to shifting recreation hunting patterns but not to the extent as under Alternative A.

Cost of Living

Travel Restrictions

Alternative B includes 1,137,000 acres of lands that are restricted for summer (May through October) OHV use within subsistence use areas and within 20 miles of communities. Alternative B also includes 804,000 acres of travel restrictions from May through June within subsistence use areas and within 20 miles of planning area communities.

Summer travel restrictions may reduce direct access to other communities or areas where subsistence is practiced. Communities potentially affected by the summer travel restrictions include Tanana, Allakaket, Alatna, Bettles, Evansville, Ruby, and Rampart.

Travel restrictions from May through June may disrupt travel patterns between Allakaket, Alatna, and Tanana. The seasonal travel restriction may impede overland travel on an unimproved historical travel route between Tanana and Allakaket or Alatna. This may result in increased summer travel costs and limit summer travel between Allakaket and Tanana to air and river travel. Other communities that may be directly affected by travel restrictions include Wiseman, Coldfoot, Bettles, Evansville, and Hughes.

While the travel restrictions under Alternative B are the most extensive and may have the greatest direct impacts related to travel patterns, the conservation measures for wildlife afforded under Alternative B may improve subsistence hunter success in subsistence use areas or close to communities. Therefore, it is difficult to determine how travel restrictions may indirectly affect travel patterns associated with subsistence hunting and related fuel costs. Alternative B does, however, have the greatest likelihood of disrupting travel patterns between communities and may result in increased household fuel costs related to travel between communities. Disadvantaged, low-income, single head of households would be most vulnerable to negative impacts due to the disruption of intercommunity subsistence distribution.

Lands and Realty

Alternative B recommends revoking PLO 5150 in the Outer Corridor. Under Alternative B, there would be 1,112,664 acres within the Dalton Utility Corridor subject to federal subsistence priority designations. Federal subsistence priority would no longer apply on 264,170 acres of top-filed lands that would become valid State selections. State restrictions that prohibit the use of snowmachines within 5 miles of the Dalton Highway would fragment ownership patterns and eliminate motorized access to lands in the Outer Corridor and beyond for the communities of Wiseman and Coldfoot. The use of snowmachines would continue to be allowed for subsistence purposes in the Inner Corridor.

In addition, the communities of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, and Stevens Village would no longer be afforded the use of firearms for subsistence hunting purposes on lands in the Outer Corridor within 5 miles of the Dalton Highway. Loss of motorized access and loss of the use of firearms on these lands would increase the cost of living in these communities by increasing the time and effort spent hunting, increasing the distances traveled to access lands available for subsistence activities, increasing the household costs for fuel to participate in subsistence practices, or increasing the need to secure household food and goods through markets rather than through subsistence practices.

The communities of Coldfoot and Wiseman would be most acutely affected by the change in motorized access. The elimination of subsistence access would substantially limit access to much of their subsistence use areas relied upon for their livelihoods.

The increased costs associated with subsistence harvest may result in decreased subsistence harvest for super-households. This may translate into indirect impacts on low-income households in the planning area who may receive a reduced share of subsistence goods facilitated through interregional community distribution and trade. This may result in an increased cost of living for low-income households reliant upon the redistribution of subsistence resources.

Subsistence

As described in the subsistence analysis of this EIS, Alternative B may reduce subsistence access for some communities (Wiseman and Coldfoot) in the planning area; however, it would improve habitat for subsistence species compared with Alternative A. Given the importance of subsistence in supporting rural livelihoods, from food, shelter, heating, and cultural systems, the ability to procure subsistence resources would have consequential impacts on communities in the planning area, which would affect the cost of living and risks to food security.

For the communities of Coldfoot and Wiseman, decreased access for subsistence hunting would result in an increased reliance on markets to secure these resources. Substituting market goods for subsistence resources may increase the households' cash burden (in other words, the cost of living) and may not be a feasible strategy for some households with limited incomes or limited access to markets. Many households go without household necessities when they are unable to acquire subsistence resources. (Brinkman et al. 2014). Hence, rural subsistence communities (Coldfoot and Wiseman) may experience an increased cost of living and a heightened risk of food insecurity due to impacts on subsistence access, compared with Alternative A.

Other communities in the planning area, however, may benefit from Alternative B. This is because it provides protection for habitat important to subsistence species. Hence, Alternative B may reduce risks to subsistence abundance. It has a lower likelihood than Alternative A of contributing to an increased cost of living and a higher likelihood of reducing food insecurity in rural subsistence communities in the planning area. In addition, creation of ACECs, including those nominated by local communities and tribes, demonstrates support for community values and traditional knowledge, although there are local residents and entities who also question the need for ACECs and are concerned about impacts on subsistence travel and economic development.

Impacts under Alternative C1

Economic Development, Jobs, and Labor Income

Lands and Realty

Alternative C1 would provide a more favorable economic development environment to benefit the growth of jobs and labor income than Alternative B. This is because Alternative C1 is less restrictive to development than Alternative B; Alternative C1 proposes a smaller ROW exclusion area than Alternative B. Alternative C1 encourages infrastructure development within utility and transportation corridors and development nodes; however, it does not require that infrastructure and industrial development be colocated in these areas. Compared with Alternative A, Alternative C1 may increase development costs by increasing planning and administrative costs associated with evaluating the feasibility and cost effectiveness of alternative routes or increase costs for routing infrastructure to avoid ROW avoidance areas.

Minerals

Mineral Materials

Contributions to jobs and labor income due to mineral materials production would be greater under Alternative C1 than Alternative A. This is because the designation of the Umiat Corridor would support road construction,

which would accommodate demand for mineral materials in this region. (The Umiat Corridor is open to mineral material development in Alternative C1). Alternative C1 would facilitate the growth of this industry in response to externally driven demand that is anticipated over the life of the plan. Therefore, it may be that jobs and labor income for residents of Wiseman, Coldfoot, and other communities located in proximity of the Umiat Corridor may increase in regularity and become a reliable form of employment and labor income over the life of the plan.

Locatables

Compared with Alternative A, Alternative C1 designates more acres of land ranked as high and medium locatable mineral potential as open to locatable mineral development. Under Alternative C1, 447,000 acres would be State-selected, of which 128,000 acres are identified as Priority 1 and 2 expected to be conveyed to the State within 10 years of the RMP decision. The remaining 319,000 acres would remain encumbered and not open for new federal mineral claims; they are not expected to contribute to economic development over the life of the plan.

Under Alternative C1, there are 90,000 acres of high and moderate ranked locatable mineral potential lands selected by Native corporations. Compared with Alternative A, this is roughly a tenfold increase for Native corporations, representing a large increase in economic development potential related to locatable mineral development. In addition, given that the Native-selected lands are located outside the Dalton Utility Corridor, Alternative C1 is slightly more conducive than Alternative B to promoting economic development. This is because it is less restrictive than Alternative B, as there are fewer management actions that may increase costs for mineral development. For example, there are fewer ROW exclusions and fewer ACEC designations.

Recreation and Tourism

Recreational patterns and tourism are expected to be similar to conditions under Alternative B. Given the conservation measures afforded to caribou and Dall sheep habitat, along with the decreased competition from subsistence hunters in the Dalton Utility Corridor, the BLM anticipates that wildlife viewing and recreational hunting opportunities under Alternative C1 would improve compared with Alternative A. Alternative C1 is not as protective of primitive recreation opportunities, however, near the Dalton Highway. Hence, jobs and labor income opportunities in Wiseman and Coldfoot, and businesses directly or indirectly supported by recreation and tourism located in non-subsistence communities, such as Fairbanks and Healy, would continue to receive economic contributions from recreation and tourism near the Dalton Highway. Remote communities with existing air service would continue to receive the economic impacts related to shifting recreational hunting patterns, but not to the extent as under Alternative A.

Cost of Living

Travel Restrictions

Alternative C1 has 529,000 acres of land within subsistence use areas or within 20 miles of communities subject to travel restrictions from May through June. The communities that may be directly affected by the travel restrictions include Rampart, Ruby, Tanana, Allakaket, and Alatna.

The protective measures offered by the travel restrictions in core caribou habitat may reduce impacts on subsistence resources and thereby reduce the amount of effort expended for subsistence hunting. Potential direct impacts may increase travel distances and related fuel costs for subsistence purposes, but they may be countered by the indirect impacts related to the increased abundance of subsistence resources.

Overall, Alternative C1 has more direct impacts on potentially increasing household fuel costs than Alternative A, but less than Alternative B. When the direct impacts and indirect impacts are considered in

tandem, then Alternative C1 may result in increased subsistence abundance. This may reduce household fuel costs for travel compared with Alternative A.

The impacts on household fuel costs related to travel due to the status of PLO are addressed in the following section under lands and realty.

Lands and Realty

The impacts of Alternative C1 on the cost of living in Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, and Stevens Village would be the same as those described in Alternative B in respect to the recommended revocation of PLO 5150 in the Outer Corridor.

Subsistence

Alternative C1 would have similar impacts as Alternative B.

Impacts under Alternative C2 (Preferred Alternative from Draft RMP/EIS)

Economic Development, Jobs, and Labor Income

Lands and Realty

Like Alternative A, Alternative C2 has only one ROW exclusion area, the Central Arctic Management Area Wilderness Study Area, which totals 1.9 percent of the planning area; however, unlike Alternative A, Alternative C2 proposes ROW avoidance areas, similar to Alternative B and C1. However, Alternative C2 would provide a more favorable economic development environment to benefit the growth of jobs and labor income than Alternatives B and C1. This is because Alternative C2 only proposes 905,000 acres of ROW avoidance areas near Venetie. Alternative C2 encourages infrastructure development within utility and transportation corridors and development nodes; however, it does not require that infrastructure and industrial development be colocated in these areas. Compared with Alternative A, Alternative C2 may increase development costs by increasing planning and administrative costs associated with evaluating the feasibility and cost effectiveness of alternative routes or increase costs for routing infrastructure to accommodate the avoidance area.

Alternative C2 would continue to provide a favorable environment for economic development by maintaining 91 percent of the planning area open for ROW location to accommodate access and development on State and private lands, as needed. In addition, ancillary development would not be limited to designated development nodes. This would lend to a flexible management approach that would adapt to unforeseen development opportunities and changing market conditions.

Similar to Alternative A, Alternative C2 maintains the Central Arctic Management Area Wilderness Study Area ROW exclusion area. While utility and transportation corridors are designated under Alternative C2, development is only encouraged and not required in these areas. Compared with Alternative A, Alternative C2 is generally less restrictive to economic development interests. Except for the Toolik Lake Research Natural Area, there are no ACEC designations, which require that a plan of operation be completed prior to developing locatable mineral interests.

Minerals

Mineral Materials

Under Alternative C2, economic activity generated from mineral materials development could be less than or greater than Alternative A. This is because Alternative A has more lands open to mineral materials development than Alternative C2. This could support more mineral materials development; however,

Alternative C2 has several plan elements that could support a greater level of industrial development. These plan elements are recommending the full revocation of PLO 5150, limited designations of ACECs, and the lack of limitations on utility and transportation development, as compared with Alternative A. As such, demand for mineral materials may be more or less than would occur under Alternative A. Hence, jobs and labor income in businesses directly and indirectly affected by mineral materials development would be similarly affected under Alternative C2.

Locatables

While Alternative C2 has limited economic development opportunities related to locatable mineral development, the recommended revocation of PLO 5150 in the Inner Corridor may lead to greater economic impacts in the short term (defined as within 10 years of the RMP decision) than Alternative A. This is because Alternative C2 has more lands ranked as high and medium potential open to metalliferous mining without the encumbrance of State and Native selections.

While Alternative C2 has 1,057,000 acres, almost twice that of Alternative A, of high and moderate ranked locatable mineral lands open to metalliferous mining, 447,000 acres of these lands would be State- or Native-selected, which would constrain federal mineral development and related economic contributions. However, Alternative C2 would lift PLO 5150 not only in the Outer Corridor but also in the Inner Corridor. Most lands within the Inner Corridor would be selected by the State and would not allow for new federal mineral claims; but they would allow for mineral exploration and operation within existing claims.

There are currently 80 active mineral claims in the Inner Corridor that encompass 1,772 acres. Locatable mineral claims in the Inner Corridor have not been open for development since PLO 5150 was established in 1971. Since this time, the price of gold has increased significantly. Given the close proximity of these lands to the Dalton Highway and the relative high value of gold since these lands were last open to mineral development, the recommended revocation of PLO 5150 would signify an economic development opportunity that has yet to be explored in this market context. Hence, revoking PLO 5150, which would allow for federal mineral development within existing claims, may result in the development of these mineral resources and related economic activity in mining and supporting industries in the short term. While Alternative C2 would provide for more economic development opportunities in the Inner Corridor than all other alternatives, these development opportunities would be constrained to exploration and operations within existing claims until conveyed.

There are 128,000 acres of State-selected land that are identified by the State as Priority 1 and 2 for conveyance, which is anticipated to occur within 10 years on the RMP decision. In addition, there are 34,000 acres of State-selected lands that are Priority 3 through 4, whose timeline for conveyance to the State is unknown. Outside of mineral exploration and operations within existing claims, there are no anticipated economic impacts from these lands over the life of the plan. Upon conveyance to the State, locatable mineral production would be subject to the State's authority and beyond the scope of the RMP.

On the 1,057,00 acres on lands ranked as high or medium mineral potential that are open to locatable mineral development, Alternative C2 would provide more flexibility than Alternative A. Revocation of ANCSA 17(d)(1) withdrawals and PLO 5150 recommended under Alternative C2 would revoke withdrawals from locatable mineral entry, and Alternative C2 does not have ACECs that would require a plan of operation. Opportunities for long-term economic development related to locatable minerals are greater under Alternative C2 than Alternative A.

Recreation and Tourism

In the long term, Alternative C2 may result in a greater distribution of recreational hunting and associated economic impacts in remote communities with air service within the planning area. This is because big game populations popular for sport hunting may not be as robust as under Alternative C2 due to potential impacts on important habitat for Dall sheep and caribou in the Dalton Utility Corridor from locatable mineral development. These are important sport-hunting species that attract recreational hunters and contribute to recreation and tourism expenditures. Should recreational hunting opportunities near the Dalton Highway degrade, or visual quality decline due to mineral development, the BLM anticipates that Alternative C2 may result in a redistribution of recreational hunters to more remote areas of the planning area where sport-hunting game species are more robust, and primitive and semi-primitive recreation opportunities persist. Therefore, Alternative C2 may result in a more diffuse distribution of economic impacts. This means less economic contributions to the communities of Wiseman and Coldfoot and the possibility of an increase in economic contributions, jobs, and labor income to rural communities with air service. These communities currently include Bettles, Ambler, Anaktuvuk Pass, and Galena.

Cost of Living

Travel Restrictions

Unlike Alternative A, Alternative C2 has 529,000 acres of land within subsistence use areas or within 20 miles of communities subject to travel restrictions from May through June. The communities that may be directly affected by the travel restrictions include Rampart, Ruby, Tanana, Allakaket, and Alatna.

The protective measures offered by the travel restrictions in core caribou habitat may reduce impacts on subsistence resources and thereby reduce the amount of effort expended for subsistence hunting. Potential direct impacts may increase travel distances and related fuel costs for subsistence purposes; however, they may be countered by the indirect impacts related to an increased abundance of subsistence resources.

Overall, Alternative C2 has more direct impacts on potentially increasing household fuel costs than Alternative A, but less than Alternative B. When the direct impacts and indirect impacts are considered in tandem, then Alternative C2 may result in increased subsistence abundance. Compared with Alternative A, this may reduce household fuel costs for travel.

The impacts on household fuel costs related to travel due to the status of PLOs are addressed in the following section under lands and realty.

Lands and Realty

Alternative C2 recommends revoking PLO 5150 in the Outer Corridor. Under Alternative C2, there would be 1,112,664 acres within the Dalton Utility Corridor subject to federal subsistence priority designations. Federal subsistence priority would no longer apply on 264,170 acres of top-filed lands that would become valid State selections. State restrictions that prohibit the use of snowmachines within 5 miles of the Dalton Highway would fragment ownership patterns and eliminate motorized access to lands in the Outer Corridor for the communities of Wiseman and Coldfoot. The use of snow machines would continue to be allowed for subsistence purposes in the Inner Corridor.

In addition, the communities of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, and Stevens Village would no longer be afforded the use of firearms for subsistence hunting purposes on lands in the Outer Corridor within 5 miles of the Dalton Highway. Loss of motorized access and loss of the use of firearms on these lands would increase the cost of living in these communities by increasing the time and effort spent hunting, increasing the distances traveled to access lands available for subsistence activities, increasing the

household costs for fuel to participate in subsistence practices, or increasing the need to secure household food and goods through markets rather than through subsistence practices.

The communities of Coldfoot and Wiseman would be most acutely affected by the change in motorized access. The elimination of subsistence access would substantially limit access to much of their subsistence use areas relied upon for their livelihoods.

The increased costs associated with subsistence harvest may result in decreased subsistence harvest for super-households. This may translate into indirect impacts on low-income households in the planning area who may receive a reduced share of subsistence goods facilitated through interregional community distribution and trade. This may result in an increased cost of living for low-income households reliant upon the redistribution of subsistence resources.

Subsistence

As described in the subsistence analysis of this EIS, Alternative C2 may affect subsistence access and abundance for communities in the planning area. Given the importance of subsistence in supporting rural livelihoods, from food, shelter, heating, and cultural systems, decreased access and abundance of subsistence would result in an increased reliance on markets to secure these resources, where there may be no suitable substitute. However, given the limited number of jobs and labor income and the high cost of goods in rural communities, substituting market goods for the loss of subsistence resources may not be feasible for many households. Many households report going without household necessities when they are unable to acquire subsistence resources (Brinkman et al. 2014). Hence, compared with Alternative A, rural subsistence communities in the planning area, including Coldfoot, Wiseman, Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, and Stevens Village, may experience an increased cost of living and a heightened risk of food insecurity due to impacts on subsistence resources.

The lack of designation of any ACECs will be seen by some as a rejection of local concerns about protection of important subsistence species and habitat, as well as a failure to be responsive to local values and knowledge. However, as reflected in comments in the ACEC report, others have commented that ACECs are unnecessary, larger than needed to protect key resources, pose unwarranted restrictions on mineral and other development, or restrict travel.

Impacts under Alternative D

Economic Development, Jobs, and Labor Income

Lands and Realty

Similar to Alternative A, Alternative D maintains 98 percent of BLM-managed lands in the planning area as open to ROWs and maintains the Central Arctic Management Area Wilderness Study Area ROW exclusion area. However, Alternative D differs from Alternative C2 in that it does not propose any new ROW avoidance areas. Alternative D is generally more conducive to economic development compared with Alternative A. Given that there are no new mineral withdrawals, no new ROW exclusion or avoidance areas, and no ACEC designations, which require that a plan of operation be completed prior to developing mineral interests, Alternative D provides the most favorable environment for economic development.

Minerals

Mineral Materials

Economic activity generated from mineral materials development under Alternative D may be greater than that generated under Alternative A. This is because with only 259,000 acres closed to mineral materials

development, there are more lands open under Alternative D than under Alternative A. In addition, Alternative D has a number of plan elements that support industrial development, such as no ROW avoidance or exclusion areas, the recommended full revocation of PLO 5150, limited designations of ACECs, and the lack of limitation on utility and transportation development. As such, demand for mineral materials may exceed that which may occur under Alternative A. Hence, jobs and labor income in businesses directly and indirectly affected by mineral materials development could increase under Alternative D.

Locatables

Under Alternative D, the economic impacts would be similar to those under Alternative C2 for locatable mineral entry. Compared with all other alternatives, Alternative D would provide the most flexibility for locatable mineral development. Alternative D does not include any withdrawals from locatable mineral entry or ROW avoidance zones, nor does it have ACECs (except for Toolik Lake Research Natural Area), which would require a plan of operation. Alternative D is the least restrictive alternative for locatable mineral development. The costs for accessing and developing locatable minerals production may be less than under all other alternatives. Opportunities for economic development related to locatable minerals are greatest under Alternative D.

Recreation and Tourism

Economic development impacts related to recreation and tourism under Alternative D would be similar to those under Alternative C2.

Cost of Living

Travel Restrictions

Alternative D does not have travel restrictions. The impacts of Alternative D are similar to those under Alternative A in respect to travel restrictions. The impacts on the cost of living from the loss of priority subsistence access in the Dalton Utility Corridor due to the recommended revocation of PLO 5150 are addressed in the following section under lands and realty.

Lands and Realty

Like Alternative C2, Alternative D recommends revocation of PLO 5150 in the Dalton Utility Corridor. The impacts of this action are similar to those described under Alternative C2, *Cost of Living, Lands and Realty*.

Subsistence

The impacts of Alternative D are similar to the impacts of Alternative C2. The lack of designation of any ACECs will be seen by some as a rejection of local concerns about protection of important subsistence species and habitat, as well as a failure to be responsive to local values and knowledge. However, as reflected in comments in the ACEC report, others have commented that ACECs are unnecessary, larger than needed to protect key resources, pose unwarranted restrictions on mineral and other development, or restrict travel.

Impacts under Alternative E (Proposed Plan)

Economic Development, Jobs, and Labor Income

Lands and Realty

Alternative E would be similar to Alternative A in impacts related to lands and realty decisions, due to the retention of PLO 5150 and most of the ANCSA 17(d)(1) withdrawals. Unlike Alternative A, the partial revocation of ANCSA 17(d)(1) withdrawals recommended under Alternative E to allow for Alaska Native Vietnam Veterans' allotment selection in compliance with the Dingell Act could provide a more favorable economic development environment to benefit the growth of jobs and labor income once conveyed.

Alternative E is also more restrictive to development than Alternative A; Alternative E proposes ROW avoidance and exclusion, with 1,595,000 acres fewer open to ROW location than Alternative A. Alternative E also encourages infrastructure development within utility and transportation corridors and development nodes; however, it does not require that infrastructure and industrial development be colocated in these areas. Compared with Alternative A, Alternative E may increase development costs by increasing planning and administrative costs associated with evaluating the feasibility and cost effectiveness of alternative routes or increase costs for routing infrastructure to avoid these areas.

Minerals

Mineral Materials

Contributions to jobs and labor income due to mineral materials production would be greater under Alternative E than Alternative A. This is because the designation of the Umiat Corridor would support road construction, which would accommodate demand for mineral materials in this region. (The Umiat Corridor is open to mineral material development. Similar to Alternative C1, Alternative E would facilitate the growth of this industry in response to externally driven demand that is anticipated over the life of the plan. Therefore, it may be that jobs and labor income for residents of Wiseman, Coldfoot, and other communities located in proximity of the Umiat Corridor may increase in regularity and become a reliable form of employment and labor income over the life of the plan.

Locatables

Alternative E likely would result in greater economic activity from federal locatable mineral development compared to Alternative A. Under Alternative E, approximately 715,000 acres of high and medium locatable mineral potential lands are open for metalliferous mineral entry (16,000 acres more than under Alternative A). Under Alternative E, approximately 514,000 acres of land open for metalliferous mineral entry with high and medium locatable mineral development potential is not encumbered by State or Native selection; this is 163,000 acres more than under Alternative A.

Alternative E is more conducive than Alternative B to promoting economic development related to locatable minerals. This is because it is less restrictive than Alternative B, as there are fewer management actions that may increase costs for mineral development. For example, there are more acres open to locatable mineral entry and ROW location, and fewer ACEC designations under Alternative E than under Alternative B.

Recreation and Tourism

Recreational patterns and tourism are expected to be similar to conditions under Alternative B. Alternative E is the only alternative other than Alternative C1 containing acres with conservation measures afforded to Dall sheep, though Alternative E designates only 1 percent of the acres designated under Alternative C1. Under Alternative E, designations of core caribou habitat are identical to those under Alternatives C1 and C2. The BLM anticipates that wildlife viewing and recreational hunting opportunities under Alternative E would be similar to Alternative A due to continued competition with subsistence users in the Dalton Corridor. Because of BCA designations under Alternative E, it is more protective of primitive recreation opportunities in the Dalton Utility Corridor than Alternative A, though less so than under Alternative B. Hence, jobs and labor income opportunities in Wiseman and Coldfoot, as well as businesses directly or indirectly supported by recreation and tourism in nonsubsistence communities, such as Fairbanks and Healy, would continue to be impacted from recreation and tourism facilitated by the Dalton Highway. Remote communities with air service would continue to receive the economic impacts related to shifting recreation hunting patterns, but not to the extent as under Alternative A.

Cost of Living

Travel Restrictions

Like Alternative A, Alternative E includes 0 acres of lands that are restricted for summer (May through October) OHV use in subsistence use areas and within 20 miles of communities. However, unlike Alternative A, Alternative E does have land subject to OHV timing limitations from May through June (130,000 acres). The communities that may be directly affected by summer OHV travel restrictions under Alternative E are Rampart, Ruby, Bettles, Coldfoot, Evansville, Hughes, and Wiseman. However, this impact is expected to be minimal, given that river travel, an important transportation method of rural Alaskan communities, would not be affected, and because Alternative E would continue to provide for overland travel in the fall, winter, and spring.

Similar to Alternative A, under Alternative E there would be no protection to subsistence resources offered by seasonal travel restrictions in core caribou habitat. This may increase impacts on subsistence resources, compared with the other action alternatives. The potential direct effects may increase travel distances and related fuel costs for subsistence purposes, but they may be countered by the indirect effects related to ease of accessing subsistence resources.

The impacts on household fuel costs related to travel due to the status of ANCSA17(c)(1) and ANCSA 17 (d)(1) withdrawals are addressed in the following section under lands and realty.

Lands and Realty

Alternative E has the least potential to increase household fuel costs, due to similar subsistence access from retention of ANCSA 17(c)(1) and ANCSA 17 (d)(1) withdrawals, compared to Alternative A. Considering direct effects and indirect effects, Alternative E may result in increased subsistence abundance, further reducing household fuel costs for travel, compared with Alternative A. The effects on the costs-of-living of retaining ANCSA withdrawals under Alternative E would be the similar to those described in Alternative A.

Modification of ANCSA 17(d)(1) withdrawals under Alternative E to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act and to allow for State of Alaska selection could provide a more favorable economic development environment to benefit the growth of jobs and labor income than under Alternative A. These selections would remain unavailable for mineral development until conveyed. Alternative E also has potential to increase household fuel costs, due to loss of subsistence use and access from conveyance of lands currently withdrawn under ANCSA 17(d)(1).

Subsistence

Alternative E would have impacts on subsistence most similar to Alternative A, largely due to continued subsistence use and access from retention of ANCSA 17(c)(1) and ANCSA 17 (d)(1) withdrawals. Alternative E would include the recommendation that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans where the PLOs currently do not allow for it. Once conveyed, the BLM could no longer guarantee the lands would be available for subsistence use.

Due largely to the recommendation for full retention of PLO 5150, only a partial recommendation to revoke ANCSA 17(d)(1)s for selection by Alaska Native Vietnam-era veterans, and fewer acres open to ROW location, Alternative E would have fewer impacts on subsistence resource access and abundance than Alternative A

Alternative E would strike a balance between supporting a greater degree of economic activity and decreasing economic risks for rural subsistence communities due to increased costs-of-living and decreased subsistence access, as well as positive effects on subsistence species abundance.

Conclusion

In summary, there are unlikely to be direct economic impacts that would result in measurable changes to the economic structure or model in the majority of planning area communities. However, decisions in the plan that may affect the development of mineral resources over the life of the plan may result in changes to the economic composition or the ways people in rural subsistence communities secure their livelihoods and economic well-being. Communities in the planning area that are most likely to experience indirect economic impacts include rural subsistence communities, including, Coldfoot, Wiseman, Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, Ruby, Rampart, and Stevens Village, and non-subsistence communities, including Fairbanks, Healy, and North Pole.

In general, Alternative A is likely to sustain existing economic contributions to the mixed economy and market contributions from tourism, mining, and construction industries. Alternative B, outside of limitations for subsistence access for Coldfoot and Wiseman, would decrease economic risks for rural subsistence communities due to impacts on subsistence abundance; however, it would constrain development and potential economic development opportunities in both rural subsistence and non-subsistence communities through ROW exclusions, mineral withdrawals, ACEC designations, and no surface occupancy stipulation opportunities. Alternative C1 is similar to Alternative B, except that it would be more favorable to development and hence support a greater degree of economic activity. Alternatives C2 and D would increase economic risk for rural subsistence communities due to impacts on subsistence access and abundance and support economic development in the planning area in the mining and construction industries. This may contribute to limited economic development in rural subsistence communities and may result in shifting recreation and tourism patterns to more remote communities; hence, they may result in increased market contributions to remote rural subsistence communities. Alternative E is most similar in impacts to Alternatives A and C1; it would strike a balance between supporting a greater degree if economic activity and decreasing economic risks for rural subsistence communities due to increased costs of living and decreased subsistence access, as well as positive effects on subsistence species abundance.

Economics: Cumulative Impacts

Economic activity in the planning area may increase due to increased demand for mineral materials needed for the development of roads and pipelines over the life of the plan (described in the RFDS). Projects in the planning stage that may require sand, gravel, riprap, and common fill from BLM-managed lands in the planning area include the Alaska Stand Alone Pipeline Project, the Alaska Liquid Natural Gas pipeline, the Ambler Road, and the Arctic Strategic Transportation and Resources transportation network. The estimated materials needed for these projects are 59.9 million cubic yards. This amount does not include the Arctic Strategic Transportation and Resources transportation network because the estimated gravel need is unknown currently. There are 5.2 million cubic yards of gravel authorized for mineral materials production on BLM-managed lands in the planning area that currently accommodate maintenance needs for the Dalton Highway and the Trans-Alaska Pipeline.

All alternatives would allow for new mineral materials permits to be authorized in response to demand created by these projects. Alternative A would allow the BLM to accommodate an increase in demand for mineral materials. Hence, Alternative A would support the development of jobs and labor income in mining,

construction, transportation, and utilities in response to increased demand that would result from large utility and transportation construction projects in the planning area.

Businesses with economic linkages to mining, construction, transportation, and utility industries in non-subsistence use communities, such as Fairbanks, Ester, North Pole, Big Delta, and Delta Junction, may experience direct, indirect, and induced economic impacts in the form of increased jobs and labor income, should construction activities supported by the authorization of mineral materials increase.

Given the concentration of existing mineral materials sites within the Dalton Utility Corridor and the anticipated increased demand for mineral materials, it may be that jobs and labor income for residents of Wiseman and Coldfoot may increase in regularity over the life of the plan.

All alternatives would continue to provide an opportunity to develop locatable federal mineral claims. The lands with the greatest potential locatable mineral production and related economic impacts are those lands ranked high and medium potential in the Dalton Utility Corridor. It is unknown what mineral development projects may evolve over the life of the plan, where specifically these may occur, or to what extent. This is because there are many factors that would influence development of mineral resources in the global marketplace, such as the price of mineral commodities and trade policy. Non-subsistence use communities in the planning area would be most likely to be affected by the direct expenditures to develop these mineral interests. This is because most of the existing businesses that may be directly affected and supporting industries are in urban communities. The communities of Wiseman and Coldfoot may be indirectly affected through indirect and induced spending related to placer and lode mining, but they are not likely to be directly employed in locatable mining operations.

Lands ranked as high and medium potential for locatable mineral development occur in the Ray Mountain area, where there are known deposits of rare earth minerals. The majority of these lands are either selected or top-filed, which would limit mineral exploration and operation to existing mining claims. No new mineral claims would be authorized until the lands are conveyed to the State or Native corporations or the lands are released from selection. The relatively large portion of lands selected or top-filed by the State limits the extent of exploration and operations regardless of mineral potential ranking or market conditions for the foreseeable future on these lands.

For high and medium potential ranked lands that are not selected in this area, development of these mineral deposits is unlikely over the life of the plan. While interest in developing these mineral resources in this region is high, there are currently no roads, nor existing transportation plans under development that would provide access to this area. For the aforementioned reasons, it is unlikely that these minerals in the Ray Mountain area would be developed over the life of the plan under any of the alternatives. Hence, development of high and medium potential mineralized lands in the Ray Mountain area is not expected to contribute to jobs and labor incomes for communities in the planning area.

For Alternatives B and C1, locatable mineral development may be relatively unresponsive to global market demand in the short term for the following reasons. Lands ranked as high and medium potential located in the Inner Corridor are withdrawn from mineral location and entry due to the retention of PLO 5150; therefore, these lands are not open for mineral production. The development of lands ranked as high and medium locatable mineral potential that are selected in the Outer Corridor (264,170 acres) would be constrained to existing claims until such time that State-selected lands are conveyed to the State or released from selection, regardless of global market demand or the value of gold. Upon such time that Priority 1 and 2 lands in the Outer Corridor (165,228 acres) are conveyed to the State, it is likely that mineral development and the related

economic impacts would be similar to those under Alternative A. For this analysis, this time is assumed to be after year 10 following revocation of PLO 5150 for lands identified as Priority 1 and 2 by the State. The change in landownership and mineral administration may not affect the amount or distribution of economic impacts, as described under Alternative A.

Alternatives C2 and D may result in a greater level of mineral production in the long term (over 10 years) than Alternative A; hence, they may have the larger economic impact due to the recommended revocation of PLO 5150 in the Inner Corridor. This is because in the long term, Alternatives C2 and D would create more economically feasible mineral development opportunities with relatively lower costs, given the proximity of Inner Corridor lands to the Dalton Highway. The economic impacts would be similar in distribution to Alternative A because Alternatives C2 and D would support the same industries and related communities as described under Alternative A; however, the magnitude of the economic impacts may be greater under Alternatives C2 and D. Private industry may respond to relatively new mineral opportunities provided by revoking PLO 5150 in the Inner Corridor, increasing economic activity in the short term on existing claims, and given favorable market conditions. This may increase the economic activity, jobs, and labor income in the long term upon the conveyance of lands ranked as high and medium locatable mineral potential.

Given the anticipated level of mineral development in the Inner Corridor that may arise under State ownership, potential impacts on the sport-hunting opportunities and scenic character of the Inner Corridor may degrade the existing recreation opportunities related to primitive and semi-primitive recreation opportunities. Hence, existing recreation and tourist patterns may be disrupted. Recreationists seeking these types of experiences may opt to recreate in communities that can be more easily accessed via new roads that may be constructed in the planning area or by air service. Under Alternatives C2 and D, it is anticipated that a greater portion of recreationists would opt to visit communities in more remote location than under Alternatives A, B, C1 and E. Therefore, Alternatives C2 and D may result in a greater degree of economic development in recreation and tourism industries in communities such as Tanana, Bettles, Anaktuvuk Pass, Galena, Alatna, Allakaket, Stevens Village, and Venetie or Arctic Village, to the extent these communities have the ability to capitalize on this potential source of revenue.

Recreation visitation and tourism would be largely driven by national and global economic conditions. Roads that may be developed across BLM-managed lands may increase the distribution of visitation to other communities in the planning area relatively close to new roads. This may result in new economic development opportunities in rural communities due to increased visitation from recreationists. In the long term, the roads that may be developed within the Ambler and Umiat utility and transportation corridors may result in a change in recreation and tourism patterns, as overland access to Bettles, Evansville, and Anaktuvuk Pass may be more accessible to a larger visiting population. Related economic development opportunities for guiding, lodging, and food services may arise from such developments in these communities.

The high cost of fuel combined with the long distance to markets also contribute to higher food and fuel prices in rural markets. Fuel prices affect the financial burden of households and influence the availability of financial resources to purchase other essential goods and services. Fuel prices also affect subsistence harvesters' access to subsistence resource by influencing cost of travel per unit of distance. Fuel prices are driven by market conditions that are beyond the scope of this decision; however, actions in the planning area that may drive down rural fuel prices include the development of roads, such as the road to Ambler and the road to Umiat. One study of the components of delivered fuels costs in Alaska (Fay et al. 2009) found that rural communities that were connected by road, pipeline, or railway to refineries had the lower costs per unit of fuel as compared with communities who relied on fuel supplies being delivered by air service. An analysis

of factors driving rural fuel prices in western Alaska found that one of the factors influencing the cost of fuel in rural communities was over-road access to allow for year-round delivery.

Jobs and labor income related to mineral materials production from BLM-managed lands are expected to increase over the life of the plan due to increased demand for gravel, common fill, and riprap for new roads proposed for development within the planning area.

Under Alternatives C2 and D, upon conveyance of lands top-filed and selected by the State, lands underlain by high and medium potential mineralized lands in the Inner Corridor may have a high likelihood of being developed given their proximity to the Dalton Highway. Habitat conditions that support the continued abundance of subsistence resources in the Inner Corridor may be at a heightened risk of degradation due to mineral development. Hence, there could be a reduction in the availability of subsistence resources. In addition, under State management, recreational hunting in the Dalton Highway Corridor Management Area may be encouraged, which may further increase competition between subsistence and recreational hunters. Lastly, loss of priority subsistence access due to State selection of these lands would inhibit access to subsistence regions, increasing costs to secure subsistence resources. Compared with Alternative A, these pressures may result in an increase in the cost of living for subsistence use communities by increasing the time and distance traveled to harvest subsistence resources.

S.5 REFERENCES

ADFG Division of Subsistence (Alaska Department of Fish and Game, Division of Subsistence). 2019. Alaska's economies and subsistence. Internet website (accessed on May 3, 2019): http://www.adfg.alaska.gov/static/home/library/pdfs/subsistence/ak_economies_subsistence.pdf

ADFG Joint Fish and Game Board (Alaska Department of Fish and Game, Joint Fish and Game Board). 2019. Non-subsistence use areas in Alaska. Internet website (accessed on May 7, 2019): http://www.adfg.alaska.gov/index.cfm?adfg=subsistence.nonsubsistence

Alaska DOL (Alaska Department of Labor and Workforce Development). 2019. Alaska local and regional information 2016. Workers by industry. Fairbanks, Big Delta, Ester, Bettles. Internet website (accessed on August 26, 2019): http://live.laborstats.alaska.gov/alari/index.cfm?r=3&b=8&p=92&goplace=go

BLM (U.S. Department of the Interior Bureau of Land Management). 2015. Scoping report for the Central Yukon resource management plan/environmental impact statement. Preliminary alternatives concepts public comment summary report. Internet website: https://eplanning.blm.gov/public_projects/lup/35315/56047/60740/CYRMP_Scoping_Report_Web_Final.pdf. July 2017.

_____. 2017. Central Yukon Resource Management/Environmental Impact Statement. Preliminary alternatives concepts public comment summary report. Internet website: https://eplanning.blm.gov/public_projects/lup/35315/119117/145372/CYRMP_PubAltsCmtSumryRpt_Final_508.pdf. July 2017.

Brinkman, Todd, Karonhaiakta'tie Maracle, James Kelly, Michelle Vandyke, Andrew Firmin, and Anna Springsteen. 2014. Impact of fuel costs on high-latitude subsistence activities. Ecology and Society 19(4): 18. Internet website: http://dx.doi.org/10.5751/ES-06861-190418

Brown, C.D., H. Brenner, E.H. Ikuta, B. Mikow, L.J. Retherford, A. Slayton, J. Trainor, D. Park, D. Koster, and M.L. Kostick. 2010. The Harvest and Uses of Wild Resources in Mountain Village, Marshall, Nulato, Galen, and Ruby, Alaska, 2010. Alaska Department of Fish and Game, Division of Subsistence Technical Paper No. 410, Fairbanks.

Fay, G., B. Saylor, N. Szymoniak, M. Wilson, and S. Colt, 2009. Study of the Components of Delivered Fuel Costs in Alaska, January 2009 Update. Prepared for Alaska State Legislature, Senate Finance Committee. Institute of Social and Economic Research (ISER), University of Alaska, Anchorage. Pp. 22.

NAICS (North American Industrial Classification System). 2017. Internet website (accessed August 26, 2019): https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=487&search=2017 NAICS Search

Pinstrup-Andersen, Per. 2009. Food security: Definition and measurement. International Society for Plant Pathology, 2009. DOI 10.1007/s12571-008-0002-y. Published by Springer Science, January 21, 2009, 1: 5–7.

Schmidt, J., A. Byrd, T. Brinkman, G Holdmann, A. Vilagi, and B. Bond. 2019. Fuel, wood use, and subsistence. Arctic Frontiers. Tromsø, Norway. January 24, 2019. Internet website (accessed online May 3, 2019): https://pubs.iseralaska.org/media/37b2a29b-ba63-4d6b-93eb-3529f91915a9/Schmidt_Biomass_Arctic_Frontiers_Final.pdf

Szymoniak, N., G. Fay, and A. Villalobos-Melendez. 2010. Components of Alaska fuel costs: An analysis of market factors and characteristics that influence rural fuel prices. Institute of Social and Economic Research, University of Alaska, Anchorage. Pp. 77.

Wolfe, R. J., 2004. Local traditions and subsistence: A synopsis from twenty-five years of research by the State of Alaska. Technical Paper No. 284. Alaska Department of Fish and Game, Juneau, Alaska.

Wolfe, R. J., C. L. Scott, W. Simeone, C. Utermohle, and M. Pete, 2010. The "Super-Household" in Alaska native subsistence economies. National Science Foundation, ARC 0352611. Pp. 31.

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Appendix T

Areas of Critical Environmental Concern

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ACRONYMS AND ABBREVIATIONS

	Full Phrase
ACEC	area of critical environmental concern
ANVLAP	
BLM	Bureau of Land Management
BMP	best management practice
CFR	Code of Federal Regulations
DSHA	Dall sheep habitat area
DSMC	Dall sheep movement corridor
DSSA	Dall sheep study area
GMH	Galena Mountain Herd
NSO	no surface occupancy
NWSRS	National Wild and Scenic Rivers System
OHV	off-highway vehicle
ORV	outstandingly remarkable value
PLO	Public Land Order
R&I	relevant and important
RMH	Ray Mountains Herd
RMP	resource management plan
RNA	research natural area
ROW	right-of-way
VRM	visual resource management
WSR	wild and scenic river

Appendix T. Areas of Critical Environmental Concern

Areas of critical environmental concern (ACECs) are defined in the Federal Land Policy and Management Act, Section 103(a), as an area on Bureau of Land Management (BLM) lands 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 life and ensure safety from natural hazards. The BLM regulations for implementing the ACEC provisions of the Federal Land Policy and Management Act are found in 43 Code of Federal Regulations (CFR) 1610.7-2(b).

A research natural area (RNA) is "an area that is established and maintained for the primary purpose of research and education" (43 CFR 8223). The land must have at least one of the following characteristics:

- A typical representation of a common plant or animal association
- An unusual plant or animal association
- A threatened or endangered plant or animal species
- A typical representation of common geologic, soil, or water features, outstanding or unusual geologic, soil, or water features
- A sufficient number and size to adequately provide for scientific study, research, and demonstration purposes

Special management attention refers to management prescriptions developed during preparation of a resource management plan (RMP) or RMP amendment expressly to protect the important and relevant values of an area from the potential effects of actions the RMP permits, including proposed actions deemed to be in conformance with the terms, conditions, and decisions of the RMP (BLM Manual 1613, Areas of Critical Environmental Concern [BLM 1988]). Such management measures would not be necessary or prescribed if the critical and important features were not present.

To be designated as an ACEC, the area must meet criteria of relevance and importance found in 43 CFR 1610-7-2(a)(b), and as defined in the BLM Manual 1613, Areas of Critical Environmental Concern (BLM 1988). To be eligible for designation as an ACEC, an area must meet criteria for both relevance and importance. An ACEC possesses significant historic, cultural, or scenic values; fish or wildlife resources, including habitat, communities, or species; natural processes or systems; or natural hazards. In addition, the significance of these values and resources must be substantial to satisfy the importance criteria.

ACECs differ from some other special management designations in that designation by itself does not automatically prohibit or restrict other uses in the area. The special management attention is designed specifically for the relevant and important (R&I) values; therefore, it varies from area to area. Restrictions that arise from an ACEC designation are determined at the time the designation is made, and they are designed to protect the values or serve the purposes for which the designation was made.

Goals, standards, and objectives for each proposed ACEC will be identified, as well as general management practices and uses, including necessary constraints and mitigation measures. The RMP will identify a reasonable range of alternatives that will include current management for existing ACECs, as well as

management for proposed ACECs. In addition, ACECs are protected by the provisions of 43 CFR 3809.1-4(b)(3), which require an approved plan of operations for activities resulting in more than 5 acres of disturbance under the mining laws.

T.1 CURRENT CONDITIONS

The BLM currently manages 18 ACECs in the planning area, which collectively contain 1,647,000 acres. The planning area also contains an additional six ACECs that are designated as RNAs, which collectively contain 104,000 acres; these areas are referred to as ACEC/RNAs. ACECs and ACEC/RNAs are herein collectively referred to as "ACECs". Additional information is available in Section 2.3.1, Areas of Critical Environmental Concern, at: https://eplanning.blm.gov/epl-front-office/projects/lup/35315/72940/80089/CYRMP_AMS_all_April_2016_Final.pdf. These ACECs were reevaluated as part of the RMP revision process to determine whether the R&I values of each ACEC were still present and that they required continued management attention, whether threats of irreparable damage to the values had been identified, and whether current management is sufficient to protect the values.

In accordance with the BLM Manual 1613, Areas of Critical Environmental Concern (BLM 1988), the Central Yukon Field Office interdisciplinary team reviewed all the BLM-managed lands in the planning area, including existing ACECs, to determine whether any areas should be considered for designation as ACECs. The BLM review included both internal and external nominations, as well as areas identified through inventory and monitoring, and adjacent designations of other federal and state agencies. Forty-six areas were nominated for special designation as ACECs. The results of the evaluation were used in this analysis, and they are described in the Areas of Critical Environmental Concern Report on the Application and Relevance Criteria (BLM 2015). Those ACECs for which nominated values were determined to be both R&I are referred to as "potential ACECs" and they are considered for designation. In some cases, potential ACECs encompass existing ACECs. As shown in **Table T-2**, 31 areas encompassing approximately 4,253,000 acres were determined to be potential ACECs. The BLM conducted a comprehensive evaluation of impacts on undesignated potential ACECs and the BLM's ability to protect R&I values from proposed management of other resources and resource uses.

Changes to potential ACECs and R&I values could occur as a result of climate change. Specifically, climate change could affect potential ACECs' various R&I values namely: soil, water, fish/riparian, wildlife, geologic, and vegetation values. General warming of the Arctic could result in increased erosion rates and thawing of permafrost affecting soil, geologic, and vegetation R&I values. Additionally, the retreat of Arctic sea ice; the melting of glaciers; and decreased snowpack caused by climate change also could result in depleted water resources, degrading water and vegetation R&I values. These impacts from climate change also could degrade or destroy wildlife habitat, adversely affecting wildlife and special status species R&I values. Furthermore, a warming climate is likely to change the fire regime, potentially changing the type and extent of wildlife habitat, resulting in the degradation of soils, vegetation, and wildlife habitat throughout the Arctic (Markon et al. 2018).

T.2 ALTERNATIVE E (PROPOSED PLAN)

Alternative E is the BLM's Proposed RMP, or Proposed Plan. This alternative was developed after considering public comments on the Draft RMP/EIS, internal BLM discussions, and cooperating agency input. ACECs proposed for designation in Alternative E follow watershed boundaries for fisheries-based ACECs, similar to Alternative B. The allocations associated with these ACECs consider the smallest area

necessary to protect the relevant and important values, applying special management within defined buffers to protect 100-year floodplains, where such management is warranted.

Twenty-one ACECs or RNAs (approximately 3,611,000 acres) would be designated. Management to protect relevant and important values would be less restrictive for resource uses than for Alternatives B and Alternative C1/ Alternative C2, depending on the ACEC. Under alternative E, the BLM did not designate 10 proposed ACECs because special management attention is not required to protect the potential ACEC. As explained below, standard or routine management prescriptions in the RMP are sufficient to protect the R&I values from risks or threats of damage or degradation.

Table T-1
Summary of ACECs Not Designated

Potential ACEC	Alt A ACECs (Acres)	Alt B ACECs (Acres)	Alt C1 ACECs (Acres)	Alt C2 ACECs (Acres)	Alt D ACECs (Acres)	Alt E ACECs (Acres)
Proposed ACEC not designated	13 (2,504,000)	1 (215,000)	27 (3,834,000)	30 (4,176,000)	31 (4,253,000)	10 (639,000)
Existing ACEC undesignated	N/A	N/A	15 (2,427,000)	17 (1,826,000)	18 (1,749,000)	10 (639,000)

Table T-2
Summary Evaluation of Potential ACECs and their Relevant and Important Values

#	Potential ACEC (total potential acres)	Alt A	Alt B	Alt C1	Alt C2	Alt D	Alt E	Soil	Water	Geo-logic	Fish/ Ripar-ian	Wild-life	Vege-tation	Spe-cial Spe-cies Status	Cul-tural	Scenic
1	Accomplishment Creek (41,000)	0	41,000	7,000	0	0	41,000	Yes	Yes	.	Yes	.	.	.	.	.
2	Alatna River (5,000)	0	5,000	4,000	0	0	5,000	Yes	Yes	.	Yes	.	.	.	.	.
3	Arms Lake RNA (11,000)	11,000	11,000	0	0	0	0	Yes	.	.	.	.	Yes	.	.	.
4	Galbraith Lake (53,000)	53,000	52,000	52,000	0	0	53,000	.	.	.	.	.	.	.	.	.
5	Galena Mountain (75,000)	19,000	62,000	0	0	0	0	.	.	.	.	Yes	.	.	.	.
6	Hogatza River Tributaries (221,000)	5,000	221,000	0	0	0	221,000	Yes	Yes	.	Yes	.	.	.	.	.
7	Huslia River (73,000)	0	0	0	0	0	73,000	Yes	Yes	.	Yes	.	.	.	.	.
8	Indian River (175,000)	155,000	173,000	0	0	0	173,000	Yes	Yes	.	Yes	.	.	.	.	.
9	Ishtalitna Creek Hot Springs RNA (1,000)	1,000	1,000	0	0	0	0	Yes	Yes	.	.	.	Yes	.	.	.
10	Jim River (304,000)	203,000	303,000	30,000	0	0	303,000	Yes	Yes	.	.	Yes	.	.	Yes	.
11	Kanuti Hot Springs (160)	40	160	0	0	0	0	Yes	Yes	.		.	.	.	.	.
12	Klikhtentotzna Creek (108,000)	0	108,000	0	0	0	108,000	Yes	Yes	.	Yes	.		.	.	.
13	Lake Todatonten Pingos RNA (1,000)	1,000	1,000	0	0	0	0	Yes	Yes	.	.	.	Yes	.	.	.
14	McQuesten Creek RNA (4,000)	4,000	4,000	0	0	0	0	Yes	Yes	.	.	.	Yes	.	.	.
15	Mentanontli River/Lake Todatonten (20,000)	0	20,000	0	0	0	20,000	.	.	.	Yes		.	.	.	.
16	Midnight Dome/Kalhabuk (10,000)	0	10,000	0	0	0	10,000	Yes	.	.	.	Yes	.	.	.	.

#	Potential ACEC (total potential acres)	Alt A	Alt B	Alt C1	Alt C2	Alt D	Alt E	Soil	Water	Geo-logic	Fish/ Ripar-ian	Wild-life	Vege-tation	Spe-cial Spe-cies Status	Cul-tural	Scenic
17	Nugget Creek (3,000)	3,000	3,000	0	0	0	3,000	Yes	.	.	.	Yes	.	.	.	.
18	Poss Mountain (25,000)	9,000	25,000	0	0	0	25,000	Yes	.	.	.	Yes	.	.	.	.
19	Redlands Lake RNA (4,000)	4,000	4,000	0	0	0	0	Yes	.	.	.	.	Yes	.	.	.
20	Sethkokna River (299,000)	0	299,000	0	0	0	299,000	Yes	Yes	.	Yes	.	.	.	.	.
21	South Fork Koyukuk River (415,000)	0	415,000	44,000	0	0	415,000	Yes	Yes	.	Yes	.	.	.	.	.
22	South Todatonten Summit RNA (1,000)	1,000	1,000	0	0	0	0	Yes	Yes	.	.	.	Yes	.	.	.
23	Spooky Valley RNA (10,000)	10,000	9,000	0	0	0	0	.	.	.	.	Yes	Yes	.	.	.
24	Snowden Mountain (51,000)	30,000	0	0	0	0	50,000	.	.	.	Yes	.	.	.	.	.
	Sukakpak Mountain (3,000)	3,000	0	0	0	0	0	.	.	.	Yes	.	.	.	.	.
	Sukakpak Mountain/ Snowden Mountain (124,000)	0	124,000	124,000	0	0	0	.	.	Yes	Yes	.	.	.	.	Yes
25	Sulukna River (398,000)	25,000	398,000	51,000	0	0	398,000	Yes	Yes	.	Yes	Yes			.	.
26	Toolik RNA (106,000)	77,000	106,000	106,000	77,000	0	106,000	.	.	.	.	.	Yes	Yes	.	.
27	Tozitna (1,043,000)	0	1,043,000	0	0	0	835,000	Yes	Yes	.	Yes	Yes	.	.	.	.
	Tozitna River (842,000)	842,000	0	0	0	0	0	Yes	Yes	.	Yes		.	.	.	.
	Tozitna Subunits North and South (192,000)	192,000	0	0	0	0	0	Yes	Yes	.	Yes	Yes	.	.	.	.
28	Upper Kanuti River (50,000)	0	50,000	0	0	0	0	.	.	.	.	Yes	.	.	Yes	.
29	Upper Teedriinjik (Chandalar) River (295,000)	0	295,000	0	0	0	295,000	Yes	Yes	.	Yes	.	.		.	.
30	West Fork Atigun River (34,000)	9,000	33,000	0	0	0	33,000	Yes	.	.	.	Yes	.	.	.	.

#	Potential ACEC (total potential acres)	Alt A	Alt B	Alt C1	Alt C2	Alt D	Alt E	Soil	Water	Geo-logic	Fish/ Ripar-ian	Wild-life	Vege-tation	Spe-cial Spe-cies Status	Cul-tural	Scenic
31	Wheeler Creek (145,000)	0	145,000	0	0	0	145,000	Yes	Yes	.	Yes	.	.	.	.	.

Source: BLM 2015; BLM GIS 2017

Note: Each • above indicates that a R&I value was not identified for that potential ACEC. A portion of the Alternative A, Spooky Valley ACEC was not carried forward therefore the acres are different. The Dulbi River and Nigu-Iteriak are only ACECs in Alternative A and therefore not carried forward in this analysis.

T.3 DIRECT AND INDIRECT IMPACTS

(See **Appendix M** for the analytical issues related to ACECs and the analytical methods used in this analysis.)

Direct impacts on potential ACECs are those that either impair or enhance the R&I values for which the potential ACEC was proposed for designation. As such, this analysis focuses on relevance and importance criteria for each potential ACEC and impacts on these values from either the special management derived from ACEC designation or, under alternatives where an ACEC is not proposed for designation, the management actions for other resources. All impacts discussed are direct impacts, though some may not occur immediately after implementation of management actions.

The effects of climate change described in the affected environment above could influence the rate or degree of the potential direct and indirect impacts.

The mining regulations also require that within ACECs, even exploration level activities are required to be authorized under a full Plan of Operations, which entails full NEPA review and more opportunities to avoid or minimize impacts to R&I values.

T.4 METHODS AND ASSUMPTIONS

The analysis area used to analyze impacts on ACECs includes each ACEC within the Central Yukon RMP decision area. Impacts identified for ACECs are specific to the area and they are based on the impact that management actions would have on the R&I values of an ACEC.

Indicators

The indicator of impacts on potential ACECs is the following: management actions that would fail to "prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards" (BLM 1988).

Assumptions

This analysis assumes the following:

- Although management actions for most resources and resource uses could have decision area-wide application, ACEC management prescriptions apply only to those lands in each specific ACEC.
- Any management actions affecting less than 1,000 acres were not evaluated in this analysis given the margin of error for the geographic information system data.
- ACEC designation provides protection and focused management for relevant values beyond that provided through general management of the parent resource (e.g., the cultural resource ACECs will receive greater recognition and protection than the general management action regarding cultural resources).
- Permitted activities are assumed to have mitigations proposed so as not to impair the R&I values for which an ACEC is designated. The exception is locatable minerals; until withdrawn from mineral entry, a mining claim can be filed, and subsequent mining could affect R&I values of the ACEC. Specific impacts on R&I values would depend on the type of mineral entry activity and the effectiveness of subsequent reclamation, and the mineral entry's interaction (both spatially and temporally) with that value.
- Impacts resulting from locatable minerals would be subject to 43 CFR 3809 intended to (1) prevent unnecessary or undue degradation of the land and reclaimed disturbed areas and (2) provide for

maximum possible coordination with state agencies to avoid duplication and to ensure that operators prevent unnecessary or undue degradation of public lands.

T.5 Impacts Common to All Action Alternatives

Designated ACECs are those acres of potential ACECs that would be designated under a given alternative, while undesignated ACECs are those acres of potential ACECs that would not be designated under a given alternative. Under alternatives where ACECs are proposed for designation, special management for ACECs provides a more focused approach to protecting R&I values; therefore, ACEC designation would be the most protective of R&I values. Under alternatives where ACECs are not proposed for designation, protection of R&I values relies on the management under other resources or resource uses and management requirements under law, policy, and regulation. Incidental protections would usually be in a more generalized manner.

In general, management actions that protect resources—such as: improvements in water quality and quantity, surface disturbance restrictions, management for desired plant communities and habitats, travel restrictions and closures, and recreation restrictions—would help maintain and improve R&I values within undesignated ACECs. Likewise, management actions that create the potential for resource degradation—such as mineral and infrastructure development—could lead to impacts on R&I values within undesignated ACECs. However, implementing various restrictions, policies, stipulations, and best management practices (BMPs) could help reduce these impacts on R&I values.

T.6 Alternatives Comparison Analysis

This section discusses impacts on undesignated potential ACECs and the BLM's ability to protect R&I values from proposed management of other resources and resource uses. This section is structured by ACEC then by alternative within the ACEC. ACEC designation is considered in Alternatives A, B, C1, C2, and E. Alternative D would not designate ACECs.

T.7 Accomplishment Creek

Alternative A (No Action)

Under Alternative A, the entire potential ACEC (41,000 acres) is not designated. The area where Dolly Varden trout can overwinter is limited. The Dolly Varden trout overwintering habitat identified as a fish R&I value in the potential ACEC is threatened by impacts on subsurface flow and streamflow from river crossings and activities within the floodplain. The area is easily accessed by the Sagavanirktok River drainage via the Dalton Highway. Additionally, because this area's watershed is adjacent to the Dalton Highway, the water R&I value is also threatened, given that the potential for disturbance to water is high if permitted motorized access increases under this RMP. Consequently, any direct or indirect protection from management actions for other resources within the undesignated potential ACEC would help prevent further threat to these R&I values.

Additionally, all 41,000 undesignated acres are encumbered under Public Land Order (PLO) 5150, of which 7,000 acres (17 percent of the undesignated area, the portion in the Inner Corridor) would continue to be withdrawn from locatable mineral entry, and 41,000 acres (100 percent of the undesignated area) would continue to be withdrawn from fluid mineral leasing. This would help protect R&I values by prohibiting surface-disturbing activities on these acres. However, 34,000 undesignated acres (83 percent of the undesignated area) would continue to be available for locatable mineral entry (the portion in the Outer Corridor), and the entire undesignated area would continue to be open to mineral material sales. The R&I values in open areas could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of soils and fish habitat; erosion that could degrade aquatic habitats; and contamination of surface water from wastewater spills and runoff.

Limiting off-highway vehicle (OHV) travel to existing routes on all undesignated acres would reduce impacts on R&I values from motorized and mechanized travel by limiting surface disturbance and vegetation destruction.

Alternative B

The entire potential ACEC (41,000 acres) would be designated to protect crucial Dolly Varden trout overwintering habitat resulting in the most protection of R&I values of all the alternatives. The management prescriptions identified in **Appendix J** would help protect R&I values within this designated ACEC and reduce threats to R&I values. Crucially, under Alternative B, the BLM would pursue a withdrawal of the entire ACEC. Therefore, the lands currently segregated per PLO 5150 would be withdrawn from locatable mineral entry.

Alternative C1

Under this alternative, 17 percent (7,000 acres) of the potential ACEC would be designated to protect crucial Dolly Varden trout overwintering habitat, concentrating on the streams and streambeds. The management prescriptions identified in **Appendix J** would help protect R&I values within the 7,000 acres of the ACEC and reduce threats to R&I values.

However, PLO 5150 would be recommended for revocation for 28,000 acres (82 percent of the undesignated area), all of which are in the outer corridor. They would continue to be available for locatable mineral entry and fluid mineral leasing. Impacts would be the same as those described under Alternative A, but they would occur over a smaller area (13,000 fewer acres available for fluid mineral leasing, [(13,000 fewer acres available for fluid mineral leasing (41,000 acres withdrawn from fluid minerals in Alternative A compared to Alternative B, 28,000 acres open, but segregated, 7,000 acres open but subject to CSU, and 6,000 acres would still be withdrawn], and 6,000 fewer acres available for locatable mineral entry [34,000 acres available in Alternative A compared to only 28,000 acres open in Alternative C1], respectively). Fewer acres open to leasing and mineral entry would result in fewer impacts than those described under Alternative A for this management action. All 28,000 acres available for locatable mineral entry would be top-filed. For top-filed lands in the undesignated acres retained under PLO 5150, were the PLO revoked, those lands would become valid selections and they would no longer be open to further federal mineral entry. In addition, all 34,000 acres in the undesignated potential ACEC would be open to mineral material sales. Impacts would be the same type as those described under Alternative A, but they would occur over a smaller area (7,000 fewer acres). This would result in fewer impacts than those described under Alternative A.

Only 6,000 acres (18 percent of the undesignated area) would be encumbered under PLO 5150, and they would be withdrawn from locatable mineral entry and fluid mineral leasing. This would help to protect soil and water R&I values by prohibiting surface-disturbing activities in these acres; however, there would be 35,000 fewer acres than under Alternative A.

Limiting OHV travel on all 34,000 undesignated acres would have the same impacts as those described under Alternative A, but they would be limited to a smaller area (7,000 acres less than Alternative A).

All of the undesignated acres overlap with lands with wilderness characteristics that are managed to emphasize other resource values and multiple uses while applying management restrictions to reduce impacts on wilderness characteristics. These areas would provide protections, ROW avoidance, and no surface occupancy (NSO) stipulations for fluid mineral leasing. Additionally, the BLM would retain non-State-selected BLM-managed lands and those not conveyed under the Alaska Statehood Act and Alaska Native Claims Settlement Act in federal ownership in these areas. As a result, these restrictions and closures would indirectly protect

R&I values. However, allowing some mineral material sales vegetation treatment and prescribed fire also could degrade R&I values in this area. Compared with Alternative A, which does not designate any acres as lands with wilderness characteristics, Alternative C1 would provide more protection for R&I values from this management action.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (41,000 acres) would not be designated. The entire undesignated area (41,000 acres) would overlap with proposed utility corridors, which replace a withdrawal for the same purpose.

Additionally, PLO 5150 would be recommended for revocation on these 41,000 acres. These acres would be open to locatable mineral entry (except on 7,000 more acres for locatable mineral entry), fluid mineral leasing, and mineral material sales, which would result in the greater impacts than in Alternative A. All 41,000 of the acres open for locatable mineral entry would be top-filed and therefore segregated from entry.

Limiting OHV travel on all undesignated acres would have the same impacts as those described under Alternative A.

Alternative D

The entire potential ACEC (41,000 acres) would not be designated. Within the undesignated area, 7,000 acres (17 percent) would overlap with an administrative designation for a utility corridor to replace the current withdrawal for the same purpose.

PLO 5150 would be recommended for revocation for all 41,000 acres of the undesignated acres. All 41,000 of the acres open for locatable mineral entry would be top-filed and therefore segregated from entry. These acres would be open to mineral material sales, which would result in the same impacts as those described under Alternative A. However, 7,000 more acres would be available for locatable mineral entry, resulting in more impacts on R&I values than Alternative A for this management action.

Lastly, limiting OHV travel to existing routes on all undesignated acres would have the same impacts as those described under Alternative A.

Alternative E (Proposed Plan)

The entire potential ACEC (41,000 acres) would be designated to protect crucial Dolly Varden trout overwintering habitat resulting in protection of R&I values. The management prescriptions identified in **Appendix J** would help protect R&I values within this designated ACEC and reduce threats to R&I values.

Like Alternative A, all 41,000 acres are encumbered under PLO 5150, of which 7,000 acres (17 percent of the area) would continue to be withdrawn from locatable mineral entry and fluid mineral leasing. This would help protect R&I values by prohibiting surface-disturbing activities on these acres.

Furthermore, the entirety of the ACEC would be closed to mineral material sales, like Alternative B, and NSO for fluid minerals. This would protect habitat from surface-disturbing activities associated with fluid minerals development. The R&I values in open areas could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of soils and fish habitat; erosion that could degrade aquatic habitats; and contamination of surface water from wastewater spills and runoff.

T.8 ALATNA RIVER

Alternative A (No Action)

Under Alternative A, the entire potential ACEC (5,000 acres) is not designated. The Alatna River provides a spawning ground for sheefish, an important subsistence fish for interior residents. Because the area is surrounded by non-BLM-managed land, any changes in landownership could decrease access to this area for subsistence users. Additionally, these 5,000 undesignated acres would continue to be retained under an ANCSA 17(d)(1) withdrawal for PLO 5173, and they would continue to be withdrawn from locatable mineral entry and fluid mineral leasing. These actions would prohibit surface-disturbing activities associated with minerals development, helping to protect the already threatened R&I values in this area. However, these 5,000 undesignated acres also would continue to be open to mineral material sales, which could affect R&I values by allowing for more mineral development.

Alternative B

The entire potential ACEC (5,000 acres) would be designated to protect crucial whitefish spawning habitat, supporting the main subsistence fishery resources for villages in the Upper Koyukuk River. This would result in the greatest protection of R&I values of the alternatives. The management prescriptions identified in **Appendix J** would help protect R&I values within this designated ACEC and reduce threats to R&I values.

Alternative C1

Under this alternative, 80 percent (4,000 acres) of the potential ACEC would be designated to protect crucial whitefish spawning habitat, supporting the main subsistence fishery resources for villages in the Upper Koyukuk River. Designating these acres would result in greater protections for R&I values than under Alternative A, which does not designate any acres. The management prescriptions identified in **Appendix J** would help protect R&I values within this designated portion of the ACEC and reduce threats to R&I values.

In the remaining 20 percent of the potential ACEC (1,000 acres), outside of the designated area, all acres would be available for locatable mineral entry and fluid mineral leasing. They also would be open to mineral material sales. Of the acres open for locatable mineral entry, 1,000 acres would be state-selected, segregated from mineral entry. While the mineral potential is low, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of soils and fish habitat, erosion that could degrade aquatic habitats, and contamination of surface water from wastewater spills and runoff. This area is remote, and access is limited for development. Compared with Alternative A, which retains all 5,000 acres and withdraws these acres from fluid mineral leasing, Alternative C1 could cause more impacts on R&I values from this management action.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (5,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative A.

Alternative D

The entire potential ACEC (5,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative C2.

Alternative E (Proposed Plan)

The entire potential ACEC (5,000 acres) would be designated to protect crucial whitefish spawning habitat, supporting the main subsistence fishery resources for villages in the Upper Koyukuk River. This would result in the protection of R&I values similar to Alternative B.

Alternative E would recommend that the Secretary revoke in part 5.2 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

The Native Vietnam-Era Veterans Land Allotment Program (ANVLAP) Environmental Assessment (DOI-BLM-AK-0000-2021-0005-EA) described and analyzed potential impacts to fish and anadromous fish habitat from the same type of partial revocation and is incorporated by reference. The Environmental Assessment quantified disturbance types and proximity to rivers, streams, and floodplains on 163 randomly selected Alaska Native Allotments across the State of Alaska. It determined that potential negative effects to local water quality and aquatic resources are likely to be minimal if future land use practices remain similar in scope and scale to historic levels. Based on this analysis it is anticipated that the partial revocation would result in minimal impacts to fish and fish habitat, including the crucial whitefish spawning habitat R&I values for the Alatna River ACEC under Alternative E.

The management prescriptions identified in **Appendix J** would help protect R&I values within this designated ACEC and reduce threats to R&I values.

T.9 Arms Lake RNA

Alternative A (No Action)

The entire potential ACEC/RNA would continue to be designated (11,000 acres) to protect the sand dune complex and associated vegetation and limnological characteristics. Although this is a research area, no known research has been conducted in more than 20 years. The management prescriptions identified in **Appendix J** would help protect R&I values and reduce the threats to R&I values.

Alternative B

The entire potential ACEC/RNA would be designated (11,000 acres). Management actions for other resources and impacts on R&I values would be the same as those described under Alternative A.

Alternative C1

The entire potential ACEC/RNA (11,000 acres) would not be designated. While OHVs or other surface-disturbing activities could potentially affect sand dunes, the sand dunes in this area do not currently have immediate access, so disturbance is unlikely. Consequently, any direct or indirect protections from management actions on undesignated acres could help preserve the soil and vegetation R&I values in the area.

All 11,000 undesignated acres would be unavailable for locatable mineral entry, but open to metalliferous mineral entry. Arms Lake ACEC/RNA has no potential for locatable mineral entry or mining. All 11,000 undesignated acres would be open to mineral material sales, and the 11,000 acres would be withdrawn from fluid mineral leasing. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of vegetation and erosion that could degrade soils; however, mineral potential here is low and therefore these degradation impacts are unlikely to occur during the life of this plan.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC/RNA (11,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C1.

Alternative D

The entire potential ACEC/RNA (11,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C1.

Alternative E (Proposed Plan)

The entire potential ACEC/RNA (11,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative C1. While OHVs or other surface-disturbing activities could potentially affect sand dunes, the sand dunes in this area are difficult to access due to the geography of the area, so disturbance is unlikely. Consequently, any direct or indirect protections from management actions on undesignated acres could help preserve the soil and vegetation R&I values in the area.

Alternative E would recommend that the Secretary revoke in part 5.2 million acres of ANCSA 17(d)(1) PLOs solely for the purposes of allowing selection by Alaska Native Vietnam-era veterans under the Dingell Act. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building trails, houses or hunting lodges or hunting and fishing; this would convert vegetation to other vegetation or development. Based on the ANVLAP analysis, impacts to the values of sand dune complex and associated vegetation and limnological characteristics are expected to be limited based on historic land use patterns on Native Allotments in Alaska.

The BLM would not designate this ACEC because, although this is a research area, no known research has been conducted in more than 20 years.

Special management attention is not required to protect the potential Arms Lake ACEC/RNA because standard or routine management prescriptions are sufficient to protect the resource or value from risks or threats of damage/degradation. The R&I values, specifically the sand dunes, are adequately protected under the general management provisions of Alternative E; in particular the Arms Lake area is withdrawn by PLO 5180 which closes the lands to mineral leasing and mineral entry (but open to metalliferous). Further, the RFD (**Appendix N**) determined that the area has low mineral development potential and so impacts from metalliferous mineral development are unlikely. And, because the area is bordered by private land on the north and east sides, there is limited access for OHVs to the sand dunes.

T.10 GALBRAITH LAKE

Alternative A (No Action)

The entire potential ACEC (53,000 acres) would continue to be designated to protect cultural resources, rare or sensitive plants, high scenic values, and crucial Dall sheep lambing areas. The management prescriptions identified in **Appendix J** would help protect the wildlife R&I value and reduce threats to this value.[1]

Alternative B

The entire potential ACEC (52,000 acres) would be designated to protect cultural resources, high scenic values, and crucial Dall sheep habitat, including mineral licks. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative A. The ACEC boundary was slightly redrawn (smaller) in the action alternatives to only encompass areas with R&I values.[1]

[1] The acreage of the ACEC in the action alternatives is approximately 1,000 acres less than the ACEC in Alternative A because the BLM's review of the current ACEC boundary determined that approximately 1.8% of the ACEC no longer contains R&I values. Therefore, in the action alternatives the potential ACEC size is 52,000 acres.

Alternative C1

The entire potential ACEC (52,000 acres) would be designated to protect wildlife, including crucial Dall sheep habitat. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative A.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (52,000 acres) would not be designated. The R&I value of the wildlife has increased pressure on the resource due to immediate access from the Dalton Highway, which increases access to Dall Sheep habitat. Additionally, noise from truck and air transportation used to support utility projects associated with the utility corridor could affect Dall sheep habitat. Additional ROW permits stemming from the utility corridor in high ground areas may cross Dall sheep habitat, which could affect this species. Consequently, any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help preserve the soil and vegetation R&I values related to the habitat.

Limiting OHV travel to existing routes on all 52,000 undesignated acres would reduce impacts on the wildlife R&I value from motorized and mechanized travel by limiting wildlife disturbance and habitat fragmentation. However, the entire undesignated area would overlap with proposed utility corridors, which replace a withdrawal for the same purpose. Construction within utility corridors could degrade R&I values due to impacts from surface disturbance and infrastructure associated with this development, including destroying wildlife habitat and disturbing wildlife; without a designation, the likelihood of mitigation measures for permitted development projects to protect the R&I value is low.

PLO 5150 would be recommended for revocation on these 52,000 acres. These acres would be available for locatable mineral entry and fluid mineral leasing, and they would be open to mineral material sales. However, all 52,000 acres of the acres open for locatable mineral entry would be top-filed and therefore segregated from entry. As a result this ACEC being open to fluid minerals and mineral material sales, the wildlife R&I value could be degraded due to impacts from surface disturbance and infrastructure associated with this development, including destroying wildlife habitat and disturbing wildlife. The area would be managed as a visual resource management (VRM) Class III, which could impair the scenic R&I values. Managing the ACEC as VRM Class III would require fewer mitigation measures to meet visual resource objectives compared with VRM Class II.

Compared with Alternative A, Alternative C2 would cause more adverse impacts on R&I values from all of the above management actions.

Alternative D

The entire potential ACEC (52,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C2.

Alternative E (Proposed Plan)

The entire potential ACEC (52,000 acres) would be designated to protect cultural resources, high scenic values, and crucial Dall sheep habitat, including mineral licks. Management actions for other resources and impacts on R&I values would be the similar to those described under Alternative A.

Alternative E would recommend that the Secretary revoke in part 5.2 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

The ANVLAP analysis quantified disturbance types and proximity to cultural resources and historic sites for 902 known cultural resources sites through the Alaska Office of History and Archaeology database within the acres under consideration for allotment selection across the State of Alaska. It determined that potential negative effects to cultural resources and high scenic values are likely to be minimal if future land use practices remain similar in scope and scale to historic levels. Some activities the BLM expects could occur as result of allotment selection, such as clearing land, building a cabin, or developing a camping area could temporarily disturb Dall sheep. However, opening these lands to allotment selection is not likely to adversely affect and R&I value of Dall sheep or Dall sheep habitat. Based on this analysis it is anticipated that the partial revocation would result in minimal impacts to cultural resource R&I values for the Galbraith Lake ACEC under Alternative E.

T.11 GALENA MOUNTAIN

Alternative A (No Action)

Under this alternative, 19,000 acres of the 75,000 total acres in the potential ACEC (25 percent) would continue to be designated to protect the calving grounds of the Galena Mountain Herd (GMH). The management prescriptions identified in **Appendix J** would help protect the wildlife R&I value and reduce threats to this value.

The herd size is approximately 125 individuals. It is in decline due to low recruitment from other herds and low calf survival. Consequently, any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help protect the R&I values.

Of the remaining 56,000 undesignated acres, 16,000 acres (29 percent of the undesignated ACEC) would be open to locatable mineral entry. This could affect the wildlife R&I value due to surface disturbance and infrastructure development. These 16,000 acres would be state-selected, segregated from mineral entry.

The undesignated acres (56,000 acres, or 75 percent of the entire potential ACEC) would continue to be withdrawn from fluid mineral leasing but 40,000 acres (73 percent of the undesignated ACEC) would be open to metalliferous mining. If these activities were to occur, this could result in the degradation of the wildlife R&I value due to wildlife habitat destruction and wildlife disturbance.

Alternative B

Under this alternative, 62,000 acres of the entire potential ACEC (83 percent) would be designated to protect the calving grounds of the GMH. This would result in greater protections for R&I values than Alternative A, as 43,000 more acres would be designated than under Alternative A. The management prescriptions identified in **Appendix J** would help protect R&I values and reduce threats to R&I values.

Alternative C1

Under this alternative, the entire potential ACEC (75,000 acres) would not be designated. These 75,000 undesignated acres would be available for locatable mineral entry and withdrawn from fluid mineral leasing; however, the mineral potential is low. Of the acres open for locatable mineral entry, 29,000 acres would be state-selected, segregated from mineral entry. The 75,000 acres withdrawn from fluid mineral leasing would result in comparable impacts to R&I values as under Alternative A, which would continue to withdraw 55,000 undesignated acres from fluid mineral leasing.

However, 62,000 acres would be closed to mineral material sales. This could result in more protections for the wildlife R&I by limiting wildlife disturbance and wildlife habitat destruction, compared with Alternative A, which opens 56,000 acres to mineral material sales.

Limiting 62,000 undesignated acres to a timing limitation for OHV use during core caribou calving from May 1 to June 30 would be more protective of the wildlife R&I value than Alternative A, helping to reduce impacts on the GMH.

Of the 75,000 undesignated acres, 89 percent would overlap with ROW avoidance areas. R&I values could be degraded if development requiring a ROW permit were to occur in the area; however, prohibiting commercial energy development and allowing only minor land use authorizations would continue to help protect ACEC values by minimizing or eliminating surface disturbance associated with development. Compared with Alternative A, which does not overlap with any ROW avoidance areas, Alternative C1 would result in greater protections for R&I values (specifically for the GMH).

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (75,000 acres) would not be designated, resulting in more impacts on R&I values than under Alternative A.

The entire potential ACEC would be open to locatable mineral entry and withdrawn from fluid mineral leasing. There would be 13,000 acres (17 percent of the undesignated area) open to mineral material sales, resulting in more impacts on R&I values than Alternative A. Of the acres open to locatable mineral entry, 29,000 acres would be State-selected, segregated from mineral entry. There would be 62,000 acres (83 percent of the undesignated area) closed to mineral material sales, which could help protect R&I values.

There would be 62,000 undesignated acres (83 percent of the undesignated area) that would overlap with ROW avoidance areas to protect core habitat for the GMH. This would result in the same type of impacts as those described under Alternative C1.

Alternative D

The entire potential ACEC (75,000 acres) would not be designated, resulting in more impacts on R&I values than under Alternative A. The entire undesignated area would be available for locatable mineral entry and withdrawn from fluid mineral leasing, resulting in the same impacts as those described under Alternative C2. However, 75,000 acres (100 percent of the undesignated area) also would be open to mineral material sales, which could affect R&I values by allowing for more mineral development. It should be noted that there are no caribou habitat management allocations specific to Galena Mountain under this alternative.

Additionally, 74,000 undesignated acres (99 percent of the undesignated area) would be open to commercial timber development, which could degrade the wildlife R&I value by causing surface disturbance and affecting wildlife habitat. Compared with Alternative A, Alternative D would result in greater impacts on R&I values. This is because 56,000 undesignated acres would be open to commercial timber development under Alternative A.

Alternative E (Proposed Plan)

The entire potential ACEC (75,000 acres) would not be designated, resulting in fewer direct protections from ACEC designation for R&I values than under Alternative A. The undesignated ACEC is in PLO 5180 and so 75,000 undesignated acres would be open to metalliferous locatable mineral entry; and regardless, the mineral potential is also low. The entire potential ACEC would remain withdrawn from fluid mineral leasing; and regardless, the mineral fluid mineral potential is also low. Of the acres open for locatable mineral entry, 29,000 are State-selected and segregated from mineral entry.

Of the total area, 62,000 acres would be closed to mineral material sales. This closure would result in more protections for the wildlife R&I by limiting wildlife disturbance and wildlife habitat destruction, compared with Alternative A, in which 56,000 acres is open to mineral material sales.

There would be a seasonal OHV limitation on 62,000 acres for caribou calving, which would result in similar protections to the GMH from motorized travel as described under Alternatives B and C1.

Of the total area, 62,000 undesignated acres (83 percent of the entire potential ACEC) would overlap with ROW avoidance areas; impacts would be the same as under Alternative C1. The remaining undesignated acres would be available for ROW location; impacts would be the same as under Alternative A in this area.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

The ANVLAP analysis concluded that some activities the BLM expects could occur as result of allotment selection, such as clearing land, building a cabin, or developing a camping area could temporarily disturb Dall sheep. However, opening these lands to allotment selection is not likely to adversely affect and R&I value of calving grounds of the (GMH). Based on this analysis it is anticipated that the partial revocation would result in minimal impacts to cultural resource R&I values for the Galbraith Lake ACEC under Alternative E.

Special management attention is not required to protect the potential Galena Mountain ACEC because standard or routine management prescriptions are sufficient to protect the resource or value from risks or threats of damage/degradation. The other management measures of ROW avoidance and closed to mineral material disposal would protect the Galena Mountain Herd core caribou range's R&I values of core caribou range. The mineral closures to mineral leasing along with low potential for mineral development would protect the R&I values. The BLM would not designate this ACEC because the Galena Mountain Herd boundary more accurately captures the small part of the mountain for caribou herd use than the ACEC boundary.

T.12 HOGATZA RIVER TRIBUTARIES

Alternative A (No Action)

Only 2 percent (5,000 acres) of the entire potential ACEC (221,000 acres) would continue to be designated to protect crucial salmon spawning habitat. The management prescriptions identified in **Appendix J** would help protect R&I values and reduce threats to R&I values.

Mining development opportunities in several of the Hogatza River's tributaries (Clear and Caribou Creeks) have the potential to affect water resources, aquatic habitat, and fisheries. Additionally, chum salmon spawning habitat in the Clear Creek drainage is on the watch list for the BLM special status species. Consequently, any direct or indirect protections from management actions for other resources within the undesignated potential ACEC would help protect these values.

For example, of the remaining undesignated acres (216,000 acres, or 98 percent of the entire potential ACEC), 41,000 acres (19 percent of the undesignated area) overlap with rivers identified as eligible or suitable for inclusion in the National Wild and Scenic River System (NWSRS). The acres that overlap or are adjacent to these eligible or suitable segments would receive some indirect protection from wild and scenic river (WSR) management, especially for the fish/riparian and water R&I values. Consequently, this indirect protection likely would include protection for crucial salmon spawning habitat and riparian vegetation within the

Hogatza River tributaries. This is because the BLM would take no action that would adversely affect the free-flowing condition, outstandingly remarkable values (ORVs) and adequate water quality to support ORVs, or tentative classification of the eligible or suitable segments.

Additionally, 96 percent of the undesignated area (216,000 acres) would continue to be retained under the ANCSA 17(d)(1) PLOs.

However, 153,000 acres (71 percent of the undesignated area) would continue to be available for locatable mineral entry and 213,000 acres (98 percent of the undesignated area) would be withdrawn from fluid mineral leasing. 216,000 undesignated acres would continue to be open to mineral material sales. Of the acres open for locatable mineral entry, 1,000 acres would be State-selected, segregated from mineral entry. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of soils and fish habitat; erosion that could degrade aquatic habitats; and contamination of surface water from wastewater spills and runoff.

Alternative B

The entire potential ACEC (221,000 acres) would be designated to protect crucial chum salmon summer spawning habitat. This would result in greater protections for R&I values than Alternative A.

ANCSA 17(d)(1) withdrawals would be recommended for revocation for 67,000 acres (30 percent of the designated area).

The management prescriptions identified in **Appendix J** would help protect R&I values and reduce threats to R&I values.

Alternative C1

The entire potential ACEC (221,000 acres) would not be designated, resulting in less protections for R&I values than Alternative A. Withdrawals would be recommended for revocation for 67,000 acres (30 percent of the undesignated area). The 221,000 undesignated acres would be available for locatable mineral entry and 71,000 undesignated acres open to fluid mineral leasing (67,000 more acres than Alternative A) and 221,000 acres open to mineral material sales (4,000 more acres than Alternative A). This would result in the same type of impacts as those described under Alternative A, but over a larger area. Of the acres open to locatable mineral entry, 26,000 acres would be State-selected, segregated from mineral entry. However, 125,000 acres (57 percent of the undesignated area) would be subject to controlled surface use stipulations for fluid mineral leasing, while 5,000 acres (2 percent of the undesignated area) would be subject to NSO stipulations. These would reduce impacts on R&I values by limiting surface disturbance.

A total of 64,000 undesignated acres (29 percent of the undesignated area) would overlap with areas closed to commercial timber development. Making this area unavailable for commercial timber development would preclude timber infrastructure development and surface disturbance. This would result in greater protection of R&I values from this management action than Alternative A, which does not overlap with any acres closed to commercial timber development. However, 157,000 acres (71 percent of the undesignated area) would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative C1 would result in fewer impacts on R&I values. This is because 60,000 more acres would be open to commercial timber development under Alternative A.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (221,000 acres) would not be designated, resulting in less protections for R&I values than Alternative A.

216,000 undesignated acres would be available for locatable mineral entry, A total of 71,000 undesignated acres would be open to fluid mineral leasing (67,000 more acres than Alternative A) and 221,000 undesignated acres open to mineral material sales (4,000 more acres than Alternative A). This would result in the same type of impacts as those described under Alternative A, but over a larger area. Of the acres open to locatable mineral entry, 26,000 acres would be State-selected, segregated from mineral entry.

157,000 undesignated acres would be open to commercial timber development, which could degrade the R&I values by causing surface disturbance and affecting wildlife habitat. Compared with Alternative A, Alternative C2 would result in fewer impacts on R&I values. This is because 60,000 more acres would be open to commercial timber development under Alternative A.

Alternative D

The entire potential ACEC (221,000 acres) would not be designated, resulting in less protections for R&I values than Alternative A. Withdrawals would be recommended for revocation for 67,000 acres (30 percent of the undesignated portion of the ACEC). 216,000 undesignated acres would be available for locatable mineral entry and 46,000 acres open to fluid mineral leasing, and the entire undesignated potential ACEC would be open to mineral material sales. This would result in the same impacts as those described under Alternative C1, except no acres would be subject to controlled surface use or NSO stipulations.

Additionally, 157,000 acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative D would result in fewer impacts on R&I values, as more acres would be open to commercial timber development under Alternative A.

Alternative E (Proposed Plan)

Under Alternative E, 221,000 acres (100 percent of the entire potential ACEC) of the potential ACEC would be designated to protect crucial chum salmon summer spawning habitat. Special management prescriptions as described in **Appendix J** would be applied to stream order-based 100-year floodplain buffers watershed-wide (55,000 acres) to protect R&I values. Within the stream order-based 100-year floodplain buffer areas, the following special management applies: closed to mineral materials disposal, ROW avoidance, NSO for fluid mineral leasing and development, and for all BLM-authorized camps and support facilities would not be located within the confines of the ACEC, including cabins and tent frames, except for scientific purposes.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

The ANVLAP analysis determined that potential negative effects to local water quality and aquatic resources are likely to be minimal if future land use practices remain similar in scope and scale to historic levels. Based on this analysis it is anticipated that the partial revocation would result in minimal impacts to fish and fish habitat, including the crucial salmon spawning habitat R&I values for the Hogatza River ACEC under Alternative E.

For areas open to locatable minerals, as per the mining regulations, ACEC designation requires development of a Plan of Operations, subject to the NEPA process, for any exploration activities, thus providing more protection of R&I values for exploration activities within the ACEC relative to lands outside the ACEC where this regulatory requirement does not apply.

T.13 HUSLIA RIVER TRIBUTARIES

Alternative A (No Action)

Under Alternative A, the entire potential ACEC (73,000 acres) is not designated. However, any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help protect the R&I values. For example, under this alternative, all 73,000 undesignated acres would continue to be retained under withdrawals and be withdrawn from locatable mineral entry and fluid mineral leasing. These actions would prohibit surface-disturbing activities associated with minerals development and protect the R&I values. Additionally, limiting OHV travel on all 73,000 acres to existing routes would reduce impacts on R&I values from motorized and mechanized travel by limiting surface disturbance and vegetation destruction.

However, the 73,000 acres would continue to be open to mineral material sales and commercial timber development, which could affect R&I values by allowing for surface disturbing activities.

Alternative B

The entire potential ACEC (73,000 acres) would be designated to protect Chinook, chum, coho, and sockeye salmon and whitefish spawning habitat, resulting in the greatest protection for R&I values of all the alternatives. The management prescriptions identified in **Appendix J** would help protect R&I values.

Alternative C1

The entire potential ACEC (73,000 acres) would not be designated. Withdrawals would be recommended for revocation for these 73,000 undesignated acres. These acres would be available for locatable mineral entry and fluid mineral leasing, and they would be open to mineral material sales. Of the acres open to locatable mineral entry, 59,000 acres would be State-selected, segregated from mineral entry. Of the acres open to locatable mineral entry, 2,000 acres would be top-filed. Compared with Alternative A, Alternative C1 would cause more adverse impacts on R&I values, as Alternative A retains these acres under a withdrawal from locatable mineral entry. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of soils and fish habitat, erosion that could degrade aquatic habitats, and contamination of surface water from wastewater spills and runoff. However, 49,000 acres (67 percent of the undesignated area) would be subject to controlled surface use stipulations, which would reduce impacts on R&I values by limiting surface disturbance.

There would be 61,000 undesignated acres (84 percent of the undesignated area) open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative C1 would result in fewer impacts on R&I values. This is because more acres would be open to commercial timber development under Alternative A (73,000). There would be 12,000 undesignated acres (16 percent of the undesignated area) that would overlap with areas closed to commercial timber development. Making these acres unavailable for commercial timber development would help protect R&I values by precluding timber infrastructure development, surface disturbance, and riparian habitat damage.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (73,000 acres) would not be designated. Withdrawals would be recommended for revocation for these 73,000 undesignated acres. These acres would be available for locatable mineral entry and fluid mineral leasing, and they would be open to mineral material sales. This would result in the same type of impacts as those described under Alternative C1, except fewer acres would be subject to controlled surface use stipulations (49,000) under Alternative C2, resulting in potentially greater impacts on R&I values from surface disturbance. Of the acres open to locatable mineral entry, 59,000 acres would be State-selected, segregated from mineral entry. Of the acres open to locatable mineral entry, 2,000 acres would be top-filed.

Furthermore, 61,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative C2 would result in fewer impacts on R&I values, as less acreage would be open to commercial timber development under Alternative A.

Alternative D

The entire potential ACEC (73,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C1. Additionally, there would be no acres for fluid mineral leasing subject to controlled surface use stipulations.

61,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative D would result in fewer impacts on R&I values, as more acres would be open to commercial timber development under Alternative A.

Alternative E (Proposed Plan)

Under Alternative E, 73,000 (100 percent of the potential ACEC) would be designated to protect Chinook, chum, coho, and sockeye salmon and whitefish spawning habitat. Special management prescriptions as described in **Appendix J** would be applied to stream order-based 100-year floodplain buffers watershed-wide to protect R&I values. Within the stream order-based 100-year floodplain buffer areas (9,000 acres), the following special management applies: closed to mineral materials disposal, ROW avoidance, NSO for fluid mineral leasing and development, and for all BLM-authorized camps and support facilities would not be located within the confines of the ACEC, including cabins and tent frames, except for scientific purposes.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

The ANVLAP analysis that potential negative effects to local water quality and aquatic resources are likely to be minimal if future land use practices remain similar in scope and scale to historic levels. Based on this analysis it is anticipated that the partial revocation would result in minimal impacts to fish and fish habitat under Alternative E, including the Chinook, chum, coho, and sockeye salmon and whitefish spawning habitat R&I values for this ACEC.

For areas open to locatable minerals, as per the mining regulations, ACEC designation requires development of a Plan of Operations, subject to the NEPA process, for any exploration activities, thus providing more protection of R&I values for exploration activities within the ACEC relative to lands outside the ACEC where this regulatory requirement does not apply.

Areas within 50 feet of a water body would be closed to commercial timber development, which could prevent degradation of R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative E would result in fewer impacts on R&I values. This is because no acres would be closed to commercial timber development under Alternative A. Making these acres unavailable for commercial timber development would help protect R&I values by precluding timber infrastructure development, surface disturbance, and riparian habitat damage.

T.14 INDIAN RIVER

Alternative A (No Action)

Under this alternative, 155,000 acres (89 percent) of this potential ACEC would continue to be designated to protect crucial salmon spawning habitat. The management prescriptions identified in **Appendix J** would help protect R&I values.

Currently, there are no threats to the R&I values in this area. However, any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help protect the R&I values.

The remaining 20,000 undesignated acres (11 percent of the total potential ACEC) would continue to be available for locatable mineral entry and open to mineral material sales, and 18,000 undesignated acres (90 percent of the undesignated ACEC) would be open to fluid mineral leasing. Of the acres open for locatable mineral entry, 10,000 acres would be State-selected, segregated from mineral entry. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of soils and fish habitat, erosion that could degrade aquatic habitats, and contamination of surface water from wastewater spills and runoff.

Alternative B

Under this alternative, 100 percent of the entire potential ACEC (173,000 acres) would be designated to protect crucial Chinook and chum salmon summer spawning habitat. This would result in greater protections for R&I values than Alternative A, as 18,000 more acres would be designated. The management prescriptions identified in **Appendix J** would help protect R&I values within this designated portion of the ACEC.

However, the 2,000 undesignated acres would be available for locatable mineral entry and open to mineral material sales, and 2,000 undesignated acres would be withdrawn from fluid mineral leasing. This would result in the same type of impacts as those described under Alternative A, but on a smaller area (18,000 acres less). These 2,000 acres would be managed according to VRM Class IV objectives, which would allow modifications to the landscape that have noticeable or dominant visual contrasts. This may result in greater impacts on R&I values than under Alternative A, which manages the undesignated area as VRM unclassified.

Additionally, these 2,000 acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative B would result in fewer impacts on R&I values, as 19,000 acres would be open to commercial timber development under Alternative A.

Alternative C1

The entire potential ACEC (173,000 acres) would not be designated, resulting in less protections for R&I values than Alternative A. Of the undesignated area, 18,000 acres (10 percent) would overlap with areas closed to commercial timber development. Making these acres unavailable for commercial timber development would preclude timber infrastructure development, surface disturbance, vegetation removal,

weed spread, and riparian habitat damage. This would result in greater protection for R&I values than Alternative A, which does not overlap with any areas closed to commercial timber development.

Withdrawals would be recommended for revocation for 31,000 acres (18 percent) of the undesignated area. Additionally, all of the 175,000 undesignated acres would be available for locatable mineral entry and 31,000 undesignated acres open to fluid mineral leasing, and 173,000 undesignated acres would be open to mineral material sales. This would result in the same type of impacts as those described under Alternative A, except over 157,000 more acres. Of the acres available for locatable mineral entry, 4,000 acres would be top-filed. However, 45,000 acres would be subject to controlled surface use stipulations for fluid mineral leasing, which could help protect R&I values by limiting surface disturbance.

There would be 157,000 acres (90 percent of the undesignated area) open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative C1 would result in greater impacts on R&I values, as fewer acres would be open to commercial timber development under Alternative A.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (175,000 acres) would not be designated, resulting in less protections for R&I values than Alternative A.

All of the 175,000 undesignated acres would be available for locatable mineral entry and open to mineral material sales, and 30,000 undesignated acres would be open to fluid mineral leasing. This would result in the same type of impacts as those described under Alternative A (except over 155,000 acres). Of the acres open to locatable mineral entry, 21,000 acres would be state-selected, segregated from mineral entry. Of the acres open to locatable mineral entry, 4,000 acres would be top-filed.

Additionally, 157,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative C2 would result in greater impacts on R&I values, as fewer acres would be open to commercial timber development under Alternative A.

Alternative D

The entire potential ACEC (175,000 acres) would not be designated, resulting in less protections for R&I values than Alternative A. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative C1, except that 18,000 acres overlap with areas closed to commercial timber development. Additionally, there would be no acres for fluid mineral leasing subject to controlled surface use stipulations.

Alternative E (Proposed Plan)

Under Alternative E, 173,000 (100 percent of the potential ACEC) would be designated to protect crucial Chinook and chum salmon summer spawning habitat. Special management prescriptions as described in **Appendix J** would be applied to stream order-based 100-year floodplain buffers watershed-wide (17,000 acres) to protect R&I values. Within the stream order-based 100-year floodplain buffer areas, the following special management applies: closed to mineral materials disposal, ROW avoidance, NSO for fluid mineral leasing and development, and for all BLM-authorized camps and support facilities would not be located within the confines of the ACEC, including cabins and tent frames, except for scientific purposes.

For areas open to locatable minerals, as per the mining regulations, ACEC designation requires development of a Plan of Operations, subject to the NEPA process, for any exploration activities, thus providing more protection of R&I values for exploration activities within the ACEC relative to lands outside the ACEC where this regulatory requirement does not apply.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

The ANVLAP analysis determined that potential negative effects to local water quality and aquatic resources are likely to be minimal if future land use practices remain similar in scope and scale to historic levels. Based on this analysis it is anticipated that the partial revocation would result in minimal impacts to fish and fish habitat under Alternative E, including the crucial salmon spawning habitat R&I values for the Indian River ACEC, including the R&I values of crucial Chinook and chum salmon summer spawning habitat.

Areas within 50 feet of a water body would be closed to commercial timber development, which could prevent degradation of R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative E would result in fewer impacts on R&I values. This is because no acres would be closed to commercial timber development under Alternative A. Making these acres unavailable for commercial timber development would help protect R&I values by precluding timber infrastructure development, surface disturbance, and riparian habitat damage.

T.15 ISHTALITNA CREEK HOT SPRINGS RNA

Alternative A (No Action)

The entire potential ACEC/RNA (1,000 acres) would continue to be designated to protect the low-gradient hot springs system and unique assemblages of plants associated with the system. The management prescriptions identified in **Appendix J** would protect R&I values. The ACEC and surrounding lands (160 acres) closed to mineral entry under PLO 399, which withdrew all hot springs in Alaska from entry and all forms of appropriation.

Alternative B

The entire potential ACEC/RNA (1,000 acres) would be designated to protect the low-gradient hot springs systems and associated vegetation and soils. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative A.

Alternative C1

The entire potential ACEC/RNA (1,000 acres) would not be designated, resulting in more impacts on R&I values than under Alternative A. The hot springs are currently threatened by potential access by OHVs and other surface-disturbing activities, which could adversely affect the hot springs due to increased erosion, sedimentation, and runoff. Consequently, any direct or indirect protections from management actions for other resources within the undesignated potential ACEC could help preserve the soil and vegetation R&I values. For example, all 1,000 undesignated acres overlap with ROW exclusion areas. Managing these acres as ROW exclusion makes them unavailable for ROW locations, thereby protecting R&I values by eliminating surface disturbance associated with development.

The 1,000 undesignated acres would be closed to mineral material sales and fluid mineral leasing. This could help protect R&I values by precluding surface-disturbing activities, infrastructure development, vegetation

removal, and weed spread. However, 1,000 acres would be open to locatable mineral entry. These acres would be state-selected, segregated from mineral entry. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of soils and fish habitat; erosion that could degrade aquatic habitats; and contamination of surface water from wastewater spills and runoff.

These 1,000 undesignated acres also would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils. Compared with Alternative A, Alternative C1 would result in greater impacts on R&I values. This is because no acres would be open to commercial timber development under Alternative A.

The 1,000 undesignated acres overlap with lands with wilderness characteristics that are managed to emphasize other resource values and multiple uses while applying management restrictions to reduce impacts on wilderness characteristics. This would result in impacts as described under *Accomplishment Creek – Alternative C1*.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC/RNA (1,000 acres) would not be designated, resulting in more impacts on R&I values than under Alternative A. These 1,000 acres would be available for locatable mineral entry. As a result, R&I values could be degraded due to impacts from infrastructure and surface disturbance associated with mineral development, including destruction of soils and vegetation and contamination of surface water from wastewater spills and runoff. These acres would be State-selected, segregated from mineral entry. However, these 1,000 acres would be closed to mineral material sales and withdrawn from fluid mineral leasing, which could help protect R&I values by precluding: surface-disturbing activities, infrastructure development, vegetation removal, and weed spread.

These 1,000 undesignated acres, however, would be open to commercial timber development. This would result in the same type of impacts as those described under Alternative C1.

Alternative D

The entire potential ACEC/RNA (1,000 acres) would not be designated, resulting in more impacts on R&I values than under Alternative A. These 1,000 acres would be available for locatable mineral entry and would be open to mineral material sales. As a result, R&I values could be degraded due to impacts from infrastructure and surface disturbance associated with mineral development, including destruction of soils and vegetation and contamination of surface water from wastewater spills and runoff.

Additionally, these 1,000 acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils. Compared with Alternative A, Alternative D would result in greater impacts on R&I values. This is because no acres would be open to commercial timber development under Alternative A.

Alternative E (Proposed Plan)

The entire potential ACEC/RNA (1,000 acres) would not be designated; however, impacts would be similar to Alternative A because of management for other resources. These 1,000 acres would continue to be segregated under PLOs and available for locatable mineral entry. The ACEC and surrounding lands (160 acres) closed to mineral entry under PLO 399 of August 20, 1947, which withdrew all hot springs in Alaska from entry and all forms of appropriation.

The potential ACEC also would be withdrawn from fluid minerals leasing. While the area would be available for mineral material sales, this activity is unlikely to occur or could be relocated to avoid the area.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

None of Ishtalitna Creek Hot Springs RNA/ACEC is currently ANCSA selected, although there are ANCSA selections about 3 miles north of this ACEC. Due to this proximity of the RNA/ACEC to the ANCSA selected lands, it is more likely that these lands would be selected by Native Vietnam-era veterans under Alternative E. The ANVLAP analysis determined that potential negative effects to local water quality and aquatic resources (like the R&I value for hot springs in this potential ACEC) are likely to be minimal if future land use practices remain similar in scope and scale to historic levels. Based on this analysis it is anticipated that the partial revocation would result in minimal impacts to fish and fish habitat under Alternative E.

These 1,000 acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils. Impacts would be the same as under Alternative A, which also is not closed to commercial timber harvest.

Special management attention is not required to protect the potential Ishtalitna Creek Hot Springs RNA/ACEC because standard or routine management prescriptions are sufficient to protect the resource or value from risks or threats of damage/degradation. Routine management measures to protect hot springs would protect the R&I values. In hot springs, Alternative E, the BLM would prohibit the following within 160-acre area surrounding hot springs: mineral materials disposal; nonenergy solid mineral leasing and development, surface-disturbing activities, surface occupancy for fluid minerals, new ROWs in the hot spring and new ROWs would be avoided for the 160-acre area surrounding the hot spring, and limit travel to existing trails. These allocations would protect the R&I values of the ACEC/RNA.

T.16 JIM RIVER

Alternative A (No Action)

Under this alternative, 67 percent (203,000 acres) of the entire potential ACEC (304,000 acres) would be designated to protect crucial: salmon spawning habitat, recreational fisheries, cultural resources, and high scenic values. The management prescriptions identified in **Appendix J** would protect R&I values.

The proximity of the Jim River/Prospect Creek watershed to the Dalton Highway continues to attract economically feasible roads and mining development opportunities, which threaten aquatic habitat and fisheries in this area. Additionally, several prehistoric sites in this potential ACEC are likely to meet the criteria for inclusion on the National Register of Historic Places. Lastly, there are approximately 30 Dall sheep located south of Brookes Range. Therefore, any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help protect the R&I values. For example, of the 101,000 acres of the undesignated area, all would be retained under withdrawals and closed to fluid mineral leasing, while 43,000 acres (43 percent of the undesignated area) would be withdrawn from locatable mineral entry. This would prohibit surface-disturbing activities associated with minerals development and protect the R&I values.

Additionally, of this undesignated area, 11,000 acres (11 percent) would continue to overlap with rivers identified as eligible or suitable for inclusion in the NWSRS. These acres of the ACEC that overlap or are

adjacent to these eligible or suitable WSRs, would receive some indirect protection from WSR management. This is because the BLM would take no action that would adversely affect the free-flowing condition, ORVs, and adequate water quality to support ORVs or tentative classification of the eligible or suitable segments.

Limiting OHV travel to existing routes on all 101,000 undesignated acres would reduce impacts on R&I values from motorized and mechanized travel by limiting surface disturbance, wildlife disturbance, and habitat fragmentation.

However, 59,000 acres (58 percent of the undesignated area) would continue to be available for locatable mineral entry, while all 101,000 undesignated acres would continue to be open to mineral material sales. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development. These impacts include destruction of soils and fish habitat; degradation of cultural values and resources; erosion that could degrade aquatic habitats; destruction of wildlife habitat; disturbance to wildlife; and contamination of surface water from wastewater spills and runoff.

The entire undesignated area would continue to be managed according to VRM Class III or Class IV objectives, which allow modifications to the landscape that have noticeable or dominant visual contrasts. This could impair R&I values in this area by allowing surface-disturbing activities.

Alternative B

Almost the entire potential ACEC would be designated (99 percent, or 303,000 acres) to protect Dall sheep, crucial Chinook and chum salmon spawning habitat and overwintering habitat for: resident fish, soils, water, cultural resources, and scenic values. This would result in greater protection of R&I values than Alternative A, as 100,000 more acres would be designated. The management prescriptions identified in **Appendix J** would protect R&I values within this designated portion of the ACEC.

The remaining 1,000 undesignated acres (less than 1 percent of the entire potential ACEC) of the Jim River ACEC overlap with ROW avoidance areas. R&I values could be degraded if development requiring a ROW permit were to occur in the area; however, prohibiting commercial energy development and allowing only minor land use authorizations would continue to help protect ACEC values by minimizing or eliminating surface disturbance associated with development. Compared with Alternative A, which does not overlap with any ROW avoidance areas, Alternative B would result in greater protections for R&I values.

However, these 1,000 undesignated acres would be available for locatable mineral entry and fluid mineral leasing, resulting in the same type of impacts as those described under Alternative A, but over a smaller area (58,000 fewer acres). Managing these 1,000 acres as VRM Class II would result in greater protection for R&I values from most impacts associated with management activities with large-scale, ground-disturbing activities. However, it would allow activities that modify the landscape, but have low visual contrast and do not attract attention.

Additionally, these 1,000 acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including: destruction of soils and fish habitat; degradation of cultural values and resources; erosion that could degrade aquatic habitats; destruction of wildlife habitat; and disturbance to wildlife. Compared with Alternative A, Alternative B would result in greater impacts on R&I values, as no acres would be open to commercial timber development under Alternative A.

Alternative C1

Under this alternative, 10 percent of the entire potential ACEC (30,000 acres) would be designated to protect Chinook and chum salmon spawning habitat and overwintering habitat for resident fish, soils, water, cultural resources, and scenic values, resulting in less protections for R&I values than Alternative A. The management prescriptions identified in **Appendix J** would protect R&I values.

Of the remaining 274,000 acres (90 percent) of the potential ACEC, withdrawals would be recommended for revocation for 240,000 acres (88 percent of the undesignated area), while 34,000 acres (12 percent of the undesignated area) would remain in lands withdrawn by PLO 5150. Additionally, 239,000 acres (89 percent of the undesignated area) would be available for locatable mineral entry (180,000 more acres than Alternative A) and fluid mineral leasing (1,000 acres would be available for fluid mineral leasing under Alternative A). There would be 273,000 acres (99 percent of the undesignated area) open to mineral material sales (171,000 more acres than Alternative A), resulting in the same type of impacts as those described under Alternative A. Of the acres open for locatable mineral entry, 58,000 would be State-selected, segregated from mineral entry. Of the acres open to locatable mineral entry, 91,000 would be top-filed.

However, 34,000 acres (11 percent of the undesignated area) would be withdrawn from locatable mineral entry (9,000 acres less than Alternative A) and fluid mineral leasing (68,000 acres less than Alternative A). This would prohibit surface-disturbing activities associated with minerals development and protect the R&I values. Additionally, 218,000 acres (72 percent of the undesignated area) would be subject to controlled surface use stipulations for fluid mineral leasing, while 130,000 acres (43 percent of the undesignated area) would be subject to NSO stipulations. These would reduce impacts on R&I values by limiting surface disturbance.

Under this alternative, 263,000 undesignated acres would be open to commercial timber development, resulting in the same type of impacts as those described under Alternative B. Compared with Alternative A, Alternative C1 would result in greater impacts on R&I values. This is because fewer acres would be open to commercial timber development under Alternative A.

Managing 254,000 acres (93 percent of the undesignated area) as VRM Class II would protect R&I values from most impacts associated with management activities with large-scale, ground-disturbing activities. This would result in greater protection for R&I values than under Alternative A. It would, however, allow activities that modify the landscape, but have low visual contrast and do not attract attention. This could diminish R&I values by allowing surface-disturbing activities. Additionally, 20,000 acres (7 percent of the undesignated area) would be managed according to VRM Class III objectives. This would result in the same impacts as those described under Alternative A, except over a smaller area (30,000 fewer acres).

Limiting OHV travel to existing routes on all 274,000 undesignated acres would result in the same impacts as those described under Alternative A, except over a larger area (173,000 acres more).

Within the undesignated acres, 400 acres overlap with the Dall Sheep study area (DSSA). This overlap would indirectly protect R&I values because effects minimization and mitigation requirements, namely BMPs, would be implemented in these areas to protect Dall sheep habitat. Additionally, other restrictions, such as travel management restrictions and recreation permit limitations, would be enforced in the DSSA, protecting the R&I values by limiting disturbance. However, allowing some development for recreational purposes and managing for ROWs could potentially degrade R&I values by causing some surface disturbance and affecting vegetation and wildlife habitat.

Lastly, allowing for fluid mineral, locatable mineral, and mineral materials entry and development in the DSSA could degrade R&I values due to surface disturbance and infrastructure development. However, applying NSO stipulations could help mitigate impacts.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (304,000 acres) would not be designated.

There would be 42,000 acres (14 percent of the undesignated area) that would overlap with utility corridors. Construction within utility corridors could degrade R&I values due to impacts from surface disturbance and infrastructure associated with this development, including destruction of soils and fish habitat; erosion that could degrade aquatic habitats; and contamination of surface water from wastewater spills and runoff. Compared with Alternative A, which does not overlap with any utility corridors, Alternative D would result in greater degradation to R&I values from this management action.

PLOs would be recommended for revocation for the entire undesignated area. Also, all undesignated acres would be available for locatable mineral entry and fluid mineral leasing. They also would be open to mineral material sales, resulting in the same type of impacts as those described under Alternative A, except over a larger area (244,000 acres more for locatable mineral entry and 303,000 acres more for fluid mineral leasing). This would result in greater impacts on R&I values. Of the acres open to locatable mineral entry, 65,000 acres would be State-selected. Of the acres open to locatable mineral entry, 145,000 acres would be top-filed.

The entire undesignated area would continue to be managed according to VRM Class III or VRM Class IV objectives, resulting in the same impacts as those described under Alternative A, except over a larger area (202,000 acres more).

Additionally, 266,000 acres that are undesignated would be open to commercial timber development. This would result in the same type of impacts as those described under Alternative C1, but over a larger area.

Alternative D

The entire potential ACEC (304,000 acres) would not be designated. All withdrawals, including PLOs, would be recommended for revocation for the entire undesignated area. All undesignated acres would be available for locatable mineral entry and fluid mineral leasing, and they would be open to mineral material sales. This would result in the same type of impacts as those described under Alternative A, except over a larger area (245,000 acres more for locatable mineral entry; 304,000 acres more for fluid mineral leasing), resulting in greater impacts on R&I values.

The entire undesignated area would continue to be managed according to VRM Class III or VRM Class IV objectives, resulting in the same impacts as those described under Alternative C2.

There would be 42,000 acres (14 percent of the undesignated area) that would overlap with utility corridors, resulting in the same type of impacts as those described under Alternative C2.

Under this alternative, 266,000 undesignated acres would be open to commercial timber development, resulting in the same type of impacts as those described under Alternative C1. Compared with Alternative A, Alternative D would result in greater impacts on R&I values. This is because fewer acres would be open to commercial timber development under Alternative A.

Limiting OHV travel to existing routes on 304,000 undesignated acres would result in the same types of impacts as those described under Alternative A, except over a larger area (203,000 acres more).

Alternative E (Proposed Plan)

Under this alternative, the entire potential ACEC would be designated (100 percent, or 303,000 acres) to protect Dall sheep, crucial Chinook and chum salmon spawning habitat and overwintering habitat for resident fish, soils, water, cultural resources, and scenic values. resulting in similar protections for R&I values as Alternative B. Special management prescriptions as described in **Appendix J** would be applied to stream order-based 100-year floodplain buffers watershed-wide (30,000 acres) to protect R&I values. Within the stream order-based 100-year floodplain buffer areas, the following special management applies: closed to mineral materials disposal, ROW avoidance, NSO for fluid mineral leasing and development, and for all BLM-authorized camps and support facilities would not be located within the confines of the ACEC, including cabins and tent frames, except for scientific purposes.

For areas open to locatable minerals, as per the mining regulations, ACEC designation requires development of a Plan of Operations, subject to the NEPA process, for any exploration activities, thus providing more protection of R&I values for exploration activities within the ACEC relative to lands outside the ACEC where this regulatory requirement does not apply.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing. Based on the ANVLAP EA analysis, it is anticipated that this partial revocation would result in minimal impacts to fish and fish habitat under Alternative E, including the crucial Chinook and chum salmon spawning habitat and overwintering habitat for resident fish R&I values for this ACEC.

Areas within 50 feet of a water body would be closed to commercial timber development, which could prevent degradation of R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative E would result in fewer impacts on R&I values. This is because no acres would be closed to commercial timber development under Alternative A. Making these acres unavailable for commercial timber development would help protect R&I values by precluding timber infrastructure development, surface disturbance, and riparian habitat damage.

T.17 KANUTI HOT SPRINGS

Alternative A (No Action)

Under this alternative, 25 percent of the entire potential ACEC acres would be designated (40 acres) to protect the hot springs system. The management prescriptions identified in **Appendix J** would protect R&I values.

The ACEC and surrounding lands (160 acres) closed to mineral entry under PLO 399 of August 20, 1947, which withdrew all hot springs in Alaska from entry and all forms of appropriation.

Alternative B

Under this alternative, the entire potential ACEC (160 acres) would be designated to protect the hot springs system, resulting in greater protection for R&I values than Alternative A.

Alternative C1

Under this alternative, the entire potential ACEC (160 acres) would not be designated. This would result in greater impacts than Alternative A, which would designate 40 acres of the ACEC. All impacts would be equal to or less than 160 acres. Under this alternative, a portion of the entire potential ACEC would be open to timber development, which could degrade R&I values due to surface disturbance, including destruction of soils. Additionally, withdrawals would be recommended for revocation on a portion of the total 160 acres,

and these acres would be open to locatable mineral entry and mineral material development. Consequently, R&I values could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of soils and contamination of surface water from wastewater spills and runoff. A portion of the total 160 acres would be withdrawn from locatable mineral entry, which could protect R&I values by limiting surface disturbance on these acres.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

Under this alternative, the entire potential ACEC (160 acres) would not be designated. Impacts would be the same as those described under Alternative C1.

Alternative D

Under this alternative, the entire potential ACEC (160 acres) would not be designated. Impacts would be the same as those described under Alternative C1.

Alternative E (Proposed Plan)

The entire potential ACEC/RNA (160 acres) would not be designated. The ACEC and surrounding lands (160 acres) are closed to mineral entry under PLO 399, which withdrew all hot springs in Alaska from entry and all forms of appropriation. The existing withdrawals would remain in place on the 160 acres. The entire area is withdrawn from fluid minerals, which could protect R&I values by limiting surface disturbance on these acres.

Under this alternative, a portion of the potential ACEC would be open to timber development, which could degrade R&I values due to surface disturbance, including destruction of soils. However, hot springs are unlikely to be forested to the extent that commercial timber development would take place.

Since the land is withdrawn by PLO 399, the revocation in part of the ANCSA 17(d)(1) withdrawals would not result in any allotments within the potential ACEC/RNA.

Special management attention is not required to protect the potential Kanuti Hot Springs ACEC because standard or routine management prescriptions are sufficient to protect the resource or value from risks or threats of damage/degradation. In hot springs, Alternative E, the BLM would prohibit the following within 160-acre area surrounding hot springs: mineral materials disposal; nonenergy solid mineral leasing and development, surface-disturbing activities, surface occupancy for fluid minerals, new ROWs in the hot spring and new ROWs would be avoided for the 160-acre area surrounding the hot spring, and limit travel to existing trails. These allocations would protect the R&I values of the ACEC/RNA.

T.18 Klikhtentotzna Creek

Alternative A (No Action)

The entire potential ACEC (108,000 acres) would not be designated. Currently, there are no threats to the R&I values. However, any direct or indirect protections from management actions for other resources within the undesignated potential ACEC would help protect the R&I values.

The entire undesignated potential ACEC (108,000 acres) would be withdrawn from locatable mineral entry and 107,000 acres withdrawn from fluid mineral leasing; however, 108,000 acres would be open to mineral material sales. Consequently, the R&I values could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development. These impacts include destruction of soils and fish habitat; erosion that could degrade aquatic habitats; and contamination of surface water from wastewater spills and runoff.

Alternative B

The entire potential ACEC (108,000 acres) would be designated to protect crucial chum salmon summer spawning habitat. The management prescriptions identified in **Appendix J** would protect R&I values.

Alternative C1

The entire potential ACEC (108,000 acres) would not be designated. This entire area would be available for locatable mineral entry and would be open to mineral material sales. This would result in the same impacts as those described under Alternative A.

There would be 16,000 acres (15 percent of the undesignated potential ACEC) that would overlap with areas closed to commercial timber development. This management action would offer protection for R&I values by precluding timber infrastructure development, surface disturbance, and riparian habitat damage. However, 92,000 acres (85 percent of the undesignated area) would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative C1 would result in fewer impacts on R&I values. This is because more acres would be open to commercial timber development under Alternative A.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (108,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative C1.

Alternative D

The entire potential ACEC (108,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C1.

Alternative E (Proposed Plan)

Under Alternative E, 108,000 acres (100 percent of the potential ACEC) would be designated to protect crucial chum salmon summer spawning habitat. Special management prescriptions as described in **Appendix J** would be applied to stream order-based 100-year floodplain buffers watershed-wide (18,000 acres) to protect R&I values. Within the stream order-based 100-year floodplain buffer areas, the following special management applies: closed to mineral materials disposal, ROW avoidance, NSO for fluid mineral leasing and development, and for all BLM-authorized camps and support facilities would not be located within the confines of the ACEC, including cabins and tent frames, except for scientific purposes.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

Based on the ANVLAP EA analysis, it is anticipated that this partial revocation would result in minimal impacts to fish and fish habitat under Alternative E, including crucial chum salmon summer spawning habitat R&I values for this ACEC.

For areas open to locatable minerals, as per the mining regulations, ACEC designation requires development of a Plan of Operations, subject to the NEPA process, for any exploration activities, thus providing more protection of R&I values for exploration activities within the ACEC relative to lands outside the ACEC where this regulatory requirement does not apply.

Areas within 50 feet of a water body would be closed to commercial timber development, which could prevent degradation of R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative E would result in fewer impacts on R&I values. This is because no acres would be closed to commercial timber development under Alternative A. Making these acres unavailable for commercial timber development would help protect R&I values by precluding timber infrastructure development, surface disturbance, and riparian habitat damage.

T.19 LAKE TODATONTEN PINGOS RNA

Alternative A (No Action)

The entire potential ACEC/RNA (1,000 acres) would continue to be designated to protect open system pingos. The management prescriptions identified in **Appendix J** would protect R&I values.

Alternative B

The entire potential ACEC/RNA (1,000 acres) would be designated to protect the soil, hydrologic processes, and vegetation associated with the pingos system. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative A.

Alternative C1

The entire potential ACEC/RNA (1,000 acres) would not be designated. The soil, water, and vegetation R&I values are all threatened due to warming associated with climate change, which could alter this area and, in some cases, eliminate pingos due to thawing permafrost. Consequently, any direct or indirect protection from management actions for other resources within the undesignated potential ACEC/RNA would help prevent further threat to these R&I values.

All 1,000 undesignated acres would be available for locatable mineral entry and would be open to mineral material sales. This could degrade R&I values due to impacts from infrastructure and surface disturbance associated with mineral development, including destruction of soils and vegetation and contamination of surface water from wastewater spills and runoff. All of these 1,000 acres open to locatable mineral entry would be State-selected, segregated from mineral entry. Additionally, these 1,000 acres would be managed according to VRM Class IV objectives, which could also affect R&I values by allowing surface-disturbing activities.

Additionally, these 1,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and vegetation. Compared with Alternative A, Alternative C1 would result in greater impacts on R&I values, as no acres would be open to commercial timber development under Alternative A.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC/RNA (1,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C1.

Alternative D

The entire potential ACEC/RNA (1,000 acres) would not be designated, resulting in more impacts on R&I values than under Alternative A. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C1.

Alternative E (Proposed Plan)

The entire potential ACEC/RNA (1,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C1.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

The ANVLAP analysis determined that potential negative effects to features like pingos are likely to be minimal if future land use practices remain similar in scope and scale to historic levels. Based on this analysis it is anticipated that the partial revocation would result in minimal impacts to pingos under Alternative E.

Special management attention is not required to protect the potential Lake Todatonten Pingos RNA/ACEC because standard or routine management prescriptions are sufficient to protect the resource or value from risks or threats of damage/degradation. Routine management measures to protect pingos, especially ROW avoidance, would protect the R&I values.

T.20 McQUESTEN CREEK RNA

Alternative A (No Action)

The entire potential ACEC/RNA (4,000 acres) would continue to be designated to protect the low-gradient hot springs system and unique assemblages of plants associated with the system. The management prescriptions identified in **Appendix J** would protect R&I values.

Alternative B

The entire potential ACEC/RNA (4,000 acres) would be designated to protect the low-gradient hot springs systems and associated vegetation and soils. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative A.

Alternative C1

The entire potential ACEC/RNA (4,000 acres) would not be designated, resulting in more impacts on R&I values than under Alternative A. Currently, there are no threats to the R&I values. Any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help protect the R&I values.

These 4,000 undesignated acres would be available for locatable mineral entry and they would be open to mineral material sales. These 4,000 acres open for locatable mineral entry would be state-selected, segregated from mineral entry. As a result, R&I values could be degraded due to impacts from infrastructure and surface disturbance associated with mineral development, including destruction of soils and vegetation and contamination of surface water from wastewater spills and runoff.

Additionally, 3,000 undesignated acres (75 percent of the potential ACEC area) would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and vegetation. Compared with Alternative A, Alternative C1 would result in greater impacts on R&I values, as no acres would be open to commercial timber development under Alternative A.

The 4,000 undesignated acres also overlap with lands with wilderness characteristics that are managed to emphasize other resource values and multiple uses while applying management restrictions to reduce impacts

on wilderness characteristics. The impacts would be as described under *Accomplishment Creek – Alternative C1*.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC/RNA (4,000 acres) would not be designated, resulting in more impacts on R&I values than under Alternative A. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative C1, except there would be no overlap with any lands with wilderness characteristics.

Alternative D

The entire potential ACEC/RNA (4,000 acres) would not be designated, resulting in more impacts on R&I values than under Alternative A. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C2.

Alternative E (Proposed Plan)

The entire potential ACEC/RNA (4,000 acres) would not be designated. McQuesten Creek RNA is within Tozitna ACEC, designated in Alternative E, and therefore designation of McQuesten Creek RNA is not needed to protect R&I values. McQuesten Creek RNA's R&I values are a low-gradient hot springs system and unique assemblages of plants associated with the system. In hot springs, Alternative E, the BLM would prohibit the following within 160-acre area surrounding hot springs: mineral materials disposal; nonenergy solid mineral leasing and development, surface-disturbing activities, surface occupancy for fluid minerals, new ROWs in the hot spring and new ROWs would be avoided for the 160-acre area surrounding the hot spring, and limit travel to existing trails. The Tozitna ACEC's R&I values are crucial salmon spawning habitat and Ray Mountains Herd (RMH) core habitat. Protections for the Tozitna ACEC (NSO for fluid minerals, closed to mineral materials development, and keeping BLM-authorized camps and support facilities within the confines of the ACEC, including cabins and tent frames out of the 100-year floodplain) would protect the R&I values of the McQuesten Creek RNA.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

The ANVLAP analysis determined that potential negative effects to local water quality and aquatic resources (like the R&I value for hot springs in this potential ACEC) and are likely to be minimal if future land use practices remain similar in scope and scale to historic levels. Based on this analysis it is anticipated that the partial revocation would result in minimal impacts to fish and fish habitat under Alternative E.

Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C2.

T.21 MENTANONTLI RIVER/LAKE TODATONTEN

Alternative A (No Action)

The entire potential ACEC (20,000 acres) would not be designated. Currently, there are no threats to the R&I values. Any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help protect the R&I values.

Of the undesignated area, 15,000 undesignated acres would continue to be available for locatable mineral entry and 20,000 undesignated acres open to material sales, and 3,000 acres would be open to fluid mineral

leasing. The 15,000 open acres for locatable mineral entry would be State-selected, segregated from mineral entry. As a result, the fish/riparian R&I value could be degraded due to impacts from infrastructure and surface disturbance associated with mineral development, including destruction of fish habitat, and erosion or contamination that could degrade the quality of aquatic habitats. Additionally, under this alternative, OHV travel is limited to existing routes for the entire potential ACEC area.

Alternative B

The entire potential ACEC (20,000 acres) would be designated as an ACEC to protect crucial feeding habitat for humpback whitefish and whitefish migration route, resulting in the greatest amount of protection for R&I values among all of the alternatives. The management prescriptions identified in **Appendix J** would protect ACEC values. Under this alternative, there is no summer OHV restriction.

Alternative C1

The entire potential ACEC (20,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative A. The exception is that the 20,000 undesignated acres would be managed according to VRM Class IV objectives, rather than VRM unclassified as under Alternative A. Consequently, compared with Alternative A, this management action could result in greater impacts on R&I values by allowing surface-disturbing activities.

19,000 undesignated acres would be open to locatable mineral entry, resulting in the same type of impacts as those described under Alternative A. Of the acres open for locatable mineral entry, 14,000 acres would be state-selected and segregated from mineral entry.

Additionally, these 20,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of fish habitat and erosion that could degrade the quality of aquatic habitats. Compared with Alternative A, Alternative C1 would result in greater impacts on R&I values, as no acres would be open to commercial timber development under Alternative A.

Impacts on R&I values from OHV management would be the same as those described under Alternative A.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (20,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C1.

Alternative D

The entire potential ACEC (20,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative A. Additionally, the 20,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of fish habitat and erosion that could degrade the quality of aquatic habitats.

Alternative E (Proposed Plan)

The entire potential ACEC (20,000 acres) would be designated as an ACEC to protect crucial feeding habitat for humpback whitefish and for the whitefish migration route, resulting in the greatest amount of protection for R&I values of the alternatives. Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

Based on the ANVLAP EA analysis, it is anticipated that this partial revocation would result in minimal impacts to fish and fish habitat under Alternative E, including crucial feeding habitat for humpback whitefish and for the whitefish migration route R&I values for this ACEC.

The management prescriptions identified in **Appendix J** would protect ACEC values.

T.22 MIDNIGHT DOME/KALHABUK

Alternative A (No Action)

Under Alternative A, the entire potential ACEC (10,000 acres) is not designated. Recreation and other human activities currently threaten the wildlife R&I value of this potential ACEC, as human disturbance can disrupt Dall sheep movement and use of the area. Therefore, any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help protect R&I values. For example, limiting OHV travel to existing routes on all 10,000 undesignated acres would reduce impacts on R&I values from motorized and mechanized travel by limiting: surface disturbance, vegetation destruction, wildlife disturbance, and habitat fragmentation.

All 10,000 acres would be encumbered by PLOs, and they would be withdrawn from fluid mineral leasing. However, 90 percent of the undesignated area (9,000 acres) would continue to be available for locatable mineral entry, and all undesignated acres would continue to be open to mineral material sales. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of soils and wildlife habitat, as well as wildlife disturbance. However, 1,000 acres (10 percent) of the undesignated area would continue to be withdrawn from locatable mineral entry, which would prohibit surface-disturbing activities associated with minerals development, helping to protect R&I values.

The entire undesignated area would continue to be managed according to VRM Class III or VRM Class IV objectives, which allow modifications to the landscape that have noticeable or dominant visual contrasts. This could impair R&I values in this area by allowing surface-disturbing activities.

Alternative B

The Midnight Dome/Kalhabuk ACEC would be designated (10,000 acres) to protect Dall sheep habitat and mineral lick protection zones resulting in greater protection for R&I values than under Alternative A. The management prescriptions identified in **Appendix J** would protect the R&I values.

Alternative C1

The entire potential ACEC (10,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative A, except that PLOs would be recommended for revocation for 9,000 acres of the entire potential ACEC undesignated area. These acres would be open to fluid mineral leasing, leaving 1,000 acres (10 percent) withdrawn from fluid mineral leasing. Compared with Alternative A, these management actions would result in greater impacts on R&I values. This is because all 10,000 acres would be withdrawn from fluid mineral leasing under Alternative A, and 9,000 acres would be open to locatable mineral entry (resulting in the same impacts as those described under Alternative A). Any selected lands in the area would prevent new mineral entry; however, those selections could be relinquished or rejected, and the lands would then be open to locatable minerals under those conditions.

Of the undesignated area, 8,000 acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and wildlife habitat, as well as wildlife

disturbance. Compared with Alternative A, Alternative C1 would result in fewer impacts on R&I values, as more acres would be open to commercial timber development under Alternative A.

Within the undesignated acres, 1,000 acres (10 percent) would continue to overlap with the DSSA, while 9,000 acres (90 percent) would overlap with Dall sheep movement corridors (DSMCs). This overlap would indirectly protect R&I values, as various effects minimization and mitigation requirements, including BMPs and disturbance limits for DSMCs, would be implemented to protect Dall sheep habitat. Additionally, various restrictions, such as travel management restrictions and recreation permit limitations, would be enforced, protecting R&I values by limiting disturbance to the area.

Allowing some development for recreational purposes and managing for ROWs could affect and degrade R&I values by allowing surface disturbance. For DSMCs, allowing some development for recreational purposes, communication towers, transmission lines and pipelines as well as ROW and corridor development, could degrade R&I values by allowing surface disturbance and infrastructure development.

Lastly, allowing for fluid mineral, locatable mineral, and mineral material entry and development in the DSSA could degrade R&I values due to surface disturbance and infrastructure development.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (10,000 acres) would not be designated. PLO 5150 would be recommended for revocation on these 10,000 acres. This would result in greater impacts on R&I values than Alternative A, which retains all these acres under the PLO. Furthermore, these acres would be available for locatable mineral entry and top-filed, and they would be open to mineral material sales. This would result in the same type of impacts as those described under Alternative A, but on 1,000 acres more for locatable mineral entry. Additionally, 10,000 acres would be open to fluid mineral leasing and development, while Alternative A withdraws these 10,000 acres. Of the undesignated acres (90 percent), 9,000 acres would be managed according to VRM Class III objectives, resulting in the same impacts as those described under Alternative A, except over 1,000 acres less.

Additionally, 8,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and wildlife habitat, as well as wildlife disturbance. Compared with Alternative A, Alternative D would result in fewer impacts on R&I values, as 10,000 acres would be open to commercial timber development under Alternative A.

Furthermore, 1,000 acres (10 percent of the undesignated area) would overlap with utility corridors. Construction within utility corridors could degrade R&I values due to impacts from surface disturbance and infrastructure associated with this development, including destruction of soils and wildlife habitat, as well as disturbance to wildlife. Compared with Alternative A, which does not overlap with utility corridors, Alternative C2 would result in more impacts on R&I values. Limiting OHV travel to existing routes on 10,000 acres would result in the same impacts as those described under Alternative A.

Alternative D

The entire potential ACEC (10,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C2.

Alternative E (Proposed Plan)

The Midnight Dome/Kalhabuk ACEC would be designated (10,000 acres) to protect Dall sheep habitat and mineral lick protection zones, resulting in greater protection for R&I values than under Alternative A.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing. The ANVLAP analysis determined that opening these lands to allotment selection is not likely to adversely affect and R&I value of Dall sheep or Dall sheep habitat.

The management prescriptions identified in **Appendix J** would protect the R&I values.

T.23 NUGGET CREEK

Alternative A (No Action)

The entire potential ACEC (3,000 acres) would continue to be designated to protect crucial Dall sheep lambing areas and mineral licks. Nugget Creek ACEC is within PLO 5150. The management prescriptions identified in **Appendix J** would protect the R&I values.

Alternative B

The entire potential ACEC (3,000 acres) would be designated to protect priority Dall sheep habitat (including mineral licks). Management actions for other resources and impacts on R&I values would be the same as those described under Alternative A.

Alternative C1

The entire potential ACEC (3,000 acres) would not be designated, resulting in greater impacts on R&I values than under Alternative A. A significant number of hunters use the Dalton Highway for easy access to hunt Dall sheep. Additionally, this potential ACEC contains natural mineral licks, which provide essential minerals to ungulates in the area. They are critical for maintaining healthy Dall sheep populations in the vicinity. Therefore, any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help protect the R&I values. For example, the 3,000 undesignated acres would be encumbered under PLOs, and they would be withdrawn from locatable mineral entry, and 2,000 acres would be closed to mineral material sales. These would prohibit surface-disturbing activities associated with minerals development, helping to protect R&I values. Additionally, 3,000 acres (100 percent of the undesignated area) would be withdrawn from fluid mineral leasing reducing impacts on R&I values by restricting surface disturbance.

Managing these 3,000 acres as VRM Class II would require that development be constructed in a manner that maintains the existing character of the landscape. This would protect R&I values from most impacts associated with management activities with large-scale, ground-disturbing activities. However, it would allow activities that modify the landscape but have low visual contrast and do not attract attention. Additionally, limiting OHV travel to existing routes on 3,000 acres would reduce impacts from motorized and mechanized travel by limiting surface disturbance, wildlife disturbance, and habitat fragmentation.

However, the 3,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and wildlife habitat, as well as wildlife disturbance. Compared with Alternative A, Alternative C1 would result in greater impacts on R&I values, as no acres would be open to commercial timber development under Alternative A.

Under this alternative, 1,000 acres (33 percent of the undesignated area) overlap with the DSSA, while 2,000 acres (66 percent of the undesignated area) overlap with a DSMC. This overlap would provide indirect protections to R&I values. This is because various effects minimization and mitigation requirements, including BMPs and disturbance limits for DSMCs, would be implemented in these areas to protect Dall sheep

habitat. Additionally, various restrictions, such as travel management restrictions and recreation permit limitations, would be enforced to protect R&I values by limiting disturbance.

However, allowing some development for recreational purposes and managing for ROWs could affect and degrade R&I values by allowing surface disturbance. For DSMCs, allowing some development for: recreational purposes, communication towers, transmission lines and pipelines, and ROW and corridor development could degrade R&I value by allowing surface disturbance and infrastructure development.

Lastly, allowing for fluid mineral leasing, locatable mineral entry, and mineral material disposal and development in the DSSA could degrade R&I values due to surface disturbance and infrastructure development. Applying NSO stipulations could help mitigate impacts.

The entire undesignated area overlaps with lands with wilderness characteristics that are managed to emphasize other resource values and multiple uses while applying management restrictions to reduce impacts on wilderness characteristics. (The impacts would be as described under *Accomplishment Creek – Alternative C1*.)

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (3,000 acres) would not be designated, resulting in greater impacts on R&I values than under Alternative A. These 3,000 undesignated acres would overlap with utility corridors. Construction within utility corridors could degrade R&I values due to impacts from surface disturbance and infrastructure associated with this development, including destruction of soils and wildlife habitat, as well as disturbance to wildlife.

PLOs would be recommended for revocation for these 3,000 undesignated acres. These acres would be available for locatable mineral entry and fluid mineral development, and they would be open to mineral material sales. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of soils and wildlife habitat, as well as wildlife disturbance. These 3,000 undesignated acres would be managed according to VRM Class II objectives, which would allow modifications to the landscape that have low visual contrast and do not attract the attention of the casual observer. Managing the ACEC as VRM Class II would require fewer mitigation measures to meet visual resource objectives compared with VRM Class I.

The 3,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and wildlife habitat, as well as wildlife disturbance. Compared with Alternative A, Alternative C2 would result in greater impacts on R&I values, as no acres would be open to commercial timber development under Alternative A.

Limiting OHV travel to existing routes on 3,000 acres would result in the same impacts as those described under Alternative C1.

Alternative D

The entire potential ACEC (3,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C2. However, managing the 3,000 acres as VRM Class III (as opposed to VRM Class II under Alternative C2) would require fewer mitigation measures to meet visual resource objectives compared with VRM Class II.

Alternative E (Proposed Plan)

The entire potential ACEC (3,000 acres) would be designated to protect priority Dall sheep habitat (including mineral licks).

The management prescriptions identified in **Appendix J** would protect the R&I values.

T.24 POSS MOUNTAIN

Alternative A (No Action)

Only 36 percent (9,000 acres) of the entire potential ACEC would continue to be designated to protect crucial Dall sheep lambing areas and mineral licks. The management prescriptions identified in **Appendix J** would protect the R&I values.

The Poss Mountain Dall sheep herd is an isolated subpopulation that is currently under threat due to reduced lamb production in recent years. Additionally, this subpopulation depends on a known mineral lick within the perimeter of the current Poss Mountain ACEC, as well as a mineral lick located to the north of the ACEC on an embankment in Gold Creek. The Gold Creek mineral lick is located near an area of human activity. Additionally, a large mineral site has been established to the west of this mineral lick to support road construction. Mining is currently being conducted to the east of this mineral lick. As a result, this high level of human activity could greatly increase the potential for disturbance to sheep that use this mineral lick. Furthermore, additional development in the area would likely compound disturbance to this isolated subpopulation. Therefore, any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help protect the wildlife and soil R&I values.

For example, of the 16,000 undesignated acres (64 percent of the entire potential ACEC), all would be encumbered PLO 5150 and 2,000 acres (13 percent of the undesignated area) would continue to be withdrawn from locatable mineral entry. This would prohibit surface-disturbing activities associated with minerals development and protect R&I values. Additionally, limiting OHV travel to existing routes on all 16,000 acres would reduce impacts from motorized and mechanized travel by limiting surface disturbance, wildlife disturbance, and habitat fragmentation.

However, 15,000 acres (58 percent of the undesignated area) would continue to be available for locatable mineral entry and 16,000 acres would be open to mineral material sales. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of soils and wildlife habitat, as well as wildlife disturbance.

The entire undesignated area would continue to be managed according to VRM Class III or VRM Class IV objectives, which allow modifications to the landscape that have noticeable or dominant visual contrasts. This could impair R&I values in this area by allowing surface-disturbing activities.

Of the undesignated acres, 9,000 acres (36 percent of the undesignated area) would continue to overlap with DSMCs. This overlap would indirectly protect R&I values, as various effects minimization and mitigation requirements would be implemented in these areas to protect Dall sheep habitat, including disturbance limits and BMPs. Additionally, restrictions such as travel management restrictions and recreation permit limitations, would be enforced protecting R&I values by limiting disturbance.

However, allowing for some development for recreational purposes and communication towers and managing for ROWs in these areas also could degrade R&I values. Some road ROW and corridor development would

be allowed, which could diminish R&I values. Allowing for transmission lines and pipelines in the DSMC could degrade R&I values by allowing for ground disturbance and infrastructure development.

Lastly, allowing for fluid mineral, locatable mineral, and mineral material entry and development could degrade R&I values due to surface disturbance and infrastructure development. Applying NSO stipulations could help mitigate impacts.

Alternative B

The entire potential ACEC (25,000 acres) would be designated to protect priority Dall sheep habitat (including mineral licks), resulting in more protection for R&I values than under Alternative A. The management prescriptions identified in **Appendix J** would protect the R&I values.

Alternative C1

The entire potential ACEC would not be designated (25,000 acres). Of this undesignated area, PLOs would be recommended for revocation for 24,000 acres (96 percent). There would be 24,000 acres (96 percent) available for locatable mineral entry (9,000 acres more than Alternative A) and fluid mineral leasing (no acres would be available for fluid mineral leasing under Alternative A). The 24,000 acres open to locatable mineral entry would be top-filed. There would be 7,000 acres (28 percent) open to mineral material sales, resulting in the same type of impacts as those described under Alternative A, except over a smaller area (10,000 acres less). There would be 18,000 acres (72 percent of the undesignated area) closed to mineral material sales, resulting in greater protection for R&I values than Alternative A. Additionally, 1,000 acres (4 percent of the undesignated area) would remain closed to locatable mineral entry under PLOs (16,000 acres less than under Alternative A), resulting in the same impacts as those described under Alternative A. These 1,000 acres also would be withdrawn from fluid mineral leasing (16,000 acres less than Alternative A).

Managing all 25,000 undesignated acres as VRM Class II would protect R&I values from most impacts associated with management activities with large-scale, ground-disturbing activities. However, it would allow activities that modify the landscape but have low visual contrast and do not attract attention. Compared with Alternative A, this management action would result in greater protection for R&I values.

Of this undesignated area, 1,000 acres (4 percent) overlap with ROW exclusion areas, thereby protecting R&I values by eliminating surface disturbance associated with development. Compared with Alternative A, this management action would result in greater protection for R&I values. Managing any remaining undesignated acres as open to ROWs, where ROWs were developed, degrade R&I values due to surface disturbance associated with development.

Of the total undesignated area, 24,000 acres (99 percent) would be open to commercial timber development. This could degrade R&I values due to surface disturbance, including destruction of soils and wildlife habitat, as well as wildlife disturbance. However, this potential ACEC is in a high alpine environment, and it has no commercially viable timber. Compared with Alternative A, Alternative C1 would result in greater impacts on R&I values, as fewer acres would be open to commercial timber development under Alternative A.

Limiting OHV travel to existing routes on all 25,000 undesignated acres would result in the same type of impacts as those described under Alternative A, except over a larger area (8,000 aces more).

Of the undesignated acres, 1,000 acres (4 percent) overlap with DSHA. This overlap would indirectly protect R&I values, as various effects minimize and mitigate requirements, including disturbance limits, noise restrictions, and BMPs, which would be implemented in these areas to protect Dall sheep habitat. Additionally, DSHA would be prioritized for vegetation management and conservation, with vegetation

removal prohibited, helping to protect the vegetation R&I value. Other restrictions, including aircraft restrictions, recreation permit limitations, and road ROW prohibitions, would be enforced, protecting R&I values. Prohibiting new recreational facilities and communication towers from being built in these areas would help protect R&I values. Prohibiting transmission lines and pipelines in these areas could indirectly protect R&I values by limiting ground disturbance and infrastructure development. Limiting or restricting these areas to fluid mineral, locatable mineral, and mineral material entry and development could protect R&I values by prohibiting or limiting surface disturbance. Compared with Alternative A, this management action would result in greater protection for R&I values.

Furthermore, 18,000 acres (72 percent of the undesignated area) overlap with DSMCs, resulting in the same type of impacts as those described under Alternative A, except over a larger area (9,000 acres more).

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC would not be designated (25,000 acres). PLOs would be recommended for revocation for 24,000 acres of the total non-designated acres. These acres would be available for locatable mineral entry and fluid mineral development, and they would be open to mineral material sales. This would result in the same type of impacts as those described under Alternative A, but over a larger area (10,000 acres more for locatable mineral entry; Alternative A does not open any acres to fluid mineral leasing; and 9,000 acres more for mineral material sales). Of the acres open to locatable mineral entry, 25,000 acres would be top-filed. These 25,000 acres would be managed according to VRM Class II and Class III objectives. Managing the majority (24,000) of these acres as VRM Class III (as opposed to VRM Class II under Alternative C1) would require fewer mitigation measures to meet visual resource objectives compared with VRM Class II.

Additionally, 2,000 acres (8 percent of the undesignated area) would overlap with utility corridors. Compared with Alternative A, this overlap would result in greater impacts on R&I values. This is because construction within utility corridors could degrade R&I values due to impacts from surface disturbance and infrastructure associated with this development, including soils and wildlife habitat destruction and wildlife disturbance.

Nearly all of the undesignated area (24,000 acres) would be open to commercial timber development, which could degrade R&I values due to surface disturbance including destruction of soils and wildlife habitat, as well as wildlife disturbance. However, this potential ACEC is in a high alpine environment, and it has no commercially viable timber. Compared with Alternative A, Alternative C2 would result in greater impacts on R&I values, as fewer acres would be open to commercial timber development under Alternative A.

Limiting OHV travel to existing routes on all 25,000 undesignated acres would result in the same type of impacts as those described under Alternative A, except over a larger area (8,000 acres more).

Alternative D

The entire potential ACEC would not be designated (25,000 acres). Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C2.

Alternative E (Proposed Plan)

The entire potential ACEC (25,000 acres) would be designated to protect priority Dall sheep habitat (including mineral licks), resulting in more protection for R&I values than under Alternative A.

The management prescriptions identified in **Appendix J** would protect the R&I values.

T.25 REDLANDS LAKE RNA

Alternative A (No Action)

The entire potential ACEC/RNA (4,000 acres) would continue to be designated to protect the remnant lake and sand dunes complex. The management prescriptions identified in **Appendix J** would protect the R&I values.

Alternative B

The entire potential ACEC/RNA (4,000 acres) would be designated. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative A.

Alternative C1

The entire potential ACEC/RNA (4,000 acres) would not be designated, resulting in less protection for R&I values than Alternative A. Redlands Lake may be the last large lake on or associated with the dune fields south of the Tanana and Yukon Rivers that has not experienced shoreline development. Consequently, any direct or indirect protection from management actions for other resources within the undesignated potential ACEC would help protect Redlands Lake and its R&I values.

Although this is a research area, no know research has been conducted in more than 20 years.

These acres would be available for locatable mineral entry and fluid mineral development, and they would be open to mineral material sales. Consequently, the R&I values could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of vegetation and erosion that could degrade soils. However, managing these 4,000 acres as VRM Class II would protect R&I values from most impacts associated with management activities with large-scale, ground-disturbing activities. However, it would allow activities that modify the landscape but have low visual contrast and do not attract attention.

The 4,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of vegetation and erosion that could degrade soils. Compared with Alternative A, Alternative C1 would result in greater impacts on R&I values, as no acres would be open to commercial timber development under Alternative A.

All of the undesignated area overlaps with lands with wilderness characteristics that are managed to emphasize other resource values and multiple uses while applying management restrictions to reduce impacts on wilderness characteristics. (The impacts would be described under *Accomplishment Creek – Alternative C1*.)

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC/RNA (4,000 acres) would not be designated, resulting in less protection for R&I values than Alternative A. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative C1, except that no acres would be managed as VRM Class II. Instead, the 4,000 undesignated acres would be managed according to VRM Class IV objectives, which could affect R&I values by allowing surface-disturbing activities.

Alternative D

The entire potential ACEC/RNA (4,000 acres) would not be designated, resulting in less protection for R&I values than Alternative A. Management actions for other resources and impacts on R&I values would result in the same impacts as those described under Alternative C2.

Alternative E (Proposed Plan)

The entire potential ACEC/RNA (4,000 acres) would not be designated.

The area is currently withdrawn from locatable mineral entry, except for metalliferous, and withdrawn from fluid minerals leasing as part of ANCSA 17(d)(1)s. This provides the same protection from such activities as under Alternative A. However, the entire potential ACEC is open to mineral material sales. Consequently, the R&I values could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral materials development, including destruction of vegetation and erosion that could degrade soils. However, given the low total foreseeable need mineral materials in the planning area and that the location most likely to need mineral materials is the Dalton Corridor, the potential for mineral material development is low.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

The ANVLAP analysis determined that opening these lands to allotment selection is not likely to adversely affect the R&I value of the sand dunes.

The area would also be managed as VRM Class IV; impacts would be the same as under Alternative C2. The 4,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of vegetation and erosion that could degrade soils. Compared with Alternative A, Alternative E would result in the same impacts on R&I values, as no acres would be closed to commercial timber development under Alternative A. Given that the undesignated ACEC is a remnant lake and sand dunes complex, commercial timber development is unlikely.

Special management attention is not required to protect the potential Redlands Lake RNA/ACEC because standard or routine management prescriptions are sufficient to protect the resource or value from risks or threats of damage/degradation. The BLM would not designate this ACEC because, although this is a research area, no known research has been conducted in more than 20 years. The R&I values are the remnant lake and sand dunes complex. Given the low potential for environmental impacts in this RNA, the RMP provides protection of R&I values without ACEC special management.

T.26 SETHKOKNA RIVER

Alternative A (No Action)

The entire potential ACEC (299,000 acres) would not be designated. There are no current threats to ACEC values. Any direct or indirect protections from management actions for other resources within the undesignated potential ACEC would help protect these R&I values.

There would be 59,000 acres (20 percent of the undesignated area) that would continue to be withdrawn from locatable mineral entry; 256,000 acres would be withdrawn from fluid mineral leasing (86 percent of the undesignated area), which would prohibit surface-disturbing activities associated with minerals development and protect the R&I values. However, 23,000 acres (8 percent of the undesignated area) would continue to be withdrawn from locatable mineral entry but open to metalliferous mining, which could result in the degradation of R&I values if these activities occurred.

There would be 299,000 acres (100 percent of the undesignated area) that would continue to be encumbered under withdrawals. However, 217,000 acres (73 percent of the undesignated area) would continue to be

available for locatable mineral entry, while 44,000 acres (15 percent of the undesignated area) would be open to fluid mineral leasing. The 217,000 acres open to locatable mineral entry would be state-selected, segregated from mineral entry. All 299,000 undesignated acres would continue to be open to mineral material sales. Consequently, the R&I values in these areas could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development. These impacts include destruction of soils and fish habitat, erosion that could degrade aquatic habitats, and contamination of surface water from wastewater spills and runoff.

Alternative B

The entire potential ACEC (299,000 acres) would be designated to protect crucial Chinook salmon spawning habitat, soil, and water resulting in greater protection of R&I values than under Alternative A. The management prescriptions identified in **Appendix J** would protect the R&I values.

Alternative C1

The entire potential ACEC (299,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative A, except that 31,000 acres (10 percent of the undesignated area) would overlap with areas closed to commercial timber development. By precluding timber infrastructure development, surface disturbance, and riparian habitat damage this would result in greater protection for R&I values than under Alternative A.

The types of impacts from all 299,000 undesignated acres being available for locatable mineral entry and open to mineral material sales would be the same as those described under Alternative A, except they would occur over a larger area (82,000 acres more for locatable minerals and 255,000 acres more for fluid minerals). However, 24,000 acres (8 percent of the undesignated area) would be subject to controlled surface use stipulations for fluid mineral leasing, which would reduce impacts on R&I values by limiting surface disturbance. Of the acres open for locatable mineral entry, 272,000 acres would be state-selected, segregated from mineral entry; 3,000 acres would be Native-selected, segregated from mineral entry. Of the acres open to locatable mineral entry, 61,000 acres are priority 1 or 2 selections. All 299,000 undesignated acres would continue to be open to mineral material sales.

There would be 268,000 undesignated acres (90 percent of the undesignated area) open to commercial timber development, which could degrade R&I values due to surface disturbance including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative C1 would result in fewer impacts on R&I values. This is because more acres would be open to commercial timber development under Alternative A.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (299,000 acres) would not be designated. Withdrawals would be recommended for revocation on 82,000 acres (27 percent of the undesignated area), which is the same as under Alternative A. However, all 299,000 undesignated acres would be available for locatable mineral entry and they would be open to mineral material sales. This would result in the same type of impacts as those described under Alternative A, but over a larger area (82,000 acres more for locatable mineral entry and 255,000 acres more for fluid minerals). Of the acres open to locatable mineral entry, 272,000 acres would be State-selected, segregated from mineral entry. Of those, 58,000 acres are priority 1 or 2 selections.

Of the undesignated area, 268,000 acres (90 percent) would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative C2 would result in

fewer impacts on R&I values, as more acres would be open to commercial timber development under Alternative A.

Alternative D

The entire potential ACEC (299,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would result in the same impacts as those described under Alternative C2.

Alternative E (Proposed Plan)

Under Alternative E, the entire potential ACEC would be designated to protect crucial Chinook salmon spawning habitat, soil, and water resulting in greater protection of R&I values than under Alternative A. Special management prescriptions as described in Appendix J would be applied to stream order-based 100-year floodplain buffers watershed-wide (34,000 acres) to protect R&I values. Within the stream order-based 100-year floodplain buffer areas, the following special management applies: closed to mineral materials disposal, ROW avoidance, NSO for fluid mineral leasing and development, and for all BLM-authorized camps and support facilities would not be located within the confines of the ACEC, including cabins and tent frames, except for scientific purposes.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

Based on the ANVLAP EA analysis, it is anticipated that this partial revocation would result in minimal impacts to fish and fish habitat under Alternative E, including the crucial Chinook salmon spawning habitat R&I values for this ACEC.

Of the designated ACEC, 3,000 acres are currently Native-selected. Even if the BLM designates this land, this portion or nearby potion of this ACEC would be selected. If these lands were conveyed, they would leave federal protection and the conveyed portion of the ACEC would no longer be designated. Impacts to the R&I values of crucial Chinook salmon spawning habitat, soil, and water could occur, but they would be minor.

For areas open to locatable minerals, as per the mining regulations, ACEC designation requires development of a Plan of Operations, subject to the NEPA process, for any exploration activities, thus providing more protection of R&I values for exploration activities within the ACEC relative to lands outside the ACEC where this regulatory requirement does not apply.

Areas within 50 feet of a water body would be closed to commercial timber development, which could prevent degradation of R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative E would result in fewer impacts on R&I values. This is because no acres would be closed to commercial timber development under Alternative A. Making these acres unavailable for commercial timber development would help protect R&I values by precluding timber infrastructure development, surface disturbance, and riparian habitat damage.

T.27 South Fork Koyukuk River

Alternative A (No Action)

The entire potential ACEC (415,000 acres) would not be designated. The proximity of the South Fork Koyukuk River watershed to the Dalton Highway continues to attract economically feasible roads and mining development opportunities. These threaten the watershed's soil and water resources, aquatic habitat, and

fisheries. Any direct or indirect protections from management actions for other resources within the undesignated potential ACEC would help protect these R&I values.

Under this alternative, 414,000 acres (99 percent of the undesignated area) would continue to be encumbered under PLOs and withdrawn from fluid mineral leasing. Additionally, 259,000 acres (62 percent of the undesignated area) would continue to be withdrawn from locatable mineral entry, which would prohibit surface-disturbing activities associated with minerals development and protect R&I values.

Limiting OHV travel to existing routes on 414,000 undesignated acres would reduce impacts on R&I values from motorized and mechanized travel by limiting surface disturbance.

However, 155,000 acres (37 percent of the undesignated area) would continue to be available for locatable mineral entry, and 414,000 undesignated acres would continue to be open to mineral material sales. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of soils and fish habitat, erosion that could degrade aquatic habitats as well as contamination of surface water from wastewater spills and runoff.

The entire undesignated area would continue to be managed according to VRM Class III or VRM Class IV objectives, which allow modifications to the landscape that have noticeable or dominant visual contrasts. This could impair R&I values in this area by allowing surface-disturbing activities.

Alternative B

The entire potential ACEC (415,000 acres) would be designated to protect crucial Chinook salmon and chum salmon spawning habitat, resulting in greater protection for R&I values than under Alternative A. The management prescriptions identified in **Appendix J** would protect the R&I values.

Alternative C1

Only 11 percent of the entire potential ACEC (44,000 acres) would be designated to protect crucial Chinook salmon and chum salmon spawning habitat, resulting in greater protections for R&I values than under Alternative A. The management prescriptions identified in **Appendix J** would protect the R&I values within this designated portion.

Of the 371,000 undesignated acres (89 percent of the entire potential ACEC), PLOs would be recommended for revocation for 359,000 acres (96 percent of the undesignated portion of the ACEC). There would be 12,000 acres (3 percent of the undesignated area) retained under PLO 5150 (400,000 fewer acres than Alternative A). Additionally, 359,000 acres (97 percent of the undesignated area) would be available for locatable mineral entry (206,000 acres more than Alternative A) and fluid mineral leasing (no acres would be available for fluid mineral leasing under Alternative A). All 371,000 undesignated acres would be open to mineral material sales (44,000 acres less than Alternative A). These would result in the same type of impacts as those described under Alternative A. Of the acres open to locatable mineral entry, 63,000 acres would be State-selected, segregated from mineral entry; 21,000 acres would be Native-selected, segregated from mineral entry. There would be 61,000 acres that would be priority 1 or 2 selections.

However, 12,000 acres (3 percent of the undesignated area) would be withdrawn from locatable mineral entry (247,000 acres less than Alternative A) and fluid mineral leasing (400,000 acres less than Alternative A). This would prohibit surface-disturbing activities associated with minerals development and protect R&I values. Additionally, 103,000 acres (25 percent of the undesignated area) would be subject to controlled surface use

stipulations, while 129,000 acres (31 percent of the undesignated area) would be subject to NSO stipulations for fluid mineral leasing. This could reduce impacts on R&I values by limiting surface disturbance.

The 361,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. However, timber values for the predominantly black spruce are low. Compared with Alternative A, Alternative C1 would result in fewer impacts on R&I values, as more acres would be open to commercial timber development under Alternative A.

Limiting OHV travel to existing routes on all 371,000 undesignated acres would result in the same type of impacts as those described under Alternative A, but over a smaller area (41,000 fewer acres). However, 23,000 acres (6 percent of the undesignated area) also would overlap with utility corridors. Construction within utility corridors could degrade R&I values due to impacts from surface disturbance and infrastructure associated with this development, including destruction of soils. Compared with Alternative A, which does not overlap with any utility corridors, Alternative C1 would result in greater impacts on R&I values.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (415,000 acres) would not be designated. PLOs would be recommended for revocation for 415,000 undesignated acres. These acres would be available for locatable mineral entry (260,000 acres more than Alternative A) and fluid mineral leasing (415,000 acres more than Alternative A, which does not allow fluid mineral leasing), and open to mineral material sales (same as Alternative A). These would result in the same type of impacts as those described under Alternative A. Of the acres open to locatable mineral entry, 24,000 acres would be Native-selected, segregated from mineral entry; 69,000 acres would be state-selected, segregated from mineral entry. Compared with Alternative A, Alternative C2 would result in greater impacts on R&I values, given that Alternative A withdraws 259,000 acres from locatable mineral entry and 412,000 acres from fluid mineral leasing.

There would be 36,000 acres of this ACEC that would overlap with utility corridors, resulting in the same type of impacts as those described under Alternative C1, but over a larger area (13,000 acres more).

Of the 415,000 undesignated acres, 375,000 acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative C2 would result in greater impacts on R&I values. This is because no acres would be open to commercial timber development under Alternative A.

Limiting OHV travel to existing routes on 415,000 undesignated acres would result in the same impacts as those described under Alternative A.

Alternative D

The entire potential ACEC (415,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would result in the same impacts as those described under Alternative C2.

Alternative E (Proposed Plan)

The entire potential ACEC (415,000 acres) would be designated to protect crucial Chinook salmon and chum salmon spawning habitat, resulting in greater protections for R&I values than under Alternative A. Special management prescriptions as described in **Appendix J** would be applied to stream order-based 100-year floodplain buffers watershed-wide (44,000 acres) to protect R&I values. Within the stream order-based 100-

year floodplain buffer areas, the following special management applies: closed to mineral materials disposal, ROW avoidance, NSO for fluid mineral leasing and development, and for all BLM-authorized camps and support facilities would not be located within the confines of the ACEC, including cabins and tent frames, except for scientific purposes.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

Based on the ANVLAP EA analysis, it is anticipated that this partial revocation would result in minimal impacts to fish and fish habitat under Alternative E, including the crucial Chinook salmon spawning habitat and chum salmon spawning habitat R&I values for this ACEC.

Of the designated ACEC, 24,000 acres are currently Native-selected. Even if the BLM designates this land, this portion or nearby potion of this ACEC may be conveyed. If lands were conveyed, they would leave federal protection and the conveyed portion of the ACEC would no longer be designated. Impacts to the R&I values of fish and riparian habitat could occur, but they would be minor.

For areas open to locatable minerals, as per the mining regulations, ACEC designation requires development of a Plan of Operations, subject to the NEPA process, for any exploration activities, thus providing more protection of R&I values for exploration activities within the ACEC relative to lands outside the ACEC where this regulatory requirement does not apply.

Areas within 50 feet of a water body would be closed to commercial timber development, which could prevent degradation of R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative E would result in fewer impacts on R&I values. This is because no acres would be closed to commercial timber development under Alternative A. Making these acres unavailable for commercial timber development would help protect R&I values by precluding timber infrastructure development, surface disturbance, and riparian habitat damage.

T.28 SOUTH TODATONTEN SUMMIT RNA

Alternative A (No Action)

The entire potential ACEC/RNA (1,000 acres) would continue to be designated to protect open system pingos. The management prescriptions identified in **Appendix J** would protect the R&I values.

Alternative B

The entire potential ACEC/RNA (1,000 acres) would be designated to protect the soil, hydrologic processes, and vegetation associated with the pingos system. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative A.

Alternative C1

The entire potential ACEC/RNA (1,000 acres) would not be designated, resulting in more impacts on R&I values than under Alternative A. Currently, there are no threats to the R&I values. Any direct or indirect protections from management actions for other resources within the undesignated potential ACEC/RNA would help protect these R&I values.

All 1,000 undesignated acres would be available for locatable mineral entry and would be open to mineral material sales. All 1,000 acres open for locatable mineral entry would be state-selected, segregated from mineral entry. As a result, R&I values could be degraded due to impacts from infrastructure and surface

disturbance associated with mineral development, including destruction of soils and vegetation and contamination of surface water from wastewater spills and runoff.

All 1,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and vegetation. Compared with Alternative A, Alternative C1 would result in the same impacts on R&I values, as no acres would be closed to commercial timber development under Alternative A.

All of the undesignated area that overlaps with lands with wilderness characteristics that are managed to emphasize other resource values and multiple uses while applying management restrictions reduce impacts on wilderness characteristics. The impacts would be as described under *Accomplishment Creek – Alternative C1*.)

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC/RNA (1,000 acres) would not be designated, resulting in more impacts on R&I values than under Alternative A. However, the 1,000 undesignated acres would overlap with ROW avoidance areas. Compared with Alternative A, which does not overlap with any ROW avoidance areas, Alternative C2 would result in greater protection for R&I values. While not as protective as ROW exclusion, managing these areas as ROW avoidance make them available for ROW location on a case-by-case basis. R&I values could be degraded if development requiring a ROW permit were to occur in the area; however, prohibiting commercial energy development and allowing only minor land use authorizations would continue to help protect R&I values by minimizing or eliminating surface disturbance associated with development.

Management actions for other resources and impacts on R&I values would be similar to those described under Alternative C1.

Alternative D

The entire potential ACEC/RNA (1,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative C1, except that no acres would overlap with lands with wilderness characteristics.

Alternative E (Proposed Plan)

The entire potential ACEC/RNA (1,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative C1. Impacts from ROW development would be the same as under Alternative C2.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing. The ANVLAP analysis determined that potential negative effects to features like features like pingos are likely to be minimal if future land use practices remain similar in scope and scale to historic levels. Based on this analysis it is anticipated that the partial revocation would result in minimal impacts to pingos under Alternative E.

Special management attention is not required to protect the potential South Todatonen Summit RNA/ACEC because standard or routine management prescriptions are sufficient to protect the resource or value from risks or threats of damage/degradation. Routine management measures to protect pingos, especially ROW avoidance, would protect the R&I values.

T.29 SPOOKY VALLEY RNA

Alternative A (No Action)

The entire potential ACEC/RNA (10,000 acres) would continue to be designated to protect geological, physiographic, vegetation, and scenic values. The management prescriptions identified in **Appendix J** would protect the R&I values.

Alternative B

The entire potential ACEC/RNA (9,000 acres) would be designated to: protect vegetation, special status vegetation, scenery, and caribou habitat. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative A.

Alternative C1

The entire potential ACEC/RNA (9,000 acres) would not be designated, resulting in more impacts on R&I values than under Alternative A. Currently, there are no threats to the R&I values. Any direct or indirect protections from management actions for other resources within the undesignated potential ACEC/RNA would help protect R&I values. For example, managing these 9,000 undesignated acres as VRM Class I would protect scenic values by managing for preservation of the landscape and providing for natural ecological changes. Managing to meet VRM Class I objectives does not preclude very limited management activity, but it could preclude surface-disturbing activities, such as mineral development, ROW location, and recreation facilities, if they are not able to meet the visual resource objectives. Where these types of activities are able to be mitigated to meet VRM objectives, it is likely that the associated mitigation, such as surface reclamation, revegetation techniques, and minimizing cuts and fills, also would minimize impacts on wildlife species and vegetation over the long-term.

Allowing recreation and development for recreation uses on the 9,000 undesignated acres would disturb the area's surface, and they could affect R&I values by flattening or destroying vegetation; degrading and fragmenting wildlife habitat; and disturbing wildlife. However, impacts would be reduced where recreation is restricted to designated areas or prohibited and where travel is closed. Additionally, recreation facility development would be designed to avoid affecting R&I values. Managing the 9,000 acres as an extensive recreation management area would help protect and retain R&I values by limiting the impacts of widespread recreation.

The 9,000 undesignated acres would be available for locatable mineral entry but closed for fluid mineral leasing. All 9,000 acres open for locatable mineral entry would be State-selected, segregated from mineral entry. Consequently, the R&I values could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of wildlife habitat and vegetation.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC/RNA (9,000 acres) would not be designated, resulting in more impacts on R&I values than under Alternative A. These 9,000 undesignated acres would be available for locatable mineral entry. Consequently, the R&I values could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of wildlife habitat and vegetation. No acres would be open to mineral material sales. Of the acres open to locatable mineral entry, 9,000 acres would be State-selected, segregated from mineral entry.

These 9,000 undesignated acres would be managed according to VRM Class IV objectives, which also could affect R&I values by allowing surface-disturbing activities.

Alternative D

The entire potential ACEC/RNA (9,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative C2, except all 9,000 undesignated acres would be open to mineral material sales. Consequently, the R&I values could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of wildlife habitat and vegetation.

Alternative E (Proposed Plan)

The entire potential ACEC/RNA (9,000 acres) would not be designated. The R&I values for Spooky Valley RNA are geological, physiographic, vegetation, and scenic values. The Tozitna ACEC's R&I values are crucial salmon spawning habitat and Ray Mountains Herd (RMH) core habitat. Protections for the Tozitna ACEC (NSO for fluid minerals, closed to mineral materials development, and keeping BLM-authorized camps and support facilities within the confines of the ACEC, including cabins and tent frames out of the 100-year floodplain) would protect the R&I values of the Spooky Valley RNA. Spooky Valley RNA is within Tozitna ACEC, designated in Alternative E, and therefore designation of Spooky Valley is not needed to protect R&I values because the Tozitna ACEC allocations would protect the Spooky Valley undesignated ACEC also.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing. Based on the ANVLAP analysis, impacts to the values of Spooky Valley's geological, physiographic, vegetation, and scenic values are expected to be limited based on historic land use patterns on Native Allotments in Alaska. There is a low likelihood of selections or subsequent development in this area because of its remoteness.

Management actions for other resources and impacts on R&I values would be similar to those described under Alternative C2.

T.30 SUKAKPAK/SNOWDEN MOUNTAIN

Alternative A (No Action)

Only 2 percent of the potential Sukakpak/Snowden Mountain ACEC (3,000 acres of 124,000 acres total) would be designated to protect high scenic values and geology. In addition, 30,000 acres (24 percent of the total Sukakpak/Snowden Mountain potential ACEC) would be designated as the Snowden Mountain ACEC to protect Dall sheep habitat. In total, 27 percent of the total Sukakpak/Snowden Mountain potential ACEC would be designated under Alternative A. The management prescriptions identified in **Appendix J** would protect the R&I values within these designated areas.

This area is easily accessible from the Dalton Highway for many groups including tour groups, hikers, hunters, and tourists. The tour group numbers are increasing. Additionally, this area is within the utility corridor, which contains a pipeline and various ROWs. Also, the area contains natural mineral licks, which provide essential minerals to ungulates, and they are essential for maintaining healthy populations of Dall sheep populations in the vicinity. Consequently, any direct or indirect protections from management actions for other resources within the undesignated potential ACEC would help protect these R&I values.

For example, of the remaining 91,000 undesignated acres (73 percent of the entire potential ACEC acres), 3,000 acres (2 percent of the undesignated area) would continue to overlap with rivers identified as eligible or

suitable for inclusion in the NWSRS. The areas that overlap or are adjacent to these eligible or suitable segments would receive some indirect protection from WSR management.

The entire undesignated area would be encumbered under PLO 5150 and withdrawn from fluid mineral leasing. However, 65,000 acres (71 percent of the undesignated area) would continue to be available for locatable mineral entry, while all of the undesignated area would continue to be open to mineral material sales. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of geologic features and scenic values. There would be 26,000 acres (29 percent of the undesignated area) that would continue to be withdrawn from locatable mineral entry, which would prohibit surface-disturbing activities associated with minerals development and protect the R&I values in this area.

Limiting OHV travel to existing routes on all of the undesignated area would reduce impacts on R&I values from motorized and mechanized travel by limiting surface disturbance.

Other restrictions including aircraft restrictions, recreation permit limitations, and road ROW prohibitions would be enforced, protecting R&I values. Prohibiting construction of new recreational facilities and communication towers would help protect R&I values. Furthermore, prohibiting transmission lines and pipelines could indirectly protect R&I values by limiting ground disturbance and infrastructure development. Lastly, limiting or restricting these areas to fluid mineral, locatable mineral, and mineral materials entry and development could protect R&I values by prohibiting or limiting surface disturbance.

Allowing some development for recreational purposes and managing ROWs also could affect and degrade R&I values. Lastly, allowing for fluid mineral, locatable mineral, and mineral materials entry and development could degrade R&I values due to surface disturbance and infrastructure development. However, applying NSO stipulations could help mitigate impacts.

Alternative B

The entire potential ACEC (124,000 acres) would be designated to protect priority Dall sheep habitat (including mineral licks), high scenic values, and geology. This would result in greater protections for R&I values than Alternative A. The management prescriptions identified in **Appendix J** would protect the R&I values.

Alternative C1

The entire potential ACEC (124,000 acres) would be designated to protect high scenic values and geology, resulting in greater protections for R&I values than Alternative A. The management prescriptions identified in **Appendix J** would protect the R&I values.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (124,000 acres) would not be designated. Under this alternative, 46,000 acres (37 percent of the undesignated area) would overlap with utility corridors. Construction within utility corridors could degrade R&I values due to impacts from surface disturbance and infrastructure associated with this development, including destruction of geological features. Compared with Alternative A, which does not overlap with utility corridors, Alternative C2 would result in greater degradation of R&I values from this management action.

Additionally, PLOs would be recommended for revocation for 123,000 undesignated acres. These acres would be available for locatable mineral entry and fluid mineral leasing, and they would be open to mineral material

sales. These could affect R&I values due to surface disturbance and infrastructure associated with this development, potentially resulting in the destruction of geologic or scenic features. The 123,000 acres open to locatable mineral entry would be top-filed. Compared with Alternative A, which retains 91,000 acres under PLOs and withdraws 91,000 acres from fluid mineral leasing, Alternative C2 could result in greater degradation of R&I values from this management action.

There would be 46,000 acres (37 percent of the undesignated area) managed according to VRM Class II objectives and 78,000 acres (63 percent of the undesignated area) would be managed according to VRM Class III objectives, which allow modifications to the landscape that have noticeable or dominant visual contrasts. This could impair R&I values in this area by allowing surface-disturbing activities.

There would be 121,000 acres open to commercial timber development, which could degrade R&I values due to surface disturbance, potentially resulting in the destruction of scenic features. However, this potential ACEC is in a high alpine environment, and it has no commercially viable timber.

Limiting OHV travel to existing routes on 124,000 acres would result in the same type of impacts as those described under Alternative A, except over a larger area (33,000 acres more).

Alternative D

The entire potential ACEC (124,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative C2, except 123,000 acres would be managed according to VRM Class III objectives. This would result in greater impacts than Alternative C2.

Alternative E (Proposed Plan)

Of the Sukakpak/Snowden Mountain area, 50,000 acres (40 percent of the entire potential ACEC area) would be designated to protect priority Dall sheep habitat (including mineral licks). This would result in greater protections for R&I values than Alternative A. The management prescriptions identified in **Appendix J** would protect the R&I values. The remaining 74,000 acres (60 percent of the entire potential ACEC area) would not be designated to protect high scenic values and geology.

The entire undesignated area would be encumbered under PLO 5150 and withdrawn from fluid mineral leasing and mineral entry, while all the undesignated area would continue to be open to mineral material sales. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of geologic features and scenic values. However, the VRM Class II objective would reduce these impacts**.** There would be 29,000 acres (40 percent of the undesignated area) that would continue to be withdrawn from locatable mineral entry, which would prohibit surface-disturbing activities associated with minerals development and protect the R&I values in this area. Portions of the areas open to locatable mineral entry and metalliferous entry have medium development potential.

Limiting OHV travel to existing routes on all the undesignated area would reduce impacts on R&I values from motorized and mechanized travel by limiting surface disturbance.

The designated portion of the ACEC would be managed as VRM Class II objectives, which would not allow modifications to the landscape that have noticeable or dominant visual contrasts. This could protect R&I values of the high scenic values and geology R&I values.

T.31 SULUKNA RIVER

Alternative A (No Action)

Only 6 percent of the entire potential ACEC (25,000 acres of 398,000 acres total) would be designated to protect crucial salmon and sheefish (inconnu) spawning habitat. The management prescriptions identified in **Appendix J** would protect the R&I values within this designated area.

The Sunshine Mountain Caribou Herd is potentially vulnerable to adverse change, such as from habitat fragmentation or development. Consequently, any direct or indirect protections from management actions for other resources within the remaining undesignated potential ACEC (374,000 acres of the entire potential ACEC) would help protect this species. For example, 3,000 acres (1 percent of the undesignated area) would continue to overlap with rivers identified as eligible or suitable for inclusion in the NWSRS. The areas that overlap or are adjacent to these eligible or suitable segments would receive some indirect protection from WSR management. This indirect protection likely would include protection for crucial salmon and sheefish spawning habitat as well as riparian vegetation. Additionally, limiting OHV travel to existing routes on all 374,000 undesignated acres would reduce impacts from motorized and mechanized travel in the undesignated area by limiting: surface disturbance, vegetation destruction, wildlife disturbance, and habitat fragmentation.

Under this alternative, 374,000 acres (94 percent of the undesignated area) would continue to be encumbered under withdrawals. Additionally, 141,000 acres (38 percent of the undesignated area) would continue to be withdrawn from locatable mineral entry and 238,000 acres (64 percent of the undesignated area) withdrawn from fluid mineral leasing, which would prohibit surface-disturbing activities associated with minerals development and protect the R&I values.

However, 233,000 acres (62 percent of the undesignated area) would continue to be available for locatable mineral entry and 136,000 acres (36 percent of the undesignated area) fluid mineral leasing, while all 374,000 undesignated acres would continue to be open to mineral material sales. Of the acres open for locatable mineral entry, 208,000 acres would be State-selected, segregated from mineral entry. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development including destruction of soils and fish habitat; erosion that could degrade aquatic habitats; destruction of wildlife habitat; disturbance to wildlife; and contamination of surface water from wastewater spills and runoff.

Alternative B

The entire potential ACEC (398,000 acres) would be designated to protect crucial spawning and rearing habitat for sheefish (inconnu) and other whitefish and salmon species. This would result in more protection for R&I values than Alternative A. The management prescriptions identified in **Appendix J** would protect the R&I values within this designated portion of the ACEC.

Alternative C1

Only 13 percent (51,000 acres) of the entire potential ACEC acres would be designated to protect crucial spawning and rearing habitat for sheefish (inconnu) and other whitefish and salmon species. Compared with Alternative A, Alternative C1 would result in greater protection for R&I values, given that Alternative C1 designates 26,000 acres more. The management prescriptions identified in **Appendix J** would protect the R&I values within this designated portion of the ACEC.

Of the remaining 348,000 undesignated acres (87 percent of the entire potential ACEC acres), withdrawals would be recommended for revocation for 132,000 acres (38 percent of the undesignated portion of the ACEC). This would result in greater impacts than under Alternative A, which retains 374,000 acres under

withdrawals. However, all 348,000 undesignated acres would be available for locatable mineral entry and they would be open to mineral material sales. Of these acres, 73,000 acres would be top-filed. These actions would result in the same type of impacts as those described under Alternative A, except over a larger area for locatable mineral entry. However, 4,000 acres (less than 1 percent of the undesignated area) would be subject to controlled surface use stipulations for fluid mineral leasing, helping to reduce impacts on R&I values by reducing surface disturbance.

These 348,000 undesignated acres would be managed according to VRM Class IV objectives, which could diminish R&I values by allowing surface-disturbing activities.

The 342,000 undesignated acres (98 percent of the undesignated portion of the ACEC) would be open to commercial timber development, which could degrade R&I values due to surface disturbance including destruction of soils and fish habitat; erosion that could degrade aquatic habitats; destruction of wildlife habitat; and disturbance to wildlife. Compared with Alternative A, Alternative C1 would result in greater impacts on R&I values, as no acres would be open to commercial timber development under Alternative A.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (398,000 acres) would not be designated, resulting in less protection for R&I values than under Alternative A. Withdrawals would be recommended for revocation on 149,000 acres (37 percent of the undesignated area), resulting in greater impacts than under Alternative A. Additionally, 340,000 undesignated acres would be available for locatable mineral entry and 245,000 undesignated acres would be open to mineral material sales, and open to fluid mineral leasing. This would result in the same type of impacts as those described under Alternative A, but over a greater area than Alternative A. Of the acres open to locatable mineral entry, 87,000 acres would be Native-selected, segregated from mineral entry; 269,000 acres would be State-selected, segregated from mineral entry. Of the acres open to locatable mineral entry, 129,000 acres would be priority 1 or 2 selections.

These 398,000 acres would be managed according to VRM Class IV objectives, which also could diminish R&I values by allowing surface-disturbing activities. Compared with Alternative A, which manages 374,000 acres as VRM unclassified, Alternative C2 could result in greater impacts on R&I values.

The 374,000 undesignated acres would be open to commercial timber development, which could degrade R&I values, due to surface disturbance including destruction of soils and fish habitat; erosion that could degrade aquatic habitats; destruction of wildlife habitat; and disturbance to wildlife. Alternative C2 would result in the same impacts on R&I values as Alternative A.

Alternative D

The entire potential ACEC (398,000 acres) would not be designated, resulting in less protection for R&I values than under Alternative A. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C2.

Alternative E (Proposed Plan)

The entire potential ACEC area 398,000 acres (100 percent of the potential ACEC) would be designated to protect crucial spawning and rearing habitat for sheefish (inconnu) and other whitefish and salmon species. Compared with Alternative A, Alternative E would result in greater protection for R&I values, given that Alternative E designates 373,000 more acres. Special management prescriptions as described in **Appendix J** would be applied to stream order-based 100-year floodplain buffers watershed-wide (51,000 acres) to protect R&I values. Within the stream order-based 100-year floodplain buffer areas, the following special

management applies: closed to mineral materials disposal, ROW avoidance, NSO for fluid mineral leasing and development, and for all BLM-authorized camps and support facilities would not be located within the confines of the ACEC, including cabins and tent frames, except for scientific purposes.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

Based on the ANVLAP EA analysis, it is anticipated that this partial revocation would result in minimal impacts to fish and fish habitat under Alternative E, including the crucial spawning and rearing habitat for sheefish (inconnu) and other whitefish and salmon species R&I values for this ACEC.

Of the designated ACEC, 87,000 acres are currently Native-selected. Even if the BLM designates this land, this portion or nearby potion of this ACEC could be conveyed. If these lands were conveyed, they would leave federal protection and the conveyed portion of the ACEC would no longer be designated. Impacts to the R&I values of protect crucial salmon and sheefish (inconnu) spawning habitat.

For areas open to locatable minerals, as per the mining regulations, ACEC designation requires development of a Plan of Operations, subject to the NEPA process, for any exploration activities, thus providing more protection of R&I values for exploration activities within the ACEC relative to lands outside the ACEC where this regulatory requirement does not apply.

Areas within 50 feet of a water body would be closed to commercial timber development, which could prevent degradation of R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative E would result in fewer impacts on R&I values. This is because no acres would be closed to commercial timber development under Alternative A. Making these acres unavailable for commercial timber development would help protect R&I values by precluding timber infrastructure development, surface disturbance, and riparian habitat damage.

T.32 TOOLIK LAKE RNA

Alternative A (No Action)

Under this alternative, 73 percent of the potential ACEC/RNA (77,000 acres of 106,000 acres total) would continue to be designated to protect research activities at the Toolik Field Station. The management prescriptions identified in **Appendix J** would protect the R&I values within this designated area. The Toolik Lake Field Station is one of the premier Arctic field stations in the United States. Any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help protect the R&I values. For example, limiting OHV travel to existing routes on the 29,000 undesignated acres (27 percent of the entire potential ACEC/RNA) would reduce impacts from motorized and mechanized travel by limiting: surface disturbance, vegetation destruction, wildlife disturbance, and habitat fragmentation. This would help to protect special status plant species.

Additionally, these 29,000 acres would continue to be encumbered under PLO 5150, and they would be withdrawn from locatable mineral entry and fluid mineral leasing. This would prohibit surface-disturbing activities associated with minerals development and protect R&I values, especially special status species. However, these acres would be open to mineral material disposal, which could diminish R&I values. Additionally, these 29,000 undesignated areas would continue to be managed according to VRM Class IV objectives, which could diminish R&I values by allowing surface-disturbing activities. Fewer mitigation measures would be needed to meet visual resource objectives compared with VRM Class II.

Alternative B

The entire potential ACEC/RNA (106,000 acres) would be designated to protect the high-value Toolik Field Station. The management prescriptions identified in **Appendix J** would protect the R&I values.

Alternative C1

The entire potential ACEC/RNA (106,000 acres) would be designated. The designated area and management prescriptions under this alternative would be the same as those described under Alternative B.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

Under this alternative, 73 percent of the potential ACEC/RNA (77,000 acres of 106,000 acres total) would continue to be designated. Management prescriptions under this alternative would be the same as those described under Alternative A, except no acres would be withdrawn from locatable mineral entry or fluid mineral leasing resulting in greater impacts on R&I values. All of the acres open to locatable mineral entry would be top-filed.

Alternative D

The Toolik Lake ACEC/RNA would not be designated under this alternative (106,000 acres). All 106,000 undesignated acres would be open for locatable mineral entry and fluid mineral leasing, and open to mineral material sales. PLOs would be recommended for revocation for all 106,000 undesignated acres. The location along the Dalton Highway with easy access would increase the probability of development and infrastructure that, without mitigations for soils and vegetation conditions, would affect the values of the RNA and existing research infrastructure. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development. These impacts include disturbance to vegetation and wildlife and destruction of wildlife habitat and existing research infrastructure and projects.

Alternative E (Proposed Plan)

The entire potential ACEC/RNA area (106,00 acres) would be designated to protect the high-value Toolik Field Station.

The management prescriptions identified in **Appendix J** would protect the R&I values.

T.33 TOZITNA, TOZITNA RIVER, AND TOZITNA SUBUNITS NORTH AND SOUTH

Alternative A (No Action)

Under this alternative, 842,000 acres of the Tozitna River ACEC would continue to be designated to protect crucial salmon spawning habitat. Additionally, 192,000 acres of the Tozitna Subunits North and South would continue to be designated as an ACEC to protect the Ray Mountains Herd (RMH) core habitat (crucial caribou calving habitat). The management prescriptions identified in **Appendix J** would help protect the R&I values within this designated ACEC area. However, 112,000 acres of the Tozitna ACEC would be undesignated. Any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help protect the R&I values.

The upper portion of this potential ACEC has high mineral potential and it contains rare earth minerals. If this area is opened for development, disturbance to soil and water in the Tozitna River is likely. Additionally, there is a nonmigratory caribou herd in this area that uses the uplands in an area that has high mineral potential and rare earth minerals in the upper third of this area.

Under this alternative, 112,000 acres of the undesignated area of the Tozitna ACEC would continue to be encumbered under a withdrawal. Of these undesignated acres, 55,000 would continue to be withdrawn from locatable mineral entry and 112,000 would continue to be withdrawn under fluid mineral leasing, which would prohibit surface-disturbing activities associated with minerals development and protect the R&I values within this ACEC. However, 53,000 undesignated acres of the Tozitna ACEC would continue to be available for locatable mineral entry; 112,000 acres of the Tozitna ACEC would continue to be open to mineral material sales. Of the acres open for locatable mineral entry for the Tozitna ACEC, 53,000 would be State-selected, segregated from mineral entry. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development. These impacts include destruction of soils and fish habitat; erosion that could degrade aquatic habitats; destruction of wildlife habitat; disturbance to wildlife; and contamination of surface water from wastewater spills and runoff.

Under this alternative, 3,000 acres of the undesignated area of the Tozitna ACEC would continue to overlap with rivers identified as eligible or suitable for inclusion in the NWSRS. The ACEC acres that overlap or are adjacent to these eligible or suitable segments would receive some indirect protection from WSR management. This indirect protection likely would include protection for crucial salmon spawning habitat within the Tozitna River. This is because the BLM would take no action that would adversely affect the free-flowing condition; ORVs and adequate water quality to support ORVs; or tentative classification of the eligible or suitable WSR segments.

Limiting OHV travel to existing routes on 112,000 undesignated acres of the Tozitna ACEC would reduce impacts from motorized and mechanized travel in the undesignated area by limiting: surface disturbance, vegetation destruction, wildlife disturbance, and habitat fragmentation.

Alternative B

Under this alternative, all 1,043,000 acres of the Tozitna ACEC would be designated to protect caribou habitat, soils, water, and crucial salmon spawning habitat. The management prescriptions identified in **Appendix J** would help protect the R&I values within this designated area. However, 82,000 acres of the Tozitna River ACEC and 23,000 acres of the Tozitna River Subunits North and South would be undesignated. Any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help protect the R&I values.

Withdrawals would be recommended for revocation for 73,000 undesignated acres of the Tozitna River ACEC and 1,000 undesignated acres for Tozitna Subunits North and South (no acres would be recommended for revocation under Alternative A). Additionally, 75,000 undesignated acres of the Tozitna River ACEC would be available for locatable mineral entry, while 13,000 undesignated acres of the Tozitna River Subunits North and South would be available. This would result in the same type of impacts as those described under Alternative A for the Tozitna ACEC, but over a greater area. Of the acres open for locatable mineral entry for the Tozitna River ACEC, 47,000 acres would be State-selected, segregated from mineral entry and 14,000 acres would be Native-selected, segregated from mineral entry. Of the acres open to locatable mineral entry, 11,000 acres would be top-filed. Of the acres open for locatable mineral entry for Tozitna Subunits North and South, 12,000 acres would be State-selected, segregated from mineral entry.

There would be 70,000 acres of the Tozitna River ACEC open to fluid mineral leasing, while 1,000 acres of the Tozitna River Subunits North and South would be open to fluid mineral leasing. This could degrade R&I values due to surface disturbance including destruction of soils and fish habitat; erosion that could degrade aquatic habitats; destruction of wildlife habitat; disturbance to wildlife; and contamination of surface water from wastewater spills and runoff. However, 50,000 acres of the Tozitna River ACEC would be subject to

NSO stipulations for fluid mineral development, which could help protect R&I values by limiting surface disturbance.

Of the undesignated area, 3,000 acres of the Tozitna River ACEC would be closed to mineral material sales and closed to fluid mineral leasing. This would provide some protection for R&I values, compared with Alternative A, which does not close any acres to mineral material sales. However, 79,000 undesignated acres of the Tozitna River ACEC and 22,000 acres of the Tozitna River Subunits North and South would be open to mineral material sales, which could degrade R&I values by allowing surface disturbance and infrastructure development. Compared with Alternative A, which does not open any acres for mineral material sales for the Tozitna River ACEC or Tozitna Subunits North and South, Alternative B would result in greater impacts on R&I values.

Additionally, 78,000 undesignated acres of the Tozitna River ACEC and 22,000 undesignated acres of Tozitna River Subunits North and South would be open to commercial timber development, which could degrade R&I values due to surface disturbance including: destruction of soils and fish habitat; erosion that could degrade aquatic habitats; destruction of wildlife habitat; and disturbance to wildlife. Compared with Alternative A, which does not overlap with any acres open to commercial timber development, Alternative B would result in greater impacts on R&I values.

Of the undesignated area for the Tozitna River ACEC, 3,000 acres overlap with ROW exclusion areas. Managing this area as a ROW exclusion makes it unavailable for a ROW location, thereby protecting R&I values by eliminating surface disturbance associated with development. Compared with Alternative A, which does not overlap with any ROW exclusion areas, Alternative B would result in greater protection for R&I values. Managing potential ACECs as open to ROWs could, where ROWs were developed, degrade R&I values due to surface disturbance associated with development.

Additionally, 42,000 undesignated acres of the Tozitna River ACEC and 8,000 acres of the Subunits North and South overlap with ROW avoidance areas. Again, compared with Alternative A, which does not overlap with any ROW avoidance areas, Alternative B would result in greater protection for R&I values. While not as protective as ROW exclusion, managing these areas as ROW avoidance make them available for ROW location on a case-by-case basis. R&I values could be degraded if development requiring a ROW permit were to occur in the area; however, prohibiting commercial energy development and allowing only minor land use authorizations would continue to help protect R&I values by minimizing or eliminating surface disturbance associated with development.

Limiting OHV travel to existing routes on 82,000 undesignated acres of the Tozitna River ACEC and 23,000 acres of Tozitna Subunits North and South would result in the similar type of impacts as those described under Alternative A for the Tozitna River ACEC.

Alternative C1

The Tozitna ACEC (1,043,000 acres) and the Tozitna River ACEC (842,000 acres, this is the portion of the Tozitna River ACEC not covered by the Tozitna ACEC) would not be designated under this alternative. Additionally, the Tozitna River Subunits North and South would not be designated (192,000 acres, this is the portion of the Tozitna River Subunits North and South not covered by Tozitna ACEC not Tozitna River ACEC). Withdrawals would be recommended for revocation for 121,000 acres the undesignated ACEC acres for the Tozitna ACEC, 73,000 acres for the Tozitna River ACEC, and 1,000 acres of Tozitna River Subunits North and South.

Of the undesignated area, 82,000 acres of the Tozitna River ACEC would be available for locatable mineral entry and open to mineral material sales, while 23,000 acres of the Tozitna River Subunits North and South would be open for locatable mineral entry and 8,000 acres would be open to mineral sales. There would be 640,00 acres of the Tozitna ACEC open to mineral material sales and 1,038,000 open to locatable mineral entry. This would result in the same type of impacts as those described under Alternative A for the Tozitna ACEC (no acres would be limited for the Tozitna River ACEC or Tozitna Subunits North and South under Alternative A). Of the acres open for locatable mineral entry for the Tozitna ACEC, 687,000 acres would be state-selected, segregated from mineral entry and 14,000 acres would be Native-selected, segregated from mineral entry. Of the acres open to locatable mineral entry, 141,000 acres would be priority selections 1 and 2. Of the acres open for locatable mineral entry for the Tozitna River ACEC, 47,000 acres would be state-selected, segregated from mineral entry and 14,000 acres would be Native-selected, segregated from mineral entry. Of the acres open to locatable mineral entry, 11,000 acres would be priority selections 1 or 2. Lastly, 12,000 acres of the acres open for locatable mineral entry for the Tozitna Subunits North and South would be state-selected, segregated from mineral entry.

There would be 2,000 undesignated acres of the Tozitna River ACEC closed to mineral material sales. Additionally, 15,000 acres of Tozitna Subunits North and South would be recommended for closure (no acres recommended for closure under Alternative A), and they would be closed to mineral material sales (no acres closed under Alternative A). There would be 403,000 undesignated acres of the Tozitna ACEC closed to mineral material sales. These actions could help protect R&I values by precluding surface-disturbing activities, infrastructure development, visual impacts, vegetation removal, weed spread, wildlife disturbance, riparian habitat damage, and habitat degradation and fragmentation.

There would be 67,000 acres of the Tozitna ACEC, 73,000 acres of the Tozitna River ACEC (less than 1 percent of the undesignated area), and 1,000 acres of the Tozitna River Subunits North and South open to fluid mineral leasing resulting in the same type of impacts as those described under Alternative A for the Tozitna River ACEC. However, 87,000 acres of the Tozitna ACEC and 19,000 acres of the Tozitna River ACEC would be subject to controlled surface use stipulations for fluid mineral leasing, which could help protect R&I values by limiting surface disturbance.

Under this alternative, the RMH core habitat would be closed to fluid mineral leasing. Therefore, 976,000 acres of the Tozitna ACEC; 9,000 acres of the Tozitna River ACEC; and 22,000 acres of the Tozitna Subunits North and South would be closed to fluid mineral leasing, which would help reduce impacts on the RMH core habitat.

Additionally, 60,000 undesignated acres of the Tozitna ACEC would overlap with areas closed to commercial timber development. Making this area unavailable for commercial timber development would help protect R&I values by precluding timber infrastructure development, surface disturbance, visual impacts, vegetation removal, weed spread, wildlife disturbance, riparian habitat damage, and habitat degradation and fragmentation.

However, 983,000 undesignated acres of the Tozitna ACEC, 78,000 undesignated acres of the Tozitna River ACEC, and 22,0000 undesignated acres of the Tozitna River Subunits North and South would be open to commercial timber development resulting in the same type of impacts as those described under Alternative A. Compared with Alternative A, Alternative C1 could result in greater impacts on R&I values, as more acres would be open to commercial timber development under Alternative A.

All 82,000 undesignated acres of the Tozitna River ACEC and all 23,000 acres of the Tozitna Subunits North and South overlap with lands with wilderness characteristics that are managed to emphasize other resource values and multiple uses while applying management restrictions to reduce impacts on wilderness characteristics. The impacts would be as described under *Accomplishment Creek – Alternative C1*.)

Alternative C1 would propose a ROW avoidance area (477,000 acres for the Tozitna ACEC, 6,000 acres for the Tozitna River ACEC, and 16,000 acres for Tozitna Subunits North and South) in the RMH core habitat, helping to protect this core habitat. Additionally, limiting OHV travel to existing routes on 640,000 acres of the Tozitna ACEC; 80,000 undesignated acres of the Tozitna River ACEC; and 8,000 undesignated acres of the Tozitna Subunits North and South would result in the same impacts as those described under Alternative A, except over a slightly larger area for the Tozitna ACEC. Additionally, limiting 403,000 acres of the Tozitna ACEC (39 percent of the undesignated area); 2,000 undesignated acres of the Tozitna River ACEC (2 percent of the undesignated area); and 15,000 undesignated acres of the Tozitna Subunits North and South (65 percent of the undesignated area) to winter OHV travel only would be more protective of R&I values. This is because no OHVs would be allowed from May 1 to June 30, resulting in reduced impacts on these values. These timing limitations for OHVs would help minimize impacts on the RMH during core calving periods.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The Tozitna ACEC (1,043,000 acres) and the Tozitna River ACEC (842,000 acres) would not be designated under this alternative. Additionally, the Tozitna River Subunits North and South would not be designated (192,000 acres).

Withdrawals would be recommended for revocation for 121,000 undesignated acres for the Tozitna ACEC; 73,000 acres for the Tozitna River ACEC; and 1,000 acres of the Tozitna River Subunits North and South ACEC.

640,000 acres would be open to mineral material sales for the Tozitna ACEC. Additionally, all 1,043,000 undesignated acres of the Tozitna ACEC (985,00 acres more than Alternative A) and all 82,000 undesignated acres of the Tozitna River ACEC would be available for locatable mineral entry and 122,000 undesignated acres of Tozitna ACEC and 73,000 acres of the Tozitna River ACEC would be open to fluid mineral leasing, and 640,000 acres of Tozitna ACEC and 80,000 acres of the Tozitna River ACEC would be open to mineral material sales. Of the acres open to locatable mineral entry for the Tozitna ACEC, 141,000 acres would be priority 1 or 2 selections. Of the acres open to locatable mineral entry for the Tozitna River ACEC, 11,000 acres would be priority 1 or 2 selections. Furthermore, 23,000 acres of the Tozitna River Subunits North and South would be available for locatable mineral entry and fluid mineral leasing and open to mineral material sales. These management actions would result in the same type of impacts as those described under Alternative A for the Tozitna ACEC (no acres would be open to locatable mineral entry or mineral material sales for the Tozitna River ACEC or Tozitna Subunits North and South under Alternative A). Of the acres open to locatable mineral entry for the Tozitna ACEC, 687,000 acres would be state-selected, segregated from mineral entry and 14,000 acres would be Native-selected, segregated from mineral entry. Of the acres open to locatable mineral entry for the Tozitna River ACEC, 47,000 acres would be state-selected, segregated from mineral entry and 14,000 acres would be Native-selected, segregated from mineral entry. Lastly, 12,000 acres open to locatable mineral entry for the Tozitna Subunits North and South ACEC would be State-selected, segregated from mineral entry.

Additionally, 983,000 undesignated acres of the Tozitna ACEC; 78,000 undesignated acres of the Tozitna River ACEC; and 22,000 undesignated acres of Tozitna River Subunits North and South would be open to

commercial timber development, which could degrade R&I values in the same manner as described under Alternative B. Compared with Alternative A, Alternative C2 could result in greater impacts on R&I values.

All 1,043,000 undesignated acres of the Tozitna ACEC and 82,000 undesignated acres of the Tozitna River ACEC would be managed according to VRM Class IV objectives. This would allow modifications to the landscape that have noticeable or dominant visual contrasts, which also may affect R&I values. Additionally, 24,000 undesignated acres of the Tozitna River Subunits North and South would be managed according to VRM Class IV objectives.

Alternative C2 would propose 403,000 acres of ROW avoidance areas for the Tozitna ACEC, 2,000 acres for Tozitna River ACEC, and 15,000 acres for the Tozitna Subunits North and South in the RMH core habitat to help protect this core habitat. Limiting OHV travel to existing routes on 640,000 acres of the Tozitna ACEC; 80,000 undesignated acres of the Tozitna River ACEC (less than 1 percent of the undesignated area); and 8,000 undesignated acres of the Tozitna Subunits North and South would result in the same impacts as those described under Alternative C1. Additionally, limiting 403,000 acres of the Tozitna ACEC (39 percent of the undesignated area); 2,000 undesignated acres of Tozitna River ACEC; and 15,000 undesignated acres of Tozitna Subunits North and South to winter OHV travel only would be more protective of R&I values. This is because no OHVs would be allowed from May 1 to June 30 resulting in reduced impacts on these values. These timing limitations for OHVs would help minimize impacts on the RMH during core calving periods.

Alternative D

The entire Tozitna ACEC (1,043,000 acres; the Tozitna River ACEC [842,000 acres] and Tozitna River Subunits North and South [192,000 acres]) would not be designated. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative C2. The exception would be that limiting OHV travel to existing routes on all 1,043,000 undesignated acres of the Tozitna ACEC; 82,000 undesignated acres of the Tozitna River ACEC; and 23,000 undesignated acres of the Tozitna Subunits North and South would result in the same type of impacts as those described under Alternative A for the Tozitna ACEC (no acres would be limited for the Tozitna River ACEC or Tozitna Subunits North and South under Alternative A).

Alternative E (Proposed Plan)

Of the Tozitna River ACEC area, 835,000 acres (80 percent of the entire potential ACEC area) would be designated to protect caribou habitat, soils, water, and crucial salmon spawning habitat. The management prescriptions identified in **Appendix J** would protect the R&I values. The remaining acres within the Tozitna ACEC, Tozitna River ACEC, and Tozitna Subunits North and South would not be designated to protect caribou habitat, water, and soils.

Special management prescriptions as described in **Appendix J** would be applied to stream order-based 100-year floodplain buffers watershed-wide (85,000 acres) to protect R&I values. Within the stream order-based 100-year floodplain buffer areas, the following special management applies: closed to mineral materials disposal, ROW avoidance, NSO for fluid mineral leasing and development, and for all BLM-authorized camps and support facilities would not be located within the confines of the ACEC, including cabins and tent frames, except for scientific purposes.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

Based on the ANVLAP EA analysis based on historic land use patterns on Native Allotments in Alaska, impacts to the R&I values from this partial revocation would result in minimal impacts on soils, water, and crucial salmon spawning habitat under Alternative E.

For areas open to locatable minerals, as per the mining regulations, ACEC designation requires development of a Plan of Operations, subject to the NEPA process, for any exploration activities, thus providing more protection of R&I values for exploration activities within the ACEC relative to lands outside the ACEC where this regulatory requirement does not apply.

Areas within 50 feet of a water body would be closed to commercial timber development, which could prevent degradation of R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative E would result in fewer impacts on R&I values. This is because no acres would be closed to commercial timber development under Alternative A. Making these acres unavailable for commercial timber development would help protect R&I values by precluding timber infrastructure development, surface disturbance, and riparian habitat damage.

Special management attention is not required to protect the entire potential Tozitna ACEC because standard or routine management prescriptions are sufficient to protect the resource or value from risks or threats of damage/degradation. The special management measures of Ray Mountains Herd core caribou range would protect the R&I values for the undesignated portion of the potential ACEC. Ray Mountain Herd would be closed to fluid mineral leasing, ROW avoidance, and closed to mineral material disposal. The R&I values of crucial salmon spawning habitat would be protected by the proposed ACEC designation and the floodplains allocations. The northern, undesignated portion of the ACEC does not have the R&I value crucial salmon spawning habitat and therefore does not need special management to protect fish R&I in this portion. The northern, undesignated portion of the ACEC has caribou habitat.

T.34 Upper Kanuti River

Alternative A (No Action)

The entire potential ACEC (50,000 acres) would not be designated. This area is likely to yield significant archaeological information and high site densities as well as a number of archaeological sites that are eligible for inclusion on the National Register of Historic Places. Additionally, the Hodzana Hills Caribou Herd, a small, nonmigratory caribou herd that inhabits the headwaters of the Upper Kanuti River, is a genetically distinct herd that contributes to the ecological diversity of the planning area. Consequently, any direct or indirect protection from management actions for other resources within this undesignated potential ACEC would help protect these threatened R&I values.

For example, 4,000 acres (8 percent of the undesignated area) would continue to overlap with the Kanuti River identified as eligible or suitable for inclusion in the NWSRS. The areas that overlap or are adjacent to these eligible or suitable segments would receive some indirect protection for R&I values from WSR management. This indirect protection likely would include protection for riparian vegetation. Additionally, limiting OHV travel to existing routes on all 50,000 undesignated acres would reduce impacts from motorized and mechanized travel in the undesignated area by limiting: surface disturbance, vegetation destruction, wildlife disturbance, and habitat fragmentation.

Additionally, all 50,000 undesignated acres would continue to be encumbered under PLO 5150, and they would be withdrawn from fluid mineral leasing. However, 26,000 acres (52 percent of the undesignated area) would continue to be available for locatable mineral entry, and 24,000 acres (48 percent of the undesignated area) would remain withdrawn for locatable mineral entry. All 50,000 undesignated acres would continue to

be open to mineral material sales. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development including disturbance to wildlife, destruction of wildlife habitat, and degradation of cultural resources and values. However, 24,000 acres (48 percent of the undesignated area) would continue to be withdrawn from locatable mineral entry, which would prohibit surface-disturbing activities associated with minerals development and protect the R&I values.

All 50,000 undesignated acres would continue to be managed according to VRM Class III objectives, which could affect the sacred or historic setting of the cultural resources within the potential ACEC by allowing surface-disturbing activities that impair this R&I value. Fewer mitigation measures would be needed to meet visual resource objectives, compared with VRM Class II.

Additionally, various restrictions, such as travel management restrictions and recreation permit limitations, would be enforced, protecting R&I values by limiting disturbance. However, allowing some development for recreational purposes and managing for ROWs in these areas could degrade R&I values.

Alternative B

The entire potential ACEC (50,000 acres) would be designated to protect cultural resources and Hodzana caribou habitat, resulting in greater protection for R&I values than under Alternative A. The management prescriptions identified in **Appendix J** would protect the R&I values.

Alternative C1

The entire potential ACEC (50,000 acres) would not be designated. PLOs would be recommended for revocation for all 50,000 undesignated acres, which could result in greater impacts than under Alternative A. All 50,000 acres would be available for locatable mineral entry and fluid mineral leasing, and they would be open to mineral material sales. This would result in the same type of impacts as those described under Alternative A, except 24,000 acres more would be available for locatable mineral entry. There would be 24,000 acres (48 percent of the undesignated area) subject to NSO stipulations for fluid mineral leasing. This would help reduce impacts on R&I values by reducing surface disturbance. Additionally, 26,000 acres available for locatable mineral entry would be top-filed.

The 50,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance including disturbance to wildlife, destruction of wildlife habitat, and degradation of cultural resources and values. Compared with Alternative A, Alternative C1 would result in the same impacts on R&I values.

Managing these 50,000 undesignated acres as VRM Class II would protect R&I values from most impacts associated with management activities with large-scale, ground-disturbing activities; however, it would allow activities that modify the landscape but have low visual contrast and do not attract attention. Compared with Alternative A, which manages these acres according to VRM Class III, Alternative C1 would provide more protection for R&I values.

Limiting OHV travel to existing routes on all 50,000 undesignated acres would result in the same impacts as those described under Alternative A.

Of the undesignated area, 24,000 acres (48 percent) overlap with lands with wilderness characteristics that would be managed to maintain wilderness characteristics. Impacts would be as described under *Hogatza River – Alternative C1.* Additionally, 26,000 acres (52 percent) overlap with lands with wilderness characteristics that are managed to emphasize other resource values and multiple uses while applying management

restrictions to reduce impacts on wilderness characteristics. The impacts would be as described under *Accomplishment Creek – Alternative C1*. Compared with Alternative A, which does not designate any acres as lands with wilderness characteristics, Alternative C1 would provide more protection for R&I values from this management action.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (50,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative C1, except that 50,000 acres overlap with lands with wilderness characteristics that are managed to emphasize other resource values and multiple uses while applying management restrictions to reduce impacts on wilderness characteristics. The impacts would be as described under *Accomplishment Creek – Alternative C1*. This would result in less protections for R&I values. Additionally, there would be no acres for fluid mineral leasing subject to NSO stipulations.

The entire undesignated area would continue to be managed according to VRM Class III or VRM Class IV objectives, resulting in the same type of impacts as those described under Alternative A.

Alternative D

The entire potential ACEC (50,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C2.

Alternative E (Proposed Plan)

The entire potential ACEC (50,000 acres) would not be designated. Just under half of the potential ACEC (24,000 acres) is withdrawn from locatable mineral entry and the entire potential ACEC is withdrawn from fluid minerals under PLO 5150. This would protect the R&I values on these acres. The remaining 26,000 acres that are open to locatable mineral entry could experience impacts from this activity.

The 50,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance including disturbance to wildlife, destruction of wildlife habitat, and degradation of cultural resources and values. Compared with Alternative A, Alternative E would result in the same impacts on R&I values.

The entire undesignated area would continue to be managed according to VRM Class III or VRM Class IV objectives, resulting in the same type of impacts as those described under Alternative A.

Limiting OHV travel to existing routes on all 50,000 undesignated acres would result in the same impacts as those described under Alternative A.

Special management attention is not required to protect the potential Upper Kanutii River ACEC because standard or routine management prescriptions are sufficient to protect the resource or value from risks or threats of damage/degradation. Routine management measures to protect hot springs would protect the R&I values. In hot springs, Alternative E, the BLM would prohibit the following within 160-acre area surrounding hot springs: mineral materials disposal; nonenergy solid mineral leasing and development, surface-disturbing activities, surface occupancy for fluid minerals, new ROWs in the hot spring and new ROW would be avoided for the 160-acre area surrounding the hot spring, and limit travel to existing trails. These allocations would protect the R&I values of the ACEC/RNA.

T.35 UPPER TEEDRIINJIK (CHANDALAR) RIVER

Alternative A (No Action)

The entire potential ACEC (295,000 acres) would not be designated. Currently, there are no threats to the R&I values. Any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help protect the R&I values.

All 295,000 acres would continue to be encumbered under withdrawals, and they would continue to be withdrawn from locatable mineral entry and fluid mineral leasing. This would prohibit surface-disturbing activities associated with minerals development, helping to protect R&I values. However, these acres would be open to mineral material sales, which could degrade R&I values by allowing for access to mineral materials.

These 295,000 undesignated acres would continue to be managed according to VRM Class III objectives, which could lead to impacts on R&I values by allowing surface-disturbing activities. Fewer mitigation measures would be needed to meet visual resource objectives, compared with VRM Class II.

Limiting OHV travel to existing routes on these 295,000 acres would reduce impacts from motorized and mechanized travel in the undesignated area by limiting surface disturbance and vegetation destruction.

Alternative B

The entire potential ACEC (295,000 acres) would be designated to protect crucial habitat for Chinook salmon, and summer and fall habitat for: chum salmon, coho salmon, whitefish, and cisco. Of the alternatives, this would result in the greatest amount of protection for R&I values. The management prescriptions identified in **Appendix J** would protect the R&I values.

Alternative C1

The entire potential ACEC (295,000 acres) would not be designated. Withdrawals would be recommended for revocation for all 295,000 acres, and these 295,000 acres would be available for locatable mineral entry and fluid mineral leasing. They also would be open to mineral material sales. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development including destruction of soils and fish habitat; erosion that could degrade aquatic habitats; and contamination of surface water from wastewater spills and runoff. Compared with Alternative A, Alternative C1 would result in greater degradation of R&I values from these management actions. However, 223,000 acres (76 percent of the undesignated area) would be subject to NSO stipulations; 74,000 acres (25 percent of the undesignated area) would be subject to controlled surface use stipulations for fluid mineral leasing, which would reduce impacts on R&I values by limiting surface disturbance. Of the acres open to locatable mineral entry, 80,000 acres would be State-selected, segregated from mineral entry.

There would be 281,0000 undesignated acres (95 percent of the undesignated area) open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative C1 would result in fewer impacts on R&I values. This is because more acres would be open to commercial timber development under Alternative A. Only 5 percent (15,000 acres) of the undesignated area would overlap with areas closed to commercial timber development, which would help protect R&I values by precluding timber infrastructure development, surface disturbance, and riparian habitat damage.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (295,000 acres) would not be designated. Withdrawals would be recommended for revocation on all 295,000 acres. These acres would be available for locatable mineral entry and fluid

mineral leasing, and they would be open to mineral material sales. This would result in the same impacts as those described under Alternative C1, except no acres would be subject to NSO stipulations for fluid mineral leasing. Of the acres open to locatable mineral entry, 80,000 acres would be State-selected, segregated from mineral entry.

Of the total undesignated area, 281,000 acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative C2 would result in fewer impacts on R&I values, as more acres would be open to commercial timber development under Alternative A (294,000).

Alternative D

The entire potential ACEC (295,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C2.

Alternative E (Proposed Plan)

The entire potential ACEC (294,000 acres) would be designated to protect crucial habitat for Chinook salmon, and summer and fall habitat for: chum salmon, coho salmon, whitefish, and cisco. Special management prescriptions as described in **Appendix J** would be applied to stream order-based 100-year floodplain buffers watershed-wide (31,000 acres) to protect R&I values. Within the stream order-based 100-year floodplain buffer areas, the following special management applies: closed to mineral materials disposal, ROW avoidance, NSO for fluid mineral leasing and development, and for all BLM-authorized camps and support facilities would not be located within the confines of the ACEC, including cabins and tent frames, except for scientific purposes.

Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. Actions that Alaska Native Vietnam-era veterans may take on their allotment include building houses or hunting lodges or hunting and fishing.

Based on the ANVLAP EA analysis, it is anticipated that this partial revocation would result in minimal impacts to fish and fish habitat under Alternative E, including the crucial habitat for Chinook salmon, and summer and fall habitat for chum salmon, coho salmon, whitefish, and cisco R&I values for this ACEC.

For areas open to locatable minerals, as per the mining regulations, ACEC designation requires development of a Plan of Operations, subject to the NEPA process, for any exploration activities, thus providing more protection of R&I values for exploration activities within the ACEC relative to lands outside the ACEC where this regulatory requirement does not apply.

Areas within 50 feet of a water body would be closed to commercial timber development, which could prevent degradation of R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative E would result in fewer impacts on R&I values. This is because no acres would be closed to commercial timber development under Alternative A. Making these acres unavailable for commercial timber development would help protect R&I values by precluding timber infrastructure development, surface disturbance, and riparian habitat damage.

T.36 WEST FORK ATIGUN RIVER

Alternative A (No Action)

Under this alternative, 26 percent of the entire potential ACEC (9,000 acres of 34,000 total acres) would continue to be designated to protect crucial Dall sheep lambing areas and mineral licks. The management prescriptions identified in **Appendix J** would protect the R&I values within this designated portion of the ACEC.

A significant number of hunters use the Dalton Highway for easy access to hunt Dall Sheep. Additionally, this potential ACEC contains natural mineral licks, which provide essential minerals to ungulates in the area, and they are critical for maintaining healthy Dall sheep populations in the vicinity. Therefore, any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help protect the R&I values.

Limiting OHV travel to existing routes on 25,000 undesignated acres would reduce impacts from motorized and mechanized travel by limiting surface disturbance, wildlife disturbance, and habitat fragmentation.

25,000 undesignated acres (73 percent) are encumbered by PLO 5150, which withdraws the area from fluid mineral leasing. This would reduce the degradation to R&I values by restricting surface disturbance and infrastructure development. However, 32 percent of the undesignated area (11,000 acres) would continue to be available for locatable mineral entry, while 25,000 undesignated acres would continue to be open to mineral material sales. Consequently, the R&I values in this area could be degraded due to impacts from infrastructure development and surface disturbance associated with mineral development, including destruction of soils and wildlife habitat, as well as wildlife disturbance. However, 14,000 acres (56 percent of the undesignated area) would continue to be withdrawn from locatable mineral entry, which would prohibit surface-disturbing activities associated with minerals development and help protect R&I values.

Allowing some development for recreational purposes and managing for ROWs could degrade R&I values by causing some surface disturbance and damage to wildlife habitat.

Alternative B

Under this alternative, 100 percent (34,000 acres) of the entire potential ACEC would be designated to protect priority Dall sheep habitat, including mineral licks, resulting in more protections for R&I values than under Alternative A. The management prescriptions identified in **Appendix J** would protect the R&I values within this designated portion of the ACEC.

Alternative C1

The entire potential ACEC (34,000 acres) would not be designated. PLOs would be recommended for revocation for 21,000 acres (62 percent of the undesignated area). Additionally, 19,000 acres (56 percent of the undesignated area) would be available for locatable mineral entry (8,000 acres more than Alternative A) and fluid mineral leasing and 33,000 acres (99 percent of undesignated area) would be open to mineral material sales (9,000 acres more than Alternative A). Of the acres open for locatable mineral entry, 2,000 acres would be State-selected, segregated from mineral entry. Of the acres available for locatable mineral entry, 17,000 acres would be top-filed. However, 21,000 acres (62 percent of the undesignated area) would be retained under PLOs (3,000 acres less than Alternative A); 14,000 acres would be withdrawn from locatable mineral entry (1,000 acres more than Alternative A); and 14,000 acres for fluid mineral leasing (10,000 fewer acres than Alternative A). All these management actions would prohibit surface-disturbing activities associated with minerals development and protect R&I values.

The 34,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and wildlife habitat, as well as wildlife disturbance. Compared with Alternative A, Alternative C1 would result in greater impacts on R&I values, as no acres would be open to commercial timber development under Alternative A.

Of the undesignated acres, 32,000 acres (94 percent) overlap with the DSSA, resulting in the same type of impacts as those described under Alternative A, except over a larger area (9,000 acres more).

Limiting OHV travel to existing routes on all 34,000 undesignated acres would result in the same type of impacts as those described under Alternative A, except over a larger area (9,000 acres more).

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (34,000 acres) would not be designated. PLOs would be recommended for revocation for all 34,000 undesignated acres. These acres would be available for locatable mineral entry and fluid mineral leasing, and they would be open to mineral material sales. This would result in the same type of impacts as those described under Alternative A. However, compared with Alternative A, Alternative C2 would result in more impacts on R&I values for these management actions, as 23,000 acres more would be available for locatable mineral entry and 9,000 acres more would be available for mineral material sales. Alternative A does not open any acres to fluid mineral leasing, but instead it withdraws 25,000 acres from fluid mineral leasing. Of the acres open to locatable mineral entry, 2,000 acres would be State-selected, segregated from mineral entry.

Of the undesignated area, 14,000 acres (41 percent) would overlap with utility corridors. Construction within utility corridors could degrade R&I values due to impacts from surface disturbance and infrastructure associated with this development, including destruction of soils and damage to wildlife habitat. Compared with Alternative A, this management action would result in more impacts on R&I values. This is because Alternative A does not overlap with any utility corridor areas.

The 34,000 undesignated acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and wildlife habitat, as well as wildlife disturbance. Compared with Alternative A, Alternative C2 would result in greater impacts on R&I values, as fewer acres would be open to commercial timber development under Alternative A.

Lastly, limiting OHV travel to existing routes on all 34,000 undesignated acres would result in the same type of impacts as those described under Alternative A, except over a larger area (9,000 acres more).

Alternative D

The entire potential ACEC (34,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C2.

Alternative E (Proposed Plan)

Under this alternative, 100 percent (34,000 acres) of the entire potential ACEC would be designated to protect priority Dall sheep habitat, including mineral licks, resulting in more protections for R&I values than under Alternative A. Alternative E would recommend that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans. This ACEC is in PLO 5150 and so would not be affected by this action.

The management prescriptions identified in **Appendix J** would protect the R&I values within this designated portion of the ACEC.

T.37 WHEELER CREEK

Alternative A (No Action)

The entire potential ACEC (145,000 acres) would not be designated. Currently, there are no threats to the R&I values. Any direct or indirect protection from management actions for other resources within the undesignated potential ACEC could help protect the R&I values. For example, these 145,000 acres would continue to be encumbered under withdrawals, and they would continue to be withdrawn from locatable mineral entry and fluid mineral leasing. This would prohibit surface-disturbing activities associated with minerals development, helping to protect R&I values. However, these acres would be open to mineral material sales, which could potentially diminish R&I values.

Limiting OHV travel to existing routes on all 145,000 undesignated acres would continue to reduce impacts from motorized and mechanized travel on R&I values by limiting surface disturbance.

Alternative B

The entire potential ACEC (145,000 acres) would be designated to protect crucial chum salmon summer spawning habitat, resulting in the greatest amount of protection for R&I values of the alternatives. The management prescriptions identified in **Appendix J** would protect the R&I values.

Alternative C1

The entire potential ACEC (145,000 acres) would not be designated. Withdrawals would be recommended for revocation for these 145,000 acres. They would be available for locatable mineral entry and fluid mineral leasing, and they would be open to mineral material sales. Of the acres open to locatable mineral entry, 115,000 acres would be state-selected, segregated from mineral entry. Compared with Alternative A, which retains these acres under lands with a withdrawal and they are closed to locatable mineral entry, this alternative would result in greater degradation of R&I values for this management action. This is due to impacts from infrastructure development and surface disturbance associated with mineral development including destruction of soils and fish habitat; erosion that could degrade aquatic habitats; and contamination of surface water from wastewater spills and runoff. However, 80,000 acres (55 percent of the undesignated area) would be subject to controlled surface use stipulations, which would reduce impacts on R&I values by limiting surface disturbance.

There would be 124,000 undesignated acres (86 percent of the undesignated area) open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative C1 would result in fewer impacts on R&I values, as more acres would be open to commercial timber development under Alternative A. There would be 21,000 undesignated acres (14 percent of the undesignated area) that would overlap with areas closed to commercial timber development, which would help protect R&I values by precluding: timber infrastructure development, surface disturbance, vegetation removal, weed spread, and riparian habitat damage caused by erosion.

Limiting OHV travel to existing routes on 145,000 acres would result in the same impacts as those described under Alternative A.

The undesignated area overlaps with 145,000 acres of lands with wilderness characteristics that are managed to emphasize other resource values and multiple uses while applying management restrictions to reduce impacts on wilderness characteristics. The impacts would be described under *Accomplishment Creek – Alternative C1.)* Compared with Alternative A, Alternative C1 would result in the same impacts on R&I.

Alternative C2 (Preferred Alternative in the Draft RMP/EIS)

The entire potential ACEC (145,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be similar to those described under Alternative C1, except that no acres would overlap with lands with wilderness characteristics. Additionally, there would be no acres for fluid mineral leasing subject to controlled surface use stipulations.

Of the total undesignated area, 124,000 acres would be open to commercial timber development, which could degrade R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative C2 would result in fewer impacts on R&I values, as more acres would be open to commercial timber development under Alternative A.

Alternative D

The entire potential ACEC (145,000 acres) would not be designated. Management actions for other resources and impacts on R&I values would be the same as those described under Alternative C2.

Alternative E (Proposed Plan)

The entire potential ACEC (145,000 acres) would be designated to protect crucial chum salmon summer spawning habitat, resulting in the greatest amount of protection for R&I values of the alternatives. Special management prescriptions as described in **Appendix J** would be applied to stream order-based 100-year floodplain buffers watershed-wide (16,000 acres) to protect R&I values. Within the stream order-based 100-year floodplain buffer areas, the following special management applies: closed to mineral materials disposal, ROW avoidance, NSO for fluid mineral leasing and development, and for all BLM-authorized camps and support facilities would not be located within the confines of the ACEC, including cabins and tent frames, except for scientific purposes.

Based on the ANVLAP EA analysis, it is anticipated that this partial revocation would result in minimal impacts to fish and fish habitat under Alternative E, including the crucial chum salmon summer spawning habitat R&I values for this ACEC.

For areas open to locatable minerals, as per the mining regulations, ACEC designation requires development of a Plan of Operations, subject to the NEPA process, for any exploration activities, thus providing more protection of R&I values for exploration activities within the ACEC relative to lands outside the ACEC where this regulatory requirement does not apply.

Areas within 50 feet of a water body would be closed to commercial timber development, which could prevent degradation of R&I values due to surface disturbance, including destruction of soils and fish habitat and erosion that could degrade aquatic habitats. Compared with Alternative A, Alternative E would result in fewer impacts on R&I values. This is because no acres would be closed to commercial timber development under Alternative A. Making these acres unavailable for commercial timber development would help protect R&I values by precluding timber infrastructure development, surface disturbance, and riparian habitat damage.

T.38 CONCLUSION

In general, under all alternatives management actions that protect resources would help maintain or improve the R&I values within undesignated ACECs; management actions that create the potential for resource degradation could diminish R&I values within undesignated ACECs. Designating ACECs would protect the R&I values in those areas, while not designating ACECs could degrade R&I values. For some ACECs, routine management such as hot springs withdrawal, ROW avoidance, or caribou core range protections can prevent impacts to R&I. Any potential projects would include mitigation measures to protect R&I values.

Protection of R&I values across all ACECs would be greatest under Alternative B. This is because at least some portion of each of the 31 potential ACECs would be designated, and it would receive direct protection via ACEC-specific management actions. The potential for degradation of R&I values would be greatest under Alternative D, followed by Alternative C2. This is because no potential ACECs would be designated under Alternative D, and only one ACEC/RNA would be designated under Alternative C2. Alternative A would provide greater protection for R&I values than Alternatives C1 and C2, given that more potential ACECs would be designated, and they would receive more direct protection via ACEC-specific management actions. Alternative E provides protection to R&I values where it is most needed and where threats are the highest.

T.39 Cumulative Impacts

The cumulative impacts analysis area for ACECs is the Central Yukon RMP decision area. Past, present, and reasonably foreseeable future actions and conditions within the cumulative impact analysis area that have affected and would likely continue to affect ACECs are mining, oil and gas development, transportation and infrastructure construction and development, utility corridor and ROW development, increased tourism and recreation, increased access to remote areas, wildland fires and fire suppression, flooding, and soil and permafrost changes. The direct and indirect impacts of the alternatives described above would cumulatively contribute to the impacts of these reasonably foreseeable future actions. However, the BLM would adaptively manage to protect R&I values and minimize impacts on these values, where applicable and feasible.

Cumulative impacts on R&I values also could result from non-BLM actions and decisions on lands adjacent to the potential ACECs. Development and growth throughout the planning area could, over time, encroach on these areas. Activities such as unauthorized off-route travel and increased noise, air, and light pollution could degrade R&I values.

Other impacts include species displacement, habitat fragmentation, and visual landscape changes that could affect R&I values. Visual disturbances, including any structures or resource developments noticeable in the viewshed of ACECs with cultural values, can affect the cultural setting. Impacts would be greater where recreation areas or development were next to an ACEC. Additionally, the effects of climate change, described under the affected environment above, could influence the rate or degree of the potential cumulative impacts.

The elimination or great reduction of ACEC designations as seen under Alternatives C1, C2, and D, specifically the lack of associated management actions intended to protect R&I values, would provide less overlapping protection to a variety of resources (see Sections 3.2.2 Soils, 3.2.3 Water Resources, 3.2.5 Wetland resources, and 3.2.6 Fish and Aquatic Species). This would likely increase the cumulative impacts on these resources over what would be experienced under Alternative A. These cumulative effects related to ACEC designations would be least under Alternative ACEC B and E, in that order.

T.40 References

BLM (U.S. Department of the Interior, Bureau of Land Management). 1988. BLM Manual 1613—Areas of Critical Environmental Concern. Rel. 1-1541. BLM, Washington, D.C. September 29, 1988.

_____. 2015. Central Yukon Resource Management Plan Areas of Critical Environmental Concern. Report on the Application and Relevance Criteria. ACEC Final Report. Fairbanks, Alaska. https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf

BLM GIS (Bureau of Land Management geographic information systems). 2017. GIS data used in the Central Yukon RMP alternatives, affected environment, and impact analysis. Last edit date June 2020. Fairbanks, Alaska.

Markon, C., S. Gray, M. Berman, L. Eerkes-Medrano, T. Hennessy, H. Huntington, J. Littell, et al. 2018. "2018: Alaska." In "Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II" (Reidmiller, D.R., C.W. Avery, D. R. Easterling, K.E. Kunkel, K.L. M. Lewis, T.K. Maycock, and B. C. Stewart, editors). U.S. Global Change Research Program, Washington, D.C. pp. 1185–1241. DOI: 10.7930/NCA4. 2018.CH26

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Appendix U

Public Comments and BLM Responses

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Appendix U. Public Comments and BLM Responses

This volume presents comments the Bureau of Land Management (BLM) received on the Central Yukon Resource Management Plan (RMP) Draft Environmental Impact Statement (EIS). It also includes a description of the public comment process, how the BLM considered all comments, and responses to all substantive comments.

U.1 Comment Analysis Process

The National Environmental Policy Act (NEPA) requires that all substantive comments received before reaching a decision must be considered to the extent feasible, and that agencies must respond to all substantive written comments submitted during the public comment period for an EIS (40 CFR 1503.4). Comments must be in writing (including paper or electronic format or a court reporter's transcript taken at a formal public meeting or hearing), substantive, and timely, in order to merit a written response.

Although the BLM diligently considered each comment letter, the comment analysis process involved determining if a comment was substantive or non-substantive. In performing this analysis, the BLM relied on Section 6.9.2, Comments, in the BLM NEPA Handbook H-1790-1 to determine what constituted a substantive comment.

A substantive comment does one or more of the following:

- Questions, with a reasonable basis, the accuracy of the information or analysis in the EIS
- Questions, with a reasonable basis, the adequacy of the information or analysis in the EIS
- Presents reasonable alternatives other than those in the Draft EIS that meet the purpose of and need for the proposed action and addresses significant issues
- Questions, with a reasonable basis, the merits of an alternative or alternatives
- Causes changes in or revisions to the proposed action
- Questions, with a reasonable basis, the adequacy of the planning process itself

Additionally, the BLM's NEPA handbook identifies the following types of substantive comments:

- Comments on the Adequacy of the Analysis—Comments that express a professional disagreement with the conclusions of the analysis or assert that the analysis is inadequate are considered substantive; they may or may not lead to changes in the Final EIS. Interpretations of analyses should be based on professional expertise. Where there is disagreement within a professional discipline, a careful review of the various interpretations is warranted. In some cases, public comments may necessitate a reevaluation of analytical conclusions. If, after reevaluation, the BLM Authorized Officer responsible for preparing the EIS does not think that a change is warranted, the response should provide the rationale for that conclusion.
- Comments That Identify New Impacts, Alternatives, or Mitigation Measures—Public comments on a Draft EIS that identify impacts, alternatives, or mitigation measures that the draft did not address are considered substantive. This type of comment requires the BLM Authorized Officer to determine if it warrants further consideration; if so, he or she must determine if the new impacts, new

alternatives, or new mitigation measures should be analyzed in the Final EIS, in a supplement to the Draft EIS, or in a completely revised and recirculated Draft EIS.

- Disagreements with Significance Determinations—Comments that directly or indirectly question, with a reasonable basis, determinations on the significance or severity of impacts are considered substantive. A reevaluation of these determinations may be warranted and may lead to changes in the Final EIS. If, after reevaluation, the BLM Authorized Officer does not think that a change is warranted, the BLM's response should provide the rationale for that conclusion.

Comments that failed to meet the above description were considered non-substantive.

The BLM published the Draft EIS on December 11, 2020. The public comment period to receive comments on the Draft EIS was originally scheduled to end on March 11, 2021, but was extended through June 9, 2021. The BLM received written comments by mail, email, the online comment form via ePlanning, and verbal testimony at public meetings.

The BLM held virtual public meetings during the Draft EIS comment period. In order to capture all relevant comments, court reporters were made available in all meeting locations for attendees to provide verbal testimony if they desired. A list of the meetings and meeting dates are provided below.

- January 26, 2021: General Public Meeting
- January 27, 2021: General Public Meeting
- January 28, 2021: This meeting prioritized soliciting comments and an ANILCA Section 810 hearing from the following communities: Coldfoot, Wiseman, Bettles, Evansville, Anaktuvuk Pass, Alatna, and Allakaket
- February 2, 2021: This meeting prioritized soliciting comments and an ANILCA Section 810 hearing from the following communities: Coldfoot, Wiseman, Bettles, Evansville, Anaktuvuk Pass, Alatna, and Allakaket
- February 3, 2021: This meeting prioritized soliciting comments from the following communities: Nulato, Koyukuk, Ruby, and Galena/Louden Village
- February 4, 2021: This meeting prioritized soliciting comments from the following communities: Tanana, Rampart, Stevens Village, and Venetie/Arctic Village
- February 9, 2021: This meeting prioritized soliciting comments and an ANILCA 810 Subsistence Hearing for the communities of: Coldfoot, Wiseman, Bettles, Evansville, Anaktuvuk Pass, Alatna, and Allakaket

Comments received covered a wide spectrum of thoughts, opinions, ideas, and concerns. The BLM recognizes that commenters invested considerable time and effort to submit comments on the Draft EIS. The BLM developed a comment analysis method to ensure that all comments were considered, as directed by NEPA regulations. This systematic process ensured the BLM tracked and considered all substantive comments.

On receipt, each comment letter was assigned an identification number and logged into a database that allowed the BLM to organize, categorize, and respond. The BLM coded substantive comments from each letter to appropriate categories, based on content, and the link to the commenter was retained. The categories generally follow the sections presented in the Draft EIS, though some related to the planning process or editorial concerns.

The BLM grouped comments similar to each other together and prepared one response for each group of similar comments. The responses were crafted to respond to the comments and to note if a change to the EIS was warranted.

The BLM received a total of 40,324 comment letter submissions; 181 of these were considered unique submissions, and 40,143 were part of form letter campaigns. Many comments received throughout the comment analysis process expressed personal opinions or preferences, had little relevance to the adequacy or accuracy of the Draft EIS, or represented commentary on management actions that are outside the scope of the EIS. These commenters did not provide specific information to assist the BLM in making a change to the existing action alternatives, did not suggest new alternatives, and did not take issue with methods used in the Draft EIS; the BLM did not address these comments further in this document.

The BLM read, analyzed, and considered all comments of a personal or philosophical nature and all opinions, feelings, and preferences for one element or one alternative over another. Because such comments were not substantive, the BLM did not respond to them. It is also important to note that, while the BLM reviewed and considered all comments, none were counted as votes. The NEPA public comment period is neither an election nor does it result in a representative sampling of the population. Therefore, public comments are not appropriate to be used as a democratic decision-making tool or as a scientific sampling mechanism.

Subject matter experts reviewed comments that recommended additional studies, data, or scientific literature to be incorporated into the analysis; new information and citations were incorporated into the Final EIS as appropriate. Comments citing editorial changes to the document were reviewed and incorporated. The Final EIS has been technically edited and revised to fix typos, missing references, definitions, and acronyms and provides other clarifications as needed.

U.1.1 Letter Campaigns

Several organizations and groups held standardized letter campaigns to submit comments during the public comment period for the Draft EIS. Through this process, their constituents were able to submit the standard letter or a modified version of the letter indicating support for the group's position on the BLM management actions. Individuals who submitted a modified standard letter generally added new comments or information to the letter or edited it to reflect their main concerns. The BLM received 40,143 form letters from 6 separate campaign letters, most of which were identical to the master letter. Modified letters with unique substantive comments were given their own submission number and were coded appropriately.

U.1.2 Comments by Category

The BLM received most correspondence via email comments submitted through the project email or to the BLM project manager during the public comment period. The following table summarizes the distribution of comments by category. These categories were used to group similar comments while preparing responses to substantive comments submitted to BLM during public comment period.

Table U-1
Substantive Comments by Category

Comment Code Name	Number of Comments
Wildlife	171
Areas of Critical Environmental Concern	107
PLO 5150	87

Comment Code Name	Number of Comments
Range of Alternatives	60
Subsistence	58
Government-to-Government Consultation	53
Fish and Aquatic Species	36
Wild and Scenic Rivers	35
Energy and Minerals	27
Vegetation Communities and Plants	26
Wilderness Characteristics	25
Water Resources	22
Recreation and Visitor Services	18
Public Outreach	18
Air Quality and Climate	18
Editorial Comments (grammar and formatting updates)	16
Soil Resources	16
Locatable minerals	15
ANILCA	14
FLPMA	14
Wetland Resources	13
Social and Economic Conditions	12
Environmental Justice	11
Cultural Resources	11
Consistency with other plans/policies	10
Fluid leasables	8
Methodology for Impacts Analysis	8
Lands and Realty and Utility Corridor	7
Travel Management	6
GIS data and analysis	5
ANCSA 17(d)(1) withdrawals	5
Cooperating Agency relationships	5
Requires detailed review	4
Visual Resources	4
NEPA	4
Mineral materials	3
Best available information-baseline data	3
Wildland Fire Ecology and Management	3
Wilderness Study Area (CAMA)	2
Solid leasables	1
Purpose and Need	1

Comment Code Name	Number of Comments
Resources	1
Paleontological Resources	1
Total	**964**

U.2 How to Read This Volume

The BLM assigned a letter number to every comment letter received during the Draft EIS public comment period. The following tables contain all substantive comments with the BLM's responses; they are organized by the category that comments regarded. Commenter names and applicable organization or agency are provided for letter submissions that did not request that their information be withheld. Complete transcripts of the virtual public meetings can be accessed at the project website here online: https://eplanning.blm.gov/eplanning-ui/project/35315/530.

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Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	7	Air Quality and Climate	208.0100.00	Portions of the Fairbanks North Star Borough, including the City of Fairbanks, the City of North Pole, and Fort Wainwright, are in a designated, Federal non-attainment area for exceeding the National Ambient Air Quality Standard (NAAQS) for PM2.5 (fine particulate matter that is 2.5 micrometers in diameter or smaller) and a maintenance area for carbon monoxide (CO). Local sources, such as wood stoves, distillate oil, industrial operations and mobile emissions contribute to PM2.5 standard violations during stable weather events associated with extreme strong temperature inversions. We appreciate that the Draft EIS discloses the existing PM2.5 concerns in the Fairbanks area, and that a potential means to protect air quality by restricting activity that would contribute PM2.5 in the nonattainment area during the winter season is considered under Alternative B. Since the Fairbanks North Star Borough area is designated as a Serious non-attainment area for 24-hour PM2.5 and a maintenance area for CO, the Clean Air Act requires a general conformity analysis be conducted for any project emissions occurring in an area designated as nonattainment or maintenance from the NAAQs. As part of the analysis, a determination should be made that the emissions (either direct or indirect) from a federal action will not exceed a de minimus threshold level (measured in tons per year) for the criteria pollutant of concern. If the determination indicates that the proposed project could contribute to the exceedance of the de minimus level, then a general conformity analysis is required to document how the federal action will affect implementation of the Alaska State Implementation Plan to reach attainment for PM2.5 or the CO Maintenance Plan. Recommendations for the FEIS: * Describe the general conformity requirements that would be applicable to future projects within the non-attainment and maintenance area; and * Modify the proposed air quality actions under alternative B, C1, C2, and D to include compliance with general conformity requirements for PM2.5 and CO. For example, for Alternative C1/C2/D we recommend the following edit (modified text in bold): "activities would be authorized so long as they meet the PM2.5 and CO standards and comply with general conformity requirements within the Fairbanks North Star Borough nonattainment/maintenance area."	Table 2-26 has been updated in the Proposed RMP/Final EIS to reflect the need to demonstrate conformity compliance for actions occurring in nonattainment/ maintenance areas. Section 3.2.1 describes conformity requirements in nonattainment/maintenance areas.
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	8	Air Quality and Climate	208.0100.00	The Draft EIS discusses potential types of air emissions likely to be generated from construction and earth moving activities associated with potential locatable mineral development. Emissions described include particulate matter released during blasting, excavating, loading, and hauling, and combustion emissions from equipment operation, including criteria pollutants, hazardous air pollutants, and greenhouse gases. We note that ore processing may also result in hazardous air pollutant emissions. In addition, fugitive dust may contain metals, which are a deposition concern. Recommendations for the FEIS: * Disclose additional potential air pollutant emissions associated with locatable mineral development, including ore processing emissions and metals contained in fugitive dust; and * If available, include an example emissions inventory for a representative mining project.	As described in the RFD associated with the Draft RMP/EIS, most locatable minerals permits have been small in scale, generally limited to 20-acre tracts (Draft RMP/EIS, Section 3.2.1). No representative emissions inventory has been added due to the varied size and project specificity of potential future plans of operation for such projects.
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	9	Air Quality and Climate	208.0100.00	We support the inclusion of Standard Operating Procedure AIR-2, which defines requirements for air quality analysis and mitigation for future actions proposed in the planning area "[t]o prevent degradation of the lands and protect health." We note that SOP AIR-2 is similar to Required Operating Procedure A-7 from the National Petroleum Reserve in Alaska Integrated Activity Plan, but it does not include all of the components from ROP A-7. In particular, elements regarding potential baseline monitoring, emissions inventory preparation, and emissions reduction plan development are not included. We appreciate the addition of element d) in SOP AIR-2, which outlines potential future monitoring requirements during operations. Recommendations for the FEIS: Incorporate additional elements from NPR-A IAP ROP A-7 regarding baseline monitoring, emissions inventory preparation, and emissions reduction plan development. Modify text as appropriate to acknowledge the additional resource uses considered in this planning area as compared to the NPR-A (e.g., locatable minerals development).	Fewer elements from ROP A-7 have been included in SOP AIR-2 due the differences in the reasonably foreseeable development scenario for the Central Yukon Field Office planning area compared with the NPR-A planning area. The ROP for the NPR-A focused on air quality protections related to future oil and gas development, while SOP AIR-2 of this RMP/EIS focuses on air quality protections from material and locatable minerals development based on the RFD included as **Appendix N** of the Draft RMP/EIS.
Mayo	Gail	Arctic Audubon Society	None	124	2	Air Quality and Climate	208.0100.00	CLIMATE CHANGE. The Central Yukon area has to date seen very rapid warming, permafrost melt and habitat changes. Landscape/habitat protection through formal means such as ACEC, RNAs and management classifications that limit disturbances (mining, roads, ORVs) are clearly warranted. Since there is no reliable way to see into the future we recommend strong conservation measures be built into resource management guidelines.	The range of alternatives includes conservation-oriented actions that are analyzed under a cumulative case to include potential changes due to development and climate change.
Gestring	Bonnie	Earthworks	None	146	12	Air Quality and Climate	208.0100.00	Increased risk to mining and oil and gas infrastructure, resulting in increased potential for spills of hazardous materials. The DEIS included some of the findings from the Fourth National Climate Assessment, but it misses some of the report's other key findings, such as the increased risk to mining and oil and gas infrastructure. According to the report: "Permafrost degradation impacts society in both tangible and intangible ways, including decreased bearing capacities of building and pipeline foundations, damage to road surfaces, deterioration of reservoirs and impoundments that rely on permafrost for wastewater containment, reduced operation of ice and snow roads in winter, and damage to linear infrastructure (such as roads and power lines) from landslides. As permafrost thaws, the ground sinks (known as subsidence), causing damage to buildings, roads, and other infrastructure; these impacts to structures and facilities are likely to increase in the future." "In Alaska, thawing of permafrost is responsible for severe damage to roads, buildings, and pipelines that will be costly to replace, especially in remote parts of Alaska. Alaska oil and gas operations are vulnerable to thawing permafrost, sea level rise, and increased coastal exposure due to declining sea ice; however, a longer ice-free season may enhance offshore energy operations and transport. These impacts are expected to grow with continued warming." (NCA4, p. 41) The increased risk to infrastructure, increases the potential for spills and other releases of harmful materials, with an increased potential for harm to water quality, soils, subsistence resources, wildlife and other uses and resources. The track record of metal mines in Alaska demonstrate that water quality impacts are already commonly occurring at modern operating mines, where adaptive management practices and existing laws and regulations are applied.7 7 Earthworks et. al., "Alaska Metal Mines, "The track record of impacts to land and water from the failure to capture and treat mine pollution." March 2020. https://www.earthworks.org/cms/assets/uploads/2020/03/AK-MINE-POLLUTION-REPORT-2020.pdf	The various effects related to a thawing permafrost are noted. Locatable mineral development proposals are actions that are evaluated at a project-specific level. Plans of operation for projects on BLM-managed lands are required to undergo NEPA analysis, including evaluation of climate-related effects, as well as all applicable federal, state, and local permitting.
Gestring	Bonnie	Earthworks	None	146	13	Air Quality and Climate	208.0100.00	Other recent research also demonstrates that current permitting processes often significantly underestimate the number of spills from mining and oil and gas operations.8 For example, Lubetkin (2020) found that the permitting process for the Pogo Mine severely underestimated the number of predicted spills of hazardous materials.9 Climate change increases the risk for these types of ongoing impacts. 8 Susan C. Lubetkin, "The tip of the iceberg: Three case studies of sill risk assessments used in environmental impact statements," Marine Pollution Bulletin 152 (2020) 110613. 9 Susan C. Lubetkin, "Review of the Transportation Corridor risks of Hazardous Material Spills in the Proposed Stibnite Gold Project Draft Environmental Impact Statement, October 27, 2020	The potential for spills from mining and oil and gas development is noted. A general discussion of the potential for spills in the highway and utility corridors is provided in Section 3.2.2, Soil Resources, Section 3.2.3, Water Resources, Section 3.2.4, Vegetation Communities and Plants, Section 3.2.5, Wetland Resources, and Section 3.2.6, Fish and Aquatic Species, of the Draft RMP/EIS. Project-specific proposals on BLM-managed lands in the planning area would undergo the appropriate level of NEPA analysis, which would include a risk analysis for spills if appropriate, application of SOPs in **Appendix F** of the Proposed RMP/Final EIS, and any other required conditions of approval to minimize this risk. Such development proposals would also be subject to federal, state, and local permitting requirements.
Gestring	Bonnie	Earthworks	None	146	14	Air Quality and Climate	208.0100.00	The DEIS focuses on monitoring, and adjusting management actions after changes are identified. It provides no data or information to demonstrate that adaptive management actions will proactively protect important area resources from the rapidly changing effects of climate change. To the contrary, industry leaders and regulators acknowledge that mining best practices have not kept pace with these rapid changes. A recent report from a leading mining engineering firm concludes: "There are few best practices and no common standards of practice that provide a prescribed or consistent process for incorporating climate change into engineering design" and it concludes that "this is a barrier in the ability to address the impacts of climate change to mining infrastructure."10 10 Maritz Rykaart, et. al., Climate Change for the Engineer: Standardized Procedure for Climate Change Integration into Engineering Design.," October 2016. Available: https://www.srk.com/en/publications/climate-change-for-theengineer A presentation by a BLM geologist highlights the risks to mine infrastructure from the increased frequency and severity of storm events, and warns that "the reality is the industry is making closure, reclamation and drainage treatment predictions based on a historic climate that no longer exists."11 11 R. David Williams, "Climate Change - Extreme Conditions: Do Plans of Operations Need to Include an Ark?" presented at 20th Annual Mine Design, Operations & Closure Conference, 2012. https://www.mtech.edu/mwtp/2012_presentations/Dave%20Williams.pdf	The Proposed RMP/Final EIS discloses climate change effects at a planning level of detail and proposes an adaptive management framework (**Appendix F**) that would continue to assess resource conditions in the planning area based on best available science over the life of the RMP. While the BLM is not responsible for engineering design of applicant-proposed projects on BLM-managed lands, applicant proposals would continue to be evaluated in project-specific NEPA analysis for project proposals requiring BLM approval.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Gestring	Bonnie	Earthworks	None	146	24	Air Quality and Climate	208.0100.00	The BLM is obligated to evaluate the greenhouse gas emissions that will be generated from the development of lands opened to mining and energy development, including quantifying the emissions and their social cost.30 30 Center for Biological Diversity v. NHTSA, 538 F.3d 538 F.3d 1172, 1200 (9th Cir. 2008) Wilderness Workshop v. BLM, 342 F.Supp.3d 1145, 1154-1156 (D. Colo. 2018). The DEIS must consider the potential cumulative effects of opening up 99% of the CYRMP to resource extraction in addition to the cumulative effects of other reasonably foreseeable actions, including greenhouse gas emissions associated with the proposed Ambler Road, opening up public lands in the Bering Sea Western Interior Resource Management Plan to industrial development, and the Public Land Orders associated with lifting d(1) withdrawals on public lands associated with the Ring of Fire, Bristol Bay, Kobuk Seward, Seward Peninsula, East Alaska, and East Interior RMPs.	Greenhouse gas emissions and the associated social cost of greenhouse gases associated with future utility, infrastructure, and mining-specific actions in the planning area will be analyzed and disclosed at the project-specific level during subsequent NEPA analysis. Because no oil and gas development is anticipated based on the RFD prepared in support of the RMP/EIS (**Appendix N**), a qualitative analysis was determined to the appropriate level of climate change analysis for the RMP/EIS.
Gestring	Bonnie	Earthworks	None	146	25	Air Quality and Climate	208.0100.00	The Draft EIS discusses potential types of air emissions from construction and earth moving activities associated with hard rock mining, but it omits some of the other sources of potential air Emissions, such as emissions from hazardous air pollutant emissions, such as fugitive dust that contains metals, which are a deposition concern. The DEIS should include additional potential air pollutant emissions associated with locatable mineral development, including ore processing emissions and metals contained in fugitive dust, and include an example emissions inventory from a representative mining project.	Additional types of emissions from locatable mineral development, including ore processing, have been included in Section 3.2.1 of the Proposed RMP/Final EIS. No representative emissions inventory has been added due to the varied size and project specificity of potential future plans of operation for such projects. Emissions inventories for mining projects are conducted under project-level NEPA for specific proposed mining projects.
Gestring	Bonnie	Earthworks	None	146	26	Air Quality and Climate	208.0100.00	We support the inclusion of SOP AIR-2 which defines requirements for air quality analysis and mitigation for future actions proposed in the planning area "to prevent degradation of the lands and protect health." We encourage the BLM to expand this SOP to include some of the components from ROP A-7 from the National Petroleum Reserve in Alaska Integrated Activity Plan, particularly the elements regarding potential baseline monitoring, emissions inventory preparation and emissions reduction plan development.	Fewer elements from ROP A-7 have been included in SOP AIR-2 due the differences in the reasonably foreseeable development scenario for the Central Yukon Field Office planning area compared with the NPR-A planning area. The ROP for the NPR-A focused on air quality protections related to future oil and gas development, while SOP AIR-2 of this RMP/EIS focuses on air quality protections from material and locatable minerals development based on the RFD included as **Appendix N** of the Draft RMP/EIS.
Cambell	Bruce	No organization name	None	174	2	Air Quality and Climate	208.0100.00	In 2021, there should be serious analysis of how a shifting climate is impacting and will further impact the planning area, as well as analyze which the likely climate impacts from the alternatives which I hope to see offered in a new RMP/EIS	Section 3.2.1 of the RMP/EIS discloses current and ongoing climate-related changes in the planning area, while the climate change effects on planning area resources are discussed under resource-specific sections.
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	3	Air Quality and Climate	208.0100.00	F.2.1 Air (AIR). Before submitting an application for BLM approval, the permittee may have to submit a list of foreseeable air pollutant emissions and BLM may require air quality modeling and if they feel necessary, they may require monitoring. While this SOP would be very large even for large mining operations, it would likely be unfeasible for smaller placer operators. Furthermore, this requirement also duplicates existing regulatory authorities of the Alaska Department of Environmental Conservation (ADEC) and should be deleted	As noted in SOP AIR-2, the requirement for an accounting of emissions would apply to substantial air emission sources. The BLM would work with applicants to determine the appropriate level of NEPA analysis at the time of project proposal.
West	Jeri	Alyeska Pipeline Service Company	None	196	1	Air Quality and Climate	208.0100.00	These requirements proposed in SOP Air-2 unnecessarily encroach upon EPA and ADEC as the primary agencies that administer air quality requirements. EPA is authorized by the Clean Air Act (CAA) and ADEC is authorized by the State of Alaska State Implementation Plan (SIP), which the EPA approves through rulemaking. The ADEC and EPA have well established rules regarding requirements for ambient air modeling and both agencies have such rules of monitoring. Likewise, how the modeling is conducted and the quality of the meteorological data is set in federal (EPA) regulation. Further, those agencies will serve as cooperating agencies in the NEPA process which recognizes that ADEC and EPA have the expertise and responsibility for air quality issues. BLM does not have this responsibility and would be imposing its own unnecessary and duplicative air quality requirements on stakeholders. We note further that for several of the SOP HAZMAT provisions, BLM defers to the expertise of EPA and ADEC and does not impose its own hazardous material requirements. BLM should do the same for air quality.	Requirements for complying with the provisions of SOP AIR-2 would be determined at the project-specific level and would be used to inform the BLM's decision-making requirements under NEPA and FLPMA. As noted in the SOP, the requirement for reporting air pollutant emissions would apply only to substantial emissions sources and would be determined in coordination with the BLM and potentially with ADEQ depending on the scale of the proposed project.
Crockett	Deantha	Alaska Miners Association	None	199	54	Air Quality and Climate	208.0100.00	F.2.1 Air (AIR). Before submitting an application for BLM approval, the permittee may have to submit a list of foreseeable air pollutant emissions and BLM may require air quality modeling and if they feel necessary, they may require monitoring. While we don't think their target is small operators, the burden would likely be beyond small operators. The burden could get quite large for any operator. This requirement duplicates existing regulatory authorities of the Alaska Department of Environmental Conservation and should be deleted.	Requirements for complying with the provisions of SOP AIR-2 would be determined at the project-specific level and would be required if needed to inform the BLM's decision-making requirements under NEPA and FLPMA. As noted in the SOP, the requirement for reporting air pollutant emissions would apply only to substantial emissions sources and would be determined in coordination with the BLM and potentially with ADEQ depending on the scale of the proposed project.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	44	Air Quality and Climate	208.0100.00	Alaska is already seeing the impacts of climate change. The BLM's Analysis of Management Situation states, "Northern latitudes have experienced significant warming over the last half-century and observations and computer model predictions indicate that increases in temperature are likely to be greater at higher latitudes, such as in the Arctic, where the temperature increase may be more than double the global average" (AMS, p.6). Specific climate change impacts include "coastal erosion, increased storm effects, retreat of sea ice, and melting of permafrost" (Hassol 2004) and changes in wildfire patterns and changes in species abundance and diversity" (AMS, p.6). Citing climate modeling from adjacent areas-NPRA in the Arctic and the BLM Eastern Interior planning area-the AMS provides insight on how climate change may affect resource values and use in the Central Yukon planning area. "Seasonal changes in climate will have profound impacts on the condition and health of wildlife habitat, lead to increased fire risk, and contribute to the likelihood of wetlands, streams, and lakes drying (Rupp and Springsteen 2009)" (AMS, p.6). BLM-managed lands in the Central Yukon area play an important role in the Biden administration's efforts to mitigate climate change factors and effects, given the relationship between permafrost thawing and climate warming. Chapter 3 of the DEIS explains this feedback loop, "whereby warming causes permafrost to thaw and release large amounts of stored carbon; this in turn leads to more warming" (DEIS, p. 3-11). "About half of Alaska is underlain by permafrost. The general warming of the Arctic has increased the rate of permafrost thaw. Multiple studies of permafrost in Alaska have shown that the gradual warming of the ground has resulted in the warming and thawing of permafrost in the Arctic and boreal regions over the past 30 years. Spatial modeling predicts that near-surface permafrost could disappear on up to a quarter of this landscape by the end of the twenty-first century (Markon et al. 2018)" (DEIS, p. 3-11). The DEIS continues: "Studies described in the Rapid Ecological Assessment suggest that the release of organic carbon from peat due to permafrost thaw in boreal Alaska is likely to accelerate ongoing atmospheric warming. A 2018 study, led by University of Alaska Fairbanks researchers, showed that permafrost is thawing much faster under thermokarst lakes in interior Alaska than predicted; this process releases excess amounts of methane and could significantly speed up the effects of climate change (Fresco et al. 2016)" (DEIS, p. 3-12).	The comment is noted. As described by the commenter, the Draft RMP/EIS discloses the past, present, and projected climate change-related effects as documented in recent climate literature.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	67	Air Quality and Climate	208.0100.00	The BLM acknowledges that "authorized surface-disturbing actions that disturb permafrost would release stored carbon, contributing to climate change trends" (DEIS, p. 3-15). Yet the agency's preferred alternative (C2) in the draft RMP proposes opening 98 percent of the planning area to mineral entry, despite the demonstrated impact of intensive development activities on thawing permafrost and climate warming.	The BLM's Proposed Plan, Alternative E, would reduce the areas open to mineral materials development. Additional limitations would be imposed to avoid impacts on sensitive resources such as sensitive soils. Overall, the Proposed RMP would conserve more area than under current management.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	5	Air Quality and Climate	208.0100.00	Accelerating concentrations of greenhouse gas emissions (GHG) pose an existential threat to humanity. It's universally agreed that global emissions should be drastically reduced to prevent exceeding a global average temperature increase of 1.5°C. The Intergovernmental Panel on Climate Change calculated in 2018 that there was a 50% probability of meeting the 1.5°C Paris Climate Agreement target if cumulative emissions of CO2e were kept to 580 gigatons (IPCC 2018). To underscore the significance of the challenge, the burning and loss of boreal forests (with its soil organic layer) could release approximately 110 Gt of CO2e, and the subsequent thawing of permafrost could release 100 Gt CO2e or more thus representing a significant role in the remaining carbon budget (Lenton 2019). BLM should evaluate the value of their lands to sequester carbon, and strategies to retain as much carbon as possible. This evaluation would align with Secretarial Orders 3398 and 3399.	The comment is noted. Section 3.2.1 of the Draft RMP/EIS described carbon sequestration on federal lands in Alaska.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	48	Air Quality and Climate	103.0300.00	The BLM acknowledges that "authorized surface-disturbing actions that disturb permafrost would release stored carbon, contributing to climate change trends" (DEIS, p. 3-15). Yet the agency's preferred alternative (C2) in the draft RMP proposes opening 98 percent of the planning area to mineral entry, despite the demonstrated impact of intensive development activities on thawing permafrost and climate warming. Alternative B, with the recommended changes made in these comments, is the only alternative that adequately aligns with the intent described in Executive Order 14008, Tackling the Climate Crisis at Home and Abroad. The EO specifically directs agencies to: 1) "Implement a Government-wide approach that reduces climate pollution in every sector of the economy" and "increases resilience to the impacts of climate change" through a "coordinated approach from planning to implementation, coupled with substantive engagement by stakeholders, including State, local, and Tribal governments" (Section 201); and 2) "Achieve the goal of conserving at least 30 percent of our lands and waters by 2030" (Section 216).	The BLM's Proposed Plan, Alternative E, would reduce the areas open to mineral materials development. Additional limitations would be imposed to avoid impacts on sensitive resources such as sensitive soils. Overall, the Proposed RMP would conserve more area than under current management.
Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	4	ANCSA 17(d)(1) withdrawals	209.0202.00	PLO and ANCSA withdrawals: We recommend that the plan be amended to maintain or modify the existing Public Land Orders (PLOs) in the vicinity of Koyukuk, Nowitna, and Innoko NWRs (5173, 5179, 5180, 5184, and 5186) that have withdrawn lands from locatable mineral entry, until appropriate mineral withdrawals can be put in place. Although some PLOs may have served their initially intended purpose, they continue to play a very valuable role in protecting refuge water, fish, and wildlife resources through development (e.g. mining) restrictions in high-value watersheds. Revoking all PLOs, including those that are adjacent to Koyukuk, Nowitna, and Innoko NWRs does not serve the public interest on BLM lands (with a mandate for sustained yield of resources for present and future generations) or on adjoining conservation system unit lands. Revocation of these PLOs puts refuge resources at risk through potential impacts to water quality, fisheries, and wildlife populations (including caribou) through mining and other development. With PLO revocation, portions of high-value watersheds adjacent to Koyukuk, Nowitna, and Innoko NWRs (including areas identified as ACECs in this plan), and areas within the Galena Mountain Caribou Herd core calving grounds would be made available for conveyance to the State. In fact, most of the BLM lands adjacent to the Koyukuk, Nowitna, and Innoko NWRs have been identified as State of Alaska or ANCSA 17(d)(1) selected lands. Once a Record of Decision is made for this CYRMP, all of those lands could be conveyed within 10 years to the State of Alaska or the Native Tribes. Unless the plan is modified, there will be no protections for any affected ACECs, connectivity corridors (CC), wilderness priority (LWCs), or suitable Wild and Scenic River (WSR) segments that are currently identified in Alternative B from loss through land transfer. Should BLM proceed with revocations for some or all PLOs, we support the following approach described within the plan: "Where appropriate for carrying out management decisions under Alternatives B and C 1, recommend new FLPMA withdrawals or modifications to existing withdrawals to meet the current and future management needs" (Table 2-19). We recommend new FLPMA for areas currently withdrawn under PLOs 5173, 5179, 5180, 5184, and 5186 that are adjacent to Koyukuk, Nowitna, and Innoko NWR and/or in any of the watersheds flowing into these refuges.	ANCSA section 17(d)(1) authorized the Secretary to "authorized the Secretary to "determine whether any portion of these lands should be withdrawn under authority provided for in existing law to insure that the public interest in these lands is properly protected" and then “to classify or reclassify any lands so withdrawn and to open such lands to appropriation under the public land laws in accordance with his classifications” The RMP therefore considered a range of alternatives for recommending retention or revocation (full or partial) of the ANCSA 17(d)1 withdrawals and analyzed the impacts of these alternatives to ensure the public interest is protected. Alternative E would recommend partial revocation of the ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans where the PLOs do not currently allow for it. The Draft RMP/EIS Chapter 3, Section 3.1 Introduction, describes the potential recommendations, retentions, and revocation as well as what would happen after a revocation when top-filings are become effective selections.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	1	ANCSA 17(d)(1) withdrawals	209.0201.00	Lands and Realty: We are particularly concerned about the long-term impacts to the Koyukuk Nowitna and Innoko NWRs, including impacts to watersheds and water quality and quantity under Preferred Alternative C2 and Alternative D. Both would open substantially more land to resource development because these alternatives do not contain many of the protective conservation measures proposed in Alternatives B and C 1, and which currently are in place under the existing management (Alternative A). Alternatives C2 and D would impede the ability of several of our NWRs to fully meet their establishment purposes under the Alaska National Interest Lands Conservation Act (ANILCA). Furthermore, full revocation of PLOs under alternatives C2 and D would put subsistence access and practices at risk, possibly resulting in the loss of Federal subsistence priority for rural residents. When these lands leave the Federal estate, the loss of protection, combined with increased potential for development, poses considerable risk to Federal trust and subsistence resources in our region. We would like the BLM to consider it critically important to retain in federal ownership those lands that support high-value watersheds that flow into Koyukuk, Nowitna, and Innoko NWRs, including: Indian River, Hogatza River and its tributaries, Klikhentotzna Creek, Dakli River, Wheeler Creek, Billy Hawk Creek, N. Fork Huslia River, Dulbi River, Lost River, Our Creek, Sulukna River, Sethkokna River, Telsitna River, and Titna River. An option would be to retain the 17(d)(1) withdrawals in these watersheds by recommending that the Secretary of the Interior revoke ANCSA 17(d)(1) withdrawals. We recommend new Federal Land Policy and Management Act (FLPMA) withdrawals or modifications to existing withdrawals be made to meet the current and future management needs.	The RMP considered a range of alternatives for recommending retaining or revoking ANCSA 17(d)1 withdrawals and analyzed the impacts of these alternatives. Alternative E would recommend partial revocation of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans where the PLOs do not currently allow for it.
Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	13	ANCSA 17(d)(1) withdrawals	209.0201.00	Retain all ANCSA 17(d)(1) Withdrawals LAND CONVEYANCE * A majority of BLM owned lands adjacent to the Koyukuk, Nowitna, and Innoko Refuges lands are identified as State of Alaska PLO or ANCSA 17(d)(1) selected lands. Once a Record of Decision (ROD) is made for this Central Yukon RMP all of those lands could be conveyed within 10 years to the State of Alaska or Native Tribes. If that occurs there will be no protections for any affected ACECs, wilderness priority, or WSR lands that are currently identified in Alternative B. * We support continuance of existing Public Land Orders (PLOs), including Alaska Native Claims Settlement Act (ANCSA) 37 of 1971 17(d)(1) withdrawals (Alternative A), particularly PLOs 5173, 5179, 5180, 5184, and 5186 within watersheds of Koyukuk, Nowitna and Innoko NWRs. We have significant concerns that changes in land ownership in areas upstream of Koyukuk, Nowitna, and Innoko NWRs have potential to negatively impact the Refuges through changes in management and resource development. * Full revocation of PLOs 5173, 5179, 5180, 5184, and 5186 puts Refuge resources at risk through potential impacts to water quality, fisheries, and wildlife populations (including caribou). Of particular concern are areas that overlap identified ACECs, and identified wildlife corridors adjacent to Koyukuk, Nowitna, and Innoko NWRs and areas within the core calving grounds of Galena Mountain Caribou Herd. We do not support full revocation of PLOs under any alternatives.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM considers reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives, including those related to ACECs. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options for ACEC management including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Lavin	Pat	Defenders Of Wildlife	None	193	4	ANCSA 17(d)(1) withdrawals	209.0201.00	BLM states that all action alternatives share the sensible objective to achieve "land ownership patterns in the planning area result in efficient and effective management of the public lands that minimize the number of small, isolated BLM parcels that are difficult to manage."4. Revoking all withdrawals to make the maximum number of acres available for allotment selection undermines this objective. Despite noting that revoking withdrawals will make the lands available for selection for allotments by Vietnam veterans, BLM fails to estimate the number of allotments, potential acreage impacted, and the effects of adding a significant and potentially scattered private inholding estate in the planning area. A targeted assessment of whether and where to make lands available for allotment selection will help reduce land ownership fragmentation and associated land management challenges for the agency. 4. DEIS at 2-49, Table 2-19	A targeted assessment of specific lands which would be made available for allotment selection is beyond the scope of the current RMP. More site-specific analysis of selected allotments may be conducted during future review, and conveyance of lands would be subject to existing laws and legislative mandates, including: Public Law 116-9 (Dingell Act); the Alaska Statehood Act, ANCSA, and the 1906 Native Allotment Act.
Lavin	Pat	Defenders Of Wildlife	None	193	6	ANCSA 17(d)(1) withdrawals	209.0201.00	There are currently D1 withdrawals totaling 5.253 million acres in the planning area.5 BLM states that it did not evaluate an action alternative that retains any acreage in D1 withdrawals because "the selection process is complete and the land use planning process is being used to determine appropriate classifications of lands."6 But this doesn't render the evaluation of an alternative that retains the withdrawals inappropriate or unreasonable. The land use planning process could conclude that, viewing the planning area as a whole and considering neighboring ownerships and use patterns among many other factors, retaining the withdrawals best furthers BLM's overall goals and management objectives. For many withdrawals this appears to be a viable course of action. BLM must eliminate the incorrect premise that it must revoke all D1 withdrawals and consider a range of full and partial retention of them, in addition to potential revocations. 5 DEIS at 2-10, Table 2-1. 6 DEIS at 2-12.	The language ""the selection process is complete and the land use planning process is being used to determine appropriate classifications of lands" has been removed from Chapter 2. The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The No Action alternative is part of the range of alternatives. As such, the Draft RMP/EIS discloses the effects of a range of alternatives from 50% of the planning area available for locatable mineral entry to 98% of the planning area available for locatable mineral entry. Because of the rights inherent in the 1872 Mining Law and the BLM's multiple-use mandate, this represents a range of reasonable alternatives. The effects of each of the alternatives are disclosed in Chapter 3. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS. The BLM's Proposed Alternative E recommends a partial revocation of ANCSA 17(d)(1) withdrawals to allow selection by Vietnam-era Veterans. Impacts from this action are not likely to be significant. The BLM agrees that there are reasons to keep this withdrawal in place, and this was considered in development of the BLM's Proposed Alternative.
Magee	Susan	State Of Alaska	None	165	1	ANILCA	105.0000.00	The relatively limited amount of BLM-managed multiple-use lands in the planning area is a critical component of the balance Congress intended for Alaska, including the Utility Corridor, which was withdrawn specifically to allow for the construction of the Trans Alaska Pipeline (TAPS) and now houses the Dalton Highway, a critical transportation link to Alaska's North Slope. These multiple-use lands cannot be managed as CSU buffers, extensions of the existing CSUs, or de facto CSUs, as appears to be proposed in some sections of the draft plan (e.g., Boreal Ecosystem Analysis for Conservation Networks (BEACONs) benchmark areas and connectivity corridors that connect CSUs both within and outside the planning area). Many aspects of the plan have a myopic reliance on the conservation components of ANILCA and, as a result, conflict with the Congressional intent of ANILCA to balance conservation and active use. This bias is not recognized in this planning effort.	The Proposed RMP identifies lands that would be managed to emphasize other resource values and multiple use while applying management restrictions to reduce impacts to wilderness characteristics. Like all public lands, they will be managed by the BLM in accordance with land use plans and all applicable provisions of law, the arrangement that Congress presumed in ANILCA § 101(d) when it deemed its "designation and disposition of the public lands in Alaska" to afford "sufficient protection," and represent "proper balance." No new conservation-system units, national conservation areas, or national recreation areas would be established by the RMP.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Magee	Susan	State Of Alaska	None	165	18	ANILCA	105.0000.00	Adaptive Management Strategy: Boreal Ecosystem Analysis for Conservation Networks (BEACONs) Benchmarks and Landscape Connectivity * Issues: o Proposed adaptive management strategy conflicts with the Congressional intent of ANILCA and disregards the provisions of ANILCA that provide for active use and development activities and rather focuses solely on ANILCA's provisions for conservation. o BEACONs is a speculative and theoretical planning concept focused on obtaining an international landscape of connected functioning ecosystems that neglects the compromises Congress recognized for public lands in Alaska. o The connectivity corridor planning effort provides a one-sided perspective of landscape connectivity corridor planning. It conflicts with the overall intent of much of the baseline literature referenced by the Draft RMP/EIS by omitting key portions of the methodologies, such as the necessity for broad stakeholder engagement and partnership and the necessity of allowing for a breadth of use to ensure successful proactive connectivity planning efforts. o The State of Alaska and, specifically, ADF&G-a key stakeholder-was not adequately and fully engaged with on this aspect of the planning effort. Concepts were explained but we were not consulted in their development nor were our comments ever discussed with us. o The draft RMP lacks necessary detailed information on what, why, and how BLM developed this management framework. o The draft RMP/EIS modeling for connectivity corridors and benchmark selection fails to include an animal component or explain the relevance of the priority species identified yet not incorporated into modeling efforts and also failed to coordinate either aspect with ADF&G. o The adaptive management strategy is scattered throughout the document and there are conflicts between sections. This makes it difficult for the public to find all the necessary components of the proposed management. o Standard Operating Procedures (SOPs) provide specific management intent for benchmarks and connectivity corridors that have the potential to significantly restrict use and access which conflicts with ANILCA. o All terminology is not clearly defined. o According to the cited literature a key functional component of corridors is to ensure the viability of local species populations adaptation to climate change, but the draft RMP indicates that the corridors are not being developed with a focus on wildlife movement. No data is included to demonstrate how potential species may use the corridors for migration as climate changes nor does the plan identify current and future wildlife migration concerns critical to the methodology cited. o Consultation/coordination with non-BLM landowners and CSU managers is mandated in Appendices F and G of the draft RMP/EIS, yet the planned consults appear to be with CSU managers only. No reference is made to coordinating/consulting with the State, ADF&G, or other critical stakeholders. * Resolution: o Recognize the full spectrum of provisions in ANILCA relevant to this planning effort including provisions for conservation and active land use and the prohibitions against creating de facto CSU lands without Congressional approval (e.g., ANILCA sections 101(d) and 1326, and Title XI). o Include coordination/consultation with the State in the adaptive management strategy and, due to the improper assumptions of the theoretical modeling employed and potential misapplication of the unverified results of the modeling exercise, remove BEACONs components of connectivity corridors and benchmarks (and associated SOPs) as the foundation of the adaptive management strategy for the CY planning area; replace with a coordinated program developed in collaboration with ADF&G and other stakeholders for wildlife management and conservation in accordance with BLM Manuals 6500, 6600, 6720. o Remove Magness et al. (2018) theoretical research modeling as the primary foundational structure for directing management policy and instead provide peer-reviewed best practices for applied research methods for connectivity corridor science.	The Proposed RMP identifies lands that would be managed to emphasize other resource values and multiple use while applying management restrictions to reduce impacts to wilderness characteristics. Like all public lands, they will be managed by the BLM in accordance with land use plans and all applicable provisions of law, the arrangement that Congress presumed in ANILCA § 101(d) when it deemed its "designation and disposition of the public lands in Alaska" to afford "sufficient protection," and represent "proper balance." No new conservation-system units, national conservation areas, or national recreation areas will be established by the RMP.
Magee	Susan	State Of Alaska	None	165	19	ANILCA	105.0000.00	* Discussion: We remain concerned that BLM in the CYRMP, as in the recently completed Bering Sea-Western Interior (BSWI) RMP, is implementing unofficial policy through their proposed adaptive management strategy, which is comprised of connectivity corridors and vast benchmark areas that are inappropriate for Alaska and also inconsistent with ANILCA. ANILCA established 100 million acres of CSUs of unprecedented size across Alaska and at the same time included unprecedented provisions to provide for the State and its citizen's social and economic interests. The remaining State, Alaska Native Corporation and other private lands, and BLM multiple-use lands, are part of this balance Congress achieved for Alaska (see ANILCA Section 101(d)). The application of the benchmarks and connectivity corridors in the CYRMP planning area not only threaten this balance without oversight from Congress, it frustrates the Congressional intent in ANILCA. For example, ANILCA Title XI, in which Congress found Alaska's transportation and utility infrastructure largely undeveloped, established a process to ensure the designation of the vast CSUs would not interfere with or prevent federal land management agencies from appropriately considering future proposed projects in all areas of the state. The language in ANILCA demonstrates Congress did not intend for access to be restricted in such a manner outside of CSUs on BLM multiple-use lands. Yet the entire framework proposed for the plan's adaptive management component, which includes connectivity corridors to link existing CSUs and large benchmark areas conflicts with the clear Congressional intent in ANILCA by assigning SOPs that potentially cease authorization of discretionary land uses on BLM managed lands and watersheds. In the Draft RMP/EIS, the BEACONs project is one of two primary sources cited in Appendix G for the strategies applied in the planning area to achieve the proposed adaptive management goals. These concepts were developed by the Northwest Boreal Landscape Conservation Cooperative (NWB-LCC). "The NWB-LCC is comprised of over 30 federal and state/provincial agencies, non-governmental organizations, Tribes and First Nations, and research institutions."10 10 Series: Alaska Park Science - Volume 17, Issue 1. Migration: On the Move in Alaska, "Bridging the Boreal: Landscape Linkages Connecting the Federal Conservation Estate in Alaska. Accessed at: https://www.nps.gov/articles/aps-17-1-12.htm" BLM and the USFWS are both part of the NWB-LCC and appear to have worked closely with them in adopting these concepts as adaptive management for the CYRMP. Yet, despite cooperating agency status, the State of Alaska (the States referenced in the article are Canadian not American states), has not been party to these efforts to promote and apply these concepts as a planning tool. In fact, while the LCC's website includes many references to its involvement with the CYRMP, the RMP includes no mention of the organization and its overall goal of "working toward an international landscape that sustains functioning, resilient boreal ecosystems." 11 11https://www.lccnetwork.org/lcc/northwest-boreal	The Proposed RMP identifies lands that would be managed to emphasize other resource values and multiple use while applying management restrictions to reduce impacts to wilderness characteristics. Like all public lands, they will be managed by the BLM in accordance with land use plans and all applicable provisions of law, the arrangement that Congress presumed in ANILCA § 101(d) when it deemed its "designation and disposition of the public lands in Alaska" to afford "sufficient protection," and represent "proper balance." No new conservation-system units, national conservation areas, or national recreation areas will be established by the RMP.

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Magee	Susan	State Of Alaska	None	165	20	ANILCA	105.0000.00	BLM is not tasked with providing an "international landscape." Rather than working with and engaging with the State and other local stakeholders to determine appropriate adaptive management strategies in the CY planning area, BLM cooperation efforts relied on international non-profit groups (i.e., the interconnected NWB-LCC, Northwest Boreal Partnership, and the Northwest Latitudes Partnership) 12 and the BEACONs modeling, whose focus was on developing/linking a swath of conservation lands stretching from the Rocky Mountains, through Canada, and across Alaska, 13 rather than on CYRMP needs. Whatever interests BLM staff may have in these concepts, they must be developed under applicable law. 12 https://www.lccnetwork.org/lcc/northwest-boreal, NORTHWEST BOREAL PARTNERSHIP - Northwest Boreal Partnership, Northern Latitudes Partnerships - Resilience Across Borders) and Land Use Planning Projects Northwest Boreal LCC - NORTHWEST BOREAL PARTNERSHIP 13 NWB-LCC-Strategic-Plan-V1.pdf (nwblcc.org) The draft RMP/EIS explains in Section G.2, Connectivity Corridors, that "[t]he use of corridors to connect core conservation areas is generally found in developed areas with highly fragmented ecosystems; however, there are also application examples in areas where opportunities exist for proactively conserving largely intact systems" (Emphasis added) (Bennett and Mulongoy, 2006, p G-8). A review of the Bennett and Mulongoy, 2006 article also includes the following foundational premise for the application of the methodology: Corridors - in the sense of functional linkages between sites - are essentially devices to maintain or restore a degree of coherence in fragmented ecosystems. In principal, linking isolated patches of habitat can help increase the viability of local species populations in several ways (p 6).14 14 https://www.cbd.int/doc/publications/cbd-ts-23.pdf The article then continues to state: the ecological network is also being applied in order to retain the coherence of large ecosystems or ecoregions which are still relatively intact but are coming under increasing pressure - often through a combination of development and underdevelopment (ibid. p 88) Bennett and Mulongoy (2006) then list the following as examples of how corridors can serve to increase the viability of local species populations: access to new habitats, seasonal migration, opportunity for genetic exchanges, and opportunities to move to new locations, by securing the integrity of physical environmental process vital to the species. Once again identifying the importance of the species component to connectivity corridor planning. The draft RMP/EIS also conveniently omits the premise that the intact ecosystems addressed in the literature it cites are under pressure and the fact that the articles also emphasize the necessity of engaging all stakeholders and providing for diverse active as well as conservation uses of the lands intended as corridors. The draft RMP/EIS not only fails to adhere to the balance Congress applied in ANILCA, it also fails to achieve the balanced approach identified in much of the referenced literature.	The Proposed RMP identifies lands that would be managed to emphasize other resource values and multiple use while applying management restrictions to reduce impacts to wilderness characteristics. Like all public lands, they will be managed by the BLM in accordance with land use plans and all applicable provisions of law, the arrangement that Congress presumed in ANILCA § 101(d) when it deemed its "designation and disposition of the public lands in Alaska" to afford "sufficient protection," and represent "proper balance." No new conservation-system units, national conservation areas, or national recreation areas will be established by the RMP.
Magee	Susan	State Of Alaska	None	165	28	ANILCA	105.0000.00	Finally, the plan should note that the proposal to manage the CAMA Wilderness Study Area (WSA) as a ROW exclusion area is only temporary until Congress acts on the long-standing wilderness recommendation, as the mandatory ANILCA Title XI process is also applicable to designated wilderness.	The Proposed RMP identifies lands that would be managed to emphasize other resource values and multiple use while applying management restrictions to reduce impacts to wilderness characteristics. Like all public lands, they will be managed by the BLM in accordance with land use plans and all applicable provisions of law, the arrangement that Congress presumed in ANILCA § 101(d) when it deemed its "designation and disposition of the public lands in Alaska" to afford "sufficient protection," and represent "proper balance." No new conservation-system units, national conservation areas, or national recreation areas will be established by the RMP.
Magee	Susan	State Of Alaska	None	165	29	ANILCA	105.0000.00	Congressional Oversight Required Under FLPMA and ANILCA * Issue: The draft plan does not acknowledge that Congressional oversight is required under FLPMA and ANILCA if decisions eliminate principal uses on one hundred thousand acres or impose withdrawals on more than five thousand acres in the aggregate. * Resolution: Recognize and follow requirements in FLPMA and ANILCA. * Discussion: Particularly under Alternative B, the draft RMP includes numerous proposed restrictions and withdrawals that apply to ACECs and other designations that would require approval by Congress pursuant to either or both FLPMA and ANILCA, specifically, FLPMA 202(e)(2) and ANILCA Section 1326(a). The draft RMP does not currently recognize these requirements. FLPMA 202(e)(2) requires BLM to report any management decision or action that excludes one or more of the principal or major uses (e.g., ROW Exclusion Area Designation) for two or more years on one hundred thousand acres to Congress, which terminates, if not adopted as follows: Any management decision or action pursuant to a management decision that excludes (that is, totally eliminates) one or more of the principal or major uses for two or more years with respect to a tract of land of one hundred thousand acres or more shall be reported by the Secretary to the House of Representatives and the Senate. If within ninety days from the giving of such notice (exclusive of days on which either House has adjourned for more than three consecutive days), the Congress adopts a concurrent resolution of non-approval of the management decision or action, then the management decision or action shall be promptly terminated by the Secretary. Section 1326(a) of ANILCA requires that any withdrawal of more than 5,000 acres in the aggregate in Alaska be noticed in the Federal Register as well as to both houses of Congress. The withdrawal(s) will terminate one year from the date notice was submitted unless Congress passes a joint resolution of approval. No future executive branch action which withdraws more than five thousand acres, in the aggregate, of public lands within the State of Alaska shall be effective except by compliance with this subsection. To the extent authorized by existing law, the President or the Secretary may withdraw public lands in the State of Alaska exceeding five thousand acres in the aggregate, which withdrawal shall not become effective until notice is provided in the Federal Register and to both Houses of Congress. Such withdrawal shall terminate unless Congress passes a joint resolution of approval within one year after the notice of such withdrawal has been submitted to Congress. BLM needs to recognize and follow these requirements if decisions in the final proposed RMP meet or exceed these thresholds.	The Proposed RMP identifies lands that would be managed to emphasize other resource values and multiple use while applying management restrictions to reduce impacts to wilderness characteristics. Like all public lands, they will be managed by the BLM in accordance with land use plans and all applicable provisions of law, the arrangement that Congress presumed in ANILCA § 101(d) when it deemed its "designation and disposition of the public lands in Alaska" to afford "sufficient protection," and represent "proper balance." No new conservation-system units, national conservation areas, or national recreation areas will be established by the RMP.
Schutt	Aaron	Doyon Limited	None	173	15	ANILCA	105.0000.00	Designation and management of many of these areas as ACECs, including proposed management as ROW exclusion or avoidance areas, would make it significantly more difficult for non-Federal landowners like Doyon to access and use their lands that are adjacent to or in the vicinity of ACECs. This situation also implicates access rights under ANILCA.	The Alternative E Proposed Plan clarified text about proposed rights-of-ways in ACECs. Unless specific lands are designated as right-of-way exclusion areas, ACEC designations would not prevent or preclude authorized access to adjacent lands not managed by BLM. Additionally, ACEC designations would not prevent any rights-of-way guaranteed under section 1323(b) of the Alaska National Interest Lands Conservation Act. Right-of-way avoidance areas within ACECs are areas that would be available for authorized activities that may entail special stipulations or consideration of other site-specific alternatives to protect identified R&I values for the subject ACEC(s) involved. The BLM would work with any project proponent to design a project plan in right-of-way avoidance areas that meets the proponent's needs and protects R&I ACEC values.
Schutt	Aaron	Doyon Limited	None	173	36	ANILCA	105.0000.00	In the event that BLM does, however, plan to designate any FLPMA ROW avoidance areas, it should only do so after further specific consultation, and the agency must make clear in the final RMP that all such areas are subject to ANILCA's access provisions, as set forth in the discussion of ROW avoidance areas in Alternatives C and D.	The Alternative E Proposed Plan clarified text about proposed rights-of-ways in ACECs. Unless specific lands are designated as right-of-way exclusion areas, ACEC designations would not prevent or preclude authorized access to adjacent lands not managed by BLM. Additionally, ACEC designations would not prevent any rights-of-way guaranteed under section 1323(b) of the Alaska National Interest Lands Conservation Act. Right-of-way avoidance areas within ACECs are areas that would be available for authorized activities that may entail special stipulations or consideration of other site-specific alternatives to protect identified R&I values for the subject ACEC(s) involved. The BLM would work with any project proponent to design a project plan in right-of-way avoidance areas that meets the proponent's needs and protects R&I ACEC values.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Schutt	Aaron	Doyon Limited	None	173	37	ANILCA	105.0000.00	In the event that BLM does, however, plan to designate any FLPMA ROW avoidance areas, it should only do so after further specific consultation, and the agency must make clear in the final RMP that all such areas are subject to ANILCA's access provisions, as set forth in the discussion of ROW avoidance areas in Alternatives C and D.	The Alternative E Proposed Plan clarified text about proposed rights-of-ways in ACECs. Unless specific lands are designated as right-of-way exclusion areas, ACEC designations would not prevent or preclude authorized access to adjacent lands not managed by BLM. Additionally, ACEC designations would not prevent any rights-of-way guaranteed under section 1323(b) of the Alaska National Interest Lands Conservation Act. Right-of-way avoidance areas within ACECs are areas that would be available for authorized activities that may entail special stipulations or consideration of other site-specific alternatives to protect identified R&I values for the subject ACEC(s) involved. The BLM would work with any project proponent to design a project plan in right-of-way avoidance areas that meets the proponent's needs and protects R&I ACEC values.
Schutt	Aaron	Doyon Limited	None	173	43	ANILCA	105.0000.00	ANILCA included unique and specific provisions to guarantee that such landowners would have reasonable access to inholdings within or effectively surrounded by one or more conservation system units, national recreation areas, national conservation areas, or areas of public lands designated as wilderness study so that they could make economic and other se of their property. Any elements of the RMP that may affect access to inholdings within CSUs and general (non-CSU) BLM-managed public lands must be fully consistent with these provisions, and these provisions should be addressed explicitly and prominently in the final RMP.	The Proposed RMP identifies lands that would be managed to emphasize other resource values and multiple use while applying management restrictions to reduce impacts to resources or special designations. Like all public lands, they will be managed by the BLM in accordance with land use plans and all applicable provisions of law, the arrangement that Congress presumed in ANILCA § 101(d) when it deemed its "designation and disposition of the public lands in Alaska" to afford "sufficient protection," and represent "proper balance." No new conservation-system units, national conservation areas, or national recreation areas will be established by the RMP. BLM management, including ROW exclusion and avoidance areas, will not preclude the application of ANILCA sections 811, 1110(b), or 1323(b) rights of access."
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	2	ANILCA	105.0000.00	The Alaska National Lands Conservation Act (ANILCA) was passed in 1980 in which special protection of some form was given to over 157 million acres of land in Alaska. Furthermore, the "no more" promise in ANILCA stated that "designating new conservation system units, new national conservation areas, or new national recreation areas, has been obviated thereby". Therefore, to comply with the multiple-use mandate of FLPMA and the "no more" promise of ANILCA, the RMP should not recommend types of special land use designations for large blocks of land that would restrict multiple use of these lands. This would include the following list of designations: · Areas of Critical Environmental Concern (ACEC's) · Right of Way Exclusion Areas · Core Caribou Habitat Areas · Dall Sheep Habitat Areas and Movement Corridors · Lands with Wilderness Characteristics · Wilderness Recommendations · Wild and Scenic River Designations · Boreal Ecosystems Analysis for Conservation Networks (BEACONS)	Administrative designations such as Areas of Critical Environmental Concern, Special Recreation Management Areas, Utility and Transportation Corridors, and Lands with Wilderness Character are not Conservation System Units as defined by ANILCA. The BLM considers a variety of administrative designations to manage the lands for multiple uses.
Crockett	Deantha	Alaska Miners Association	None	199	4	ANILCA	105.0000.00	Furthermore, in 1980 when Congress passed the Alaska National Interest Lands Conservation Act (ANILCA), these BLM lands were to be managed "for more intensive use and disposition". In Section 101(d) of ANILCA, it was specifically stated than the need for additional Conservation land designations in Alaska had been met: "…the designation and disposition of the public lands in Alaska pursuant to this Act are found to represent a proper balance between the reservation of national conservation system units and those public lands necessary and appropriate for more intensive use and disposition, and thus Congress believes that the need for future legislation designating new conservation system units, new national conservation areas, or new national recreation areas, has been obviated thereby." This is the "no more" promise of ANILCA.	The Proposed RMP identifies lands that would be managed to emphasize other resource values and multiple use while applying management restrictions to reduce impacts to wilderness characteristics. Like all public lands, they will be managed by the BLM in accordance with land use plans and all applicable provisions of law, the arrangement that Congress presumed in ANILCA § 101(d) when it deemed its "designation and disposition of the public lands in Alaska" to afford "sufficient protection," and represent "proper balance." No new conservation-system units, national conservation areas, or national recreation areas will be established by the RMP.
Crockett	Deantha	Alaska Miners Association	None	199	31	ANILCA	105.0000.00	ROW exclusion areas also directly conflict with the ANILCA Section 1323(b) promise of access to ANCSA Native Corporation and State-owned lands.	The Alternative E Proposed Plan clarified text about proposed rights-of-ways in ACECs. Unless specific lands are designated as right-of-way exclusion areas, ACEC designations would not prevent or preclude authorized access to adjacent lands not managed by BLM. Additionally, ACEC designations would not prevent any rights-of-way guaranteed under section 1323(b) of the Alaska National Interest Lands Conservation Act. Right-of-way avoidance areas within ACECs are areas that would be available for authorized activities that may entail special stipulations or consideration of other site-specific alternatives to protect identified R&I values for the subject ACEC(s) involved. The BLM would work with any project proponent to design a project plan in right-of-way avoidance areas that meets the proponent's needs and protects R&I ACEC values.
Crockett	Deantha	Alaska Miners Association	None	199	92	ANILCA	105.0000.00	Ensure that the land use management decisions do not conflict with the requirements of, and rights guaranteed under ANILCA, FLPMA, and other land use statutes.	The BLM has reviewed the actions of the Proposed Plan against applicable laws, regulations, and guidance.
Miller	Pamela	No organization name	None	17	3	Areas of Critical Environmental Concern	211.0100.00	The executive summary, as well as the text of the EIS, fails to clearly state that 23 existing ACECs or RNAs would be removed by the preferred Alternative C2, except that one existing, Toolik Lake RNA. The only place this is shown is in Table 2-11. This is a key fact that's hidden in the documents. Giving names to these much loved places accessible along the Haul Road and throughout the plan area are key to environmental and cultural values and tourism.	The Executive Summary was updated to reflect that the Proposed RMP/Final EIS Alternative C2 would remove 23 existing ACECs or RNAs, and refers the reader to Table 2-11.
Miller	Pamela	No organization name	None	17	4	Areas of Critical Environmental Concern	211.0100.00	I urge BLM to address an alternative which would propose all the nominated 48 ACECs and RNAs. This was a very extensive and thorough process that people engaged on. We need reminders about what was proposed. There should be another round of meetings just to go through the specifics of these recommendations.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.

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Armstrong	Jay	No organization name	None	18	1	Areas of Critical Environmental Concern	211.0100.00	I think there's also some of the South Fork of the Koyukuk, which, if this ACEC there were implemented, they would never be accessible or be allowed to mine. So that's something that I feel needs to be considered on that ACEC until a proper evaluation of any of these ACECs go into effect.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Sam	Susie	No organization name	None	28	1	Areas of Critical Environmental Concern	211.0100.00	Louden proposed, for some time, not to open to development, and we ask that this land be designated as an area of critical environmental concern. We applied many times to include our subsistence lands under this ACEC. Our nominations were mostly watersheds, watersheds that are heartbeat to our way of life. It is not okay that BLM has proposed to deny our request for protection of these important traditional lands.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Green	Charlie	Louden Tribal Council	None	35	1	Areas of Critical Environmental Concern	211.0100.00	Louden and Koyukuk proposed that some land be not open to development and we asked that this land be designated as an Area of Critical Environmental Concern. Our nominations are mostly watersheds - watersheds are the heartbeat of our way-of-life. It's is not okay that BLM has proposed to deny our request for protection of these important traditional lands.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Long	Becky	No organization name	None	52	1	Areas of Critical Environmental Concern	211.0100.00	Alternative C2 is inadequate because it only designates Toolik Research Station as an Area of Critical Concern (ACEC). All areas of concern, all ACECs, stated in the Preliminary Alternative concepts should be adopted. BLM's mandate is to manage the land wisely. It is not to open up the whole wide expanse to a mining boom.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Buss	Jordan	No organization name	None	54	1	Areas of Critical Environmental Concern	211.0100.00	All Areas of Critical Environmental Concern (ACEC) proposed in the Preliminary Alternatives Concepts should be adopted in order to adequately protect the planning area's lands, waters, and wildlife. If preferred Alternative C2 were chosen, only the Toolik Lake Research Station ACEC would remain designated. This is grossly inadequate and would be in direct violation of BLM mandate to manage wisely for protection of all natural resources.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.

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Chu	Rebecca	U.S. Environmental Protection Agency	None	67	19	Areas of Critical Environmental Concern	211.0100.00	There are a total of 37 Areas of Critical Environmental Concern or Research Natural Areas considered for designation under Alternatives A and/or B. However, the preferred Alternative C2 proposes to designate only a portion of one ACEC at Toolik Lake, a reduction in total acreage of 99% from current management protection for sensitive resources in ACECs. Many of the areas that are currently managed as ACECs or proposed as ACECs under Alternative B would protect relevant and important values critical for watershed and aquatic resource health, including "soil," "water," "fish/riparian," and "vegetation" resources. Without ACEC designation, many of these resources will be left unprotected from overlapping management protections. EPA is concerned about the potential cumulative impacts to watershed and aquatic resource health from eliminating nearly all existing ACEC protections. Recommendations for the FEIS: * Include additional analysis of how the cumulative impact of eliminating nearly all ACEC protections under the preferred alternative could impact watershed health or aquatic resources, including important subsistence fishery resources; and * Include additional ACECs in the preferred alternative where appropriate to prevent cumulative degradation of sensitive resources.	The elimination or great reduction of ACEC designations as seen under Alternatives C1, C2, and D, specifically the lack of associated management actions intended to protect R&I values, would likely increase the cumulative impacts on these resources over what would be experienced under Alternative A due to less overlapping protections for a variety of resources. Analysis throughout Chapter 3 and Appendix T has been updated to reflect this (see Sections 3.2.2 Soils, 3.2.3 Water Resources, 3.2.5 Wetland resources, and 3.2.6 Fish and Aquatic Species). The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	27	Areas of Critical Environmental Concern	211.0100.00	We appreciate that the Analysis of Management Situation (USBLM AMS 2016, pg. 59) recommends adjustments to ACECs to help in sheep habitat management. The AMS specifically recommends that "Snowden Mountain ACEC should be extended to encompass the headwaters of Matthews Creek, an area that all collared sheep in that subpopulation used frequently." The AMS further recommends "(1) the expansion of the Poss Mountain ACEC and (2) the establishment of an additional ACEC near the community of Wiseman" (AMS, USBLM 2016, pg. 60). The AMS also cautions about the area between Midnight Dome and Smith Dome: "If the mining claims on these domes were to become active, it would likely be detrimental to this subpopulation near the community of Wiseman. Subsistence and sport hunter conflicts related to sheep harvest have been ongoing and, especially if sheep populations in the region exhibit a decline in population, require management attention (USBLM AMS 2016, pg. 60)." It appears to the Alaska Chapter that BLM did not consider these recommendations with their decision to prefer Alternative C2. We recommend revising the decision to adequately take into account the findings of the AMS, and adjust the sheep ACECs and/or specially designated sheep management areas accordingly in the final alternative set forth in the RMP/FEIS.	Existing ACECs were reconsidered in light of new data. Any identified changes were described in the ACEC report, available on the plan website. New ACECs were also nominated based on available data and are described in the same report. As ACECs are a land use plan decision, boundaries cannot be adjusted without a land use plan amendment.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	29	Areas of Critical Environmental Concern	211.0100.00	We appreciate that sheep-specific ACECs are retained in Alternative B and appreciate that some of the boundary adjustments noted above in the AMS (pg. 60) would be implemented into the sheep-specific ACECs. We recommend that the BLM reconsider the boundaries of these ACECs in Alternative B for the final RMP/DEIS. Should this aspect of Alternative B not be carried forward into the final RMP/FEIS, we recognize that Alternative C1 proposes a viable alternative by creating the three special designations: Dall Sheep Habitat Area, Dall Sheep Movement Corridor, and Dall Sheep Study Area (pgs. 3-8-, 3-83, 3-86, and Appendix I, pg. I-2).	Existing ACECs were reconsidered in light of new data. Any identified changes were described in the ACEC report, available on the plan website. New ACECs were also nominated based on available data and are described in the same report. As ACECs are a land use plan decision, boundaries cannot be adjusted without a land use plan amendment.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	55	Areas of Critical Environmental Concern	211.0100.00	The Alaska Chapter agrees with the goal and objective of ACECs as listed in Table 2-11 (Page 2-37), and we agree that Alternative B provides needed protections to habitats and connectivity commensurate to their value to wildlife. We support the proposed Alternative B-level of about 4 million acres of ACECs (Table 2-1, pg 2-9). One of the most important features of an ACEC is that notice-level mineral explorations with surface disturbances of <5 acres require a plan of operations and greater permitting scrutiny. If sensitive habitats are not designated as an ACEC, such explorations for locatable minerals may include surface disturbances up to 5 acres in size without a plan of operations, which can result in habitat loss or damage. We believe that the ACEC acreage in Alternatives C1 and C2 is not adequate (C1 = 3% of lands; C2 = 0.6% of lands). We recommend that the selected alternative defined in the final RMP/FEIS include a minimum ACEC area of 30% of the lands in the planning area (Alternative B proposal). We note that Alternative B proposed about 4 million acres of ACECs (Table 2-1, pg 2-9), while Table 3-20 (pg. 3-138) recommends 1.4 million acres be withdrawn from locatable mineral entry. Appendix Table J-7, pg. J39-J48) indicates closures to mineral entry or withdrawal from mineral entry for the ACECs but does not specify the acreages. The final RMP/FEIS should indicate specific acreages recommended for FLPMA withdrawals to support the goals and objectives of the particular ACECs.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Spindler	Mike	The Wildlife Society	None	83	5	Areas of Critical Environmental Concern	211.0100.00	I support the full set of 4 million acres of ACEC's defined in Alternative B. I agree with BLMs analysis of existing and proposed ACECs with the exception of not approving certain additional or expansion proposals. BLM should reconsider approval of the following expansion proposals: Jim River and S. Fork Koyukuk because of tribal and fishery interests; the upper Kanuti ACEC downstream to the refuge boundary, and extension of the Tozitna ACEC boundary to include the entire Kanuti-Kilolitna watershed. I oppose the lack of designation of any significant amount of ACECs in the supposedly "blended" Alternative C1, and abolishment of all existing ACECs in C2. Alternative B has about 30% of the planning area in ACECs, while C1 has only 3% and C2 only 0.6%. A more balanced range of alternatives should have been B=30.1%; C1=15%; C2=10% and D=zero. I support a greater acreage in ACECs because they still allow multiple uses but provide more scrutiny to permitting in order maintain the relevance and importance purposes for which they were established (e.g. fish spawning, caribou calving, habitat intactness, etc.). I support how ACECs bring careful attention to notice-level (< 5 acres) mineral explorations, which in my experience have produced significant and sometimes lasting impacts to fish and wildlife habitat (see photos, above).	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.

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Raskin	David	Friends of Alaska National Wildlife Refuges	None	88	11	Areas of Critical Environmental Concern	211.0100.00	We support the four million acres of ACECs outlined in Alternative B and concur with the BLM analysis of existing and proposed ACECs. We disagree with omitting ACECs in the blended Alternative C1 and no ACECs in C2. Alternative B has about 30% of the planning area in ACECs, while C1 has only 3% and C2 has only 0.6%. A better range of alternatives would B=30%; C1=15%; C2=10%; and D=zero. Increased acreage in ACECs would better protect the unique purposes for which they were established (e.g. fish spawning, caribou calving, habitat intactness)	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Little	Suzanne	The Pew Charitable Trusts	None	98	13	Areas of Critical Environmental Concern	211.0100.00	Areas of Critical Environmental Concern (ACEC). When developing a RMP, BLM must "give priority to the designation and protection of areas of critical environmental concern." To be considered as potential Area of Critical Environmental Concern and analyzed in a RMP alternative, an area must meet at least one "relevance" criteria and one "importance" criteria. The relevance criteria is met if the area has "a significant historic, cultural, or scenic value; a fish or wildlife resource or other natural system or process." Under BLM's guidance, this includes "religious or cultural resources important to Native Americans." Importance criteria is met if the resource has "substantial significance and values," which "generally requires qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern. Areas "meeting at least one relevance criteria and at least one importance criteria must be considered" as potential areas of critical environmental concern under at least one alternative in the resource management plan. Three issues loom regarding BLM's actions on ACEC: 1) By failing to include any areas of critical environmental concern in the agency's preferred alternative, BLM failed to give priority to designation and protection of areas of critical environmental concern; 2) BLM's flawed evaluation of relevance and importance criteria improperly excluded some Tribes' nominated areas from consideration in the RMP; 3) In evaluating nominated areas, BLM failed to adequately consider Tribes' knowledge and expertise. As a result, resources important to planning area Tribes were not provided with the proper protections.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Little	Suzanne	The Pew Charitable Trusts	None	98	14	Areas of Critical Environmental Concern	211.0100.00	The Allakaket Traditional Council nominated a 476,000-acre Jim River area for protection as an ACEC to protect Chinook (King) salmon and chum salmon spawning areas which contain crucial cultural and resource values for the people of Allakaket. The watershed is also an important traditional hunting ground, and supported food security for the people of Allakaket for generations. The BLM itself and the Allakaket Tribe nominated the expansion of the Jim River ACEC which was originally designated based on its high-value fishery, cultural, and recreation resources. According to BLM's ACEC Report of Relevance and Importance, the Jim River area "supports unique incubation, rearing and overwintering habitat essential for maintaining chum and Chinook salmon diversity, in the planning area and in Alaska as a whole." In total, Tribes nominated 1.87 million acres for protection as ACECs, and the BLM and the U.S. Fish and Wildlife Service nominated another 4.49 million acres. However, BLM's Draft Central Yukon Resource Management Plan released on December 11, 2020, eliminates all 18 existing ACECs and established no new protections. BLM should create enduring administrative protections as called for by tribal communities to sustain the diverse and intact ecosystems supporting the traditional and contemporary subsistence way of life.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. This includes a proposed expansion of the Jim River ACEC to 302,000 acres in Alternative B.
Little	Suzanne	The Pew Charitable Trusts	None	98	15	Areas of Critical Environmental Concern	211.0100.00	For nominations of ACECs, the burden of proof to justify relevance and importance falls on the nominator. Inadequate information and support are provided to nominators by BLM. Consequently, several important Tribally nominated ACECs were not judged by BLM to meet this subjective relevance and importance standard despite local knowledge and extensive traditional evidence supporting the extent of importance to more than the local region. BLM should reconsider ACECs nominated but rejected and not evaluated in the DRMP, taking into account traditional knowledge held by Indigenous peoples.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives and considered ACECs nominated by the public for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 out of the 44 ACECs nominated in the ACEC report, covering 3,611,000 acres. For more detail, see Appendix T of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Williams	Frank	No organization name	None	101	6	Areas of Critical Environmental Concern	211.0100.00	All Areas of Critical Environmental Concern (ACEC) proposed in the Preliminary Alternatives Concepts should be adopted in order to adequately protect the planning area's lands, waters, and wildlife. If preferred Alternative C2 were chosen, only the Toolik Lake Research Station ACEC would remain designated. This is grossly inadequate and would be in direct violation of BLM mandate to manage wisely for protection of all natural resources.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.

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Williams	Frank	No organization name	None	101	7	Areas of Critical Environmental Concern	211.0100.00	Strenghten the original ACEC nominations by incorporating traditional ecological knowledge in the review of all of the ACEC nominations.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, and considered ACECs nominated by the public for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 out of the 44 ACECs nominated in the ACEC report, covering 3,611,000 acres. For more detail, see Appendix T of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Costello	Naomi	Evansville Tribal Council	None	107	8	Areas of Critical Environmental Concern	211.0100.00	TCC Tribes nominated several ACECs, including Bishop Creek and other traditional hunting and fishing areas important to Louden Tribal Council (Galena), an expanded Jim River ACEC (Allakaket), and Koyukuk River Tributaries and Yukon River Watersheds (Koyukuk). Each of these ACECs represent important habitats and harvest areas with cultural significance to tribes. The expanded Jim River ACEC appears in Alternative B, but BLM determined that the others were not eligible.12 As Susie Sam testified during the Feb. 3, 2021 hearing, Louden's nominations were mainly watersheds that served as cultural mainstays for tribal members' subsistence lifeway. The nominations were based on the tribal members' unique expertise in the form of traditional and indigenous knowledge and for the purpose of continuing to support the wild food economies that the communities rely on for sustenance. 12 Bureau of Land Management, Central Yukon Resource Management Plan Areas of Critical Environmental Concern Report on the Application of the Relevance and Importance Criteria, 45, 62, 74, 93, 96, 98 (2015) (ACEC Report) To be considered as a potential ACEC and analyzed in an RMP alternative, an area must meet at least one "relevance" criteria and one "importance" criteria (43 C.F.R. § 1610.7-2). The relevance criteria is met if the area has "a significant historic, cultural, or scenic value," (43 C.F.R. § 1610.7-2) including "religious or cultural resources important to Native Americans"13 and subsistence practices in customary and traditional use areas.14 In evaluating whether Tribes' nominations met the "importance" criteria for cultural resources, BLM focused on known sites and did not adequately consider intangible cultural resources or undocumented cultural resources that are significant to Tribes. BLM incorrectly concluded that "cultural significance should not be confused with subsistence importance; subsistence use is accounted for under a unique set of laws and regulations,"15 ignoring that subsistence practices have an essential role in Native American culture with deep spiritual connections, and how the wild food economies contribute to the health and well-being of rural Alaskan Native communities. This statement also contradicts statements elsewhere recognizing the importance of subsistence in supporting cultural systems and the sustainability of rural Alaska Native communities.16 13 Bureau of Land Management, Manual 1613: Areas of Critical Environmental Concern (1988). 14 ACEC Report at 62, 74, 93-94, 96, 98. 15 ACEC Report at 64, 95, 97, 99. 16 DEIS 3-95, 3-196, 3-200, 3-204 We strongly encourage BLM to reevaluate Tribes' nominations for ACECs, affording proper deference and respect to Tribes' expertise and traditional knowledge.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, and considered ACECs nominated by the public for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 out of the 44 ACECs nominated in the ACEC report, covering 3,611,000 acres. For more detail, see Appendix T of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
O'Reilly-Doyle	Kathleen	No organization name	None	112	6	Areas of Critical Environmental Concern	211.0100.00	All Areas of Critical Environmental Concern (ACEC) proposed in the Preliminary Alternatives Concepts should be adopted in order to adequately protect the planning area's lands, waters, and wildlife. If preferred Alternative C2 were chosen, only the Toolik Lake Research Station ACEC would remain designated. This is grossly inadequate and would be in direct violation of BLM mandate to manage wisely for protection of all natural resources.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Sommer-Pedebone	Dena	Gana-A'Yoo, Limited	None	122	2	Areas of Critical Environmental Concern	211.0100.00	Determinations that lands nominated for designation as ACECs meet the ACEC designation criteria must be based upon current and sound science and subjected to scrutiny through public review and comment and consultation with Alaska Native Corporations (ANCs) and Tribes. BLM should disclose all the evidence and factors that it reviewed and considered in proposing to designate of an area as an ACEC so the public may fully review and evaluate the designation. The same is true regarding BLM's determination that special management attention-and the special management measures proposed-are necessary to protect and prevent irreparable damage to the relevant and important values, resources, systems, or processes. Without a clear understanding of all the evidence and factors considered. * The public cannot evaluate whether the area that BLM has proposed to designate as the ACEC is appropriate, * whether the BLM has either excluded lands appropriately included or, * with regard Alternative B-included lands that do not meet the ACEC criteria and should be excluded.	The BLM sought public input on nominating ACECs in 2014 and reviewed the public nominations. The BLM published the background documents of ACEC management plans and fact sheets for the ACECs that have them. Then the BLM published their ACEC report in 2015. During the RMP alternatives development process, the BLM considered which areas have R&I values and also need special management. Based on that process, the BLM developed a range of ACEC alternatives. The Alternative E Proposed Plan would require a Notice for all locatable mining plans of development, and considers allocations within the 100-year floodplains.
Sommer-Pedebone	Dena	Gana-A'Yoo, Limited	None	122	3	Areas of Critical Environmental Concern	211.0100.00	The public cannot evaluate whether there is truly any threat of irreparable damage to the identified values, resources, systems, or processes, and whether the proposed special management measures are necessary to protect those values, resources, systems, or processes and prevent such irreparable damage. In proposing any designation of ACECs and their management, BLM must clearly identify the threats of irreparable damage that it proclaims are sufficient to warrant ACEC designation, including the source of the threat, the likelihood of irreparable damage from that source, and other relevant factors, as well as the evidence underlying that analysis. The Draft RMP's discussion of the ACEC proposals under certain of the action alternatives, and particularly Alternative B, fall short in this regard.	**Appendix T**, Areas of Critical Environmental Concern, evaluates the environmental consequences of Alternatives A, B, C1, C2, D, and E on proposed ACECs and their R&I values.

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Sommer-Pedebone	Dena	Gana-A'Yoo, Limited	None	122	4	Areas of Critical Environmental Concern	211.0100.00	In addition, the Draft RMP fails to provide justification for why the measures identified in Appendix J, Table J.2, are properly "special management measures" and support designation and management of the identified areas as ACECs. As stated in BLM's ACEC Manual, reasons for deciding not to provide special management attention may include, "Special management attention is not required to protect the potential ACEC because standard or routine management prescriptions are sufficient to protect the resource or value from risks or threats of damage/degradation." BLM Manual 1613.33E. In most cases, there appears to be nothing "special" or "unique" about the management measures proposed in Appendix J, Table J.2, for these areas; many of the measures could be considered standard or routine, and in fact in many cases also are proposed as part of the management of other lands in the Planning Area.	While the proposed measures may not appear to be particularly "special" or "unique" when compared to management applied to other lands in the planning area, these management prescriptions applied to ACECs are not applied to all lands in the planning area. "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. These are management actions that would not be necessary if the R&I values were not present (BLM Manual 1613).
Hasselbach	Linda	National Park Service - Alaska Regional Office	None	123	4	Areas of Critical Environmental Concern	211.0100.00	Retain and expand the existing ACECs. These help conserve important wildlife habitat, especially for Dall's sheep. Sheep populations declined after a couple of difficult winters approximately ten years ago and have still not returned to pre-decline levels. Prioritizing the conservation of sheep management in the ACECs will not only help the overall populations within the corridor but also in adjacent federal public lands, like Gates of the Arctic NPP, where similar sheep declines have been reported.	Existing ACECs were reconsidered in light of new data. Any identified changes are described in the ACEC report, available on the plan website. New ACECs were also nominated based on available data and are described in the same report. As ACECs are a land use plan decision, boundaries cannot be adjusted without a land use plan amendment.
Hasselbach	Linda	National Park Service - Alaska Regional Office	None	123	5	Areas of Critical Environmental Concern	211.0100.00	Create the "Jim River" ACEC. Expanding this ACEC to the north along its northwest edge to abut NPS lands in Gates of the Arctic NPP would promote ecological connectivity between conservation units (NPS, BLM ACEC, and Kanuti National Wildlife Refuge (NWR)).	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see Appendix T of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Hasselbach	Linda	National Park Service - Alaska Regional Office	None	123	6	Areas of Critical Environmental Concern	211.0100.00	The proposed Midnight Dome/Kahalbuk ACEC near Wiseman includes winter and summer habitat for sheep that spend at least part of the year in Gates of the Arctic NPP (Arthur 2014, Schmidt et al. 2012, Schmidt et al. 2013). Expanding Nugget Creek and Midnight ACECs towards one another in the "corner" of BLM land that abuts Gates of the Arctic NPP would be a good idea, but that covers a pretty solid block of existing mining claims. We suggest the addition of the Midnight Dome ACEC to the list to retain or expand ACECs, and include a provision for limited summer (May-June in particular) OHV use for all of those on the east side of the park.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see Appendix T of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	7	Areas of Critical Environmental Concern	211.0100.00	Within the planning area, the Bureau must give priority to the designation and protection of ACECs.18 ACECs are "areas within the public lands 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 life and safety from natural hazards."19 In selecting Alternative C2 as its preferred alternative-which designates only one Research Natural Area-the Bureau did not meet its obligation. 18 43 U.S.C. § 1712. 19 43 C.F.R. § 1601.0-5(a).	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	8	Areas of Critical Environmental Concern	211.0100.00	Despite the Bureau's recognition of the many potential ACECs located throughout the planning area, the agency's preferred alternative fails to meet its obligation to give priority to the designation and protection of ACECs. The preferred alternative would designate only one ACEC, the Toolik Lake Research Natural Area, and would result in significant degradation of relevant and important values in the planning area.30 In stark contrast, Alternative B would provide the greatest protection for important resources and landscapes by designating 31 ACECs to "receive direct protection via ACEC-specific management actions."31 30 Draft RMP at 3-158. 31 Id. The Bureau should revisit its analysis of those Tribally nominated areas that were excluded from consideration as potential ACECs in the Draft RMP and select a Proposed RMP that designates significantly more ACECs.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.

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Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	9	Areas of Critical Environmental Concern	211.0100.00	Tribes in the planning area, including members of the Tribal Commission, submitted ACEC nominations that the Bureau excluded from consideration as potential ACECs in the Draft RMP. The Bureau determined that all these nominated areas did not to meet the relevance and importance criteria and dismissed them from further consideration. The language of these dismissals is strikingly similar and is not responsive to the particularities of each nominated area. Additionally, the analysis is conclusory and the Bureau made many of its decision based on a purported lack of data, in direct contravention of the Tribal nominations detailing the fish and wildlife values present in those areas. The Bureau's analysis in the 2015 ACEC Report is incomplete and fails to give proper deference to Tribes' knowledge and expertise. Therefore, the Bureau should reconsider its evaluation of the following nominated areas in consultation with the Tribes that nominated these areas.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see Appendix T of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	11	Areas of Critical Environmental Concern	211.0100.00	The Koyukuk Tribal Council nominated the Yukon River Watersheds for consideration as an ACEC because of the soil, water, fish, riparian, wildlife, and cultural values present in the area.37 The Tribal Council highlighted its members' traditional use of the abundant animals, fish, plants, and woods throughout the watershed.38 In nominating the area, the Koyukuk Tribal Council echoed the Louden Tribal Council's concerns about opening new lands to mining activities and similarly emphasized the interconnections between the "air-water-land-animals-fish-plants- people"39 stating that, its "concerns about mining and climate change go beyond our local needs and extend in all directions."40 The nominated area holds "significant historical and culture value to the Koyukukon people" and the subsistence practices reliant upon the resources in the area support important subsistence and cultural practices.41 37 Id.at 96-97. 38 Id. at 96. 39 Id. 40 Id. 41 Id. Again the agency dismissed the nomination because of a lack of data indicating that the animal or fish species are significant or relevant beyond a local scale.42 But this conclusion ignores the expertise provided in the Tribal Council's nomination. Despite recognizing that the water quality and soil resources in the nominated area are pristine, undisturbed, and "would be considered unique on a national scale," the Bureau declined to consider the area as a potential ACEC because pristine soils and waters are found throughout the planning area.43 However, as the Tribal Council identified in its nomination, the water, fish, and animal resources important to this area are all interconnected and if more land is open to timber and mineral extraction operations-as this RMP proposes to do-those resources will be put at risk. 42 Id. at 97. 43 Id.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see Appendix T of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	12	Areas of Critical Environmental Concern	211.0100.00	The 16,200 acre Bishop Creek area was nominated for consideration as an ACEC by the Koyukuk Tribal Council and the Louden Tribal Council to protect "the abundance, health, and accessibility of fish and wildlife species" which form the foundation of their culture and food security.44 The nomination also raised concerns about the negative impacts of increased mining activities in the area.45 As the nomination asserted, "the importance of the health of the land and waters for supporting healthy moose, fish, and so forth, cannot be overstated."46 The nominated area is one of historical and cultural significance to the Tribes and has important fish and riparian resources that the Tribes sought to protect through ACEC designation. 44 Id. at 98. 45 Id. 46 Id. But the Bureau found that there was a lack of data to support "the presence of fish species," in Bishop Creek because the State of Alaska does not have any fish inventory reports for the area in its databases.47 Despite the Bureau's acknowledgement that "due to the area's remote location, [the] riparian resources are expected to be pristine and fully functional," the Bureau disregarded the Tribes' expertise and relied on a lack of data as justification for not protecting the pristine aquatic resources.48 This contradicts the information provided by the Tribal Councils in the nomination letter discussing the abundance and importance of fish species in Bishop Creek to the members of both the Louden and Koyukuk Tribes. 47 Id. 48 Id. at 99.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see Appendix T of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	13	Areas of Critical Environmental Concern	211.0100.00	The Louden Tribal Council nominated 43,100 acres of the Tribe's traditional hunting and fishing area as an ACEC because of the abundant animal, fish, and cultural values found throughout the area.32 Given the existing and projected impacts resulting from climate change, the Louden Tribal Council sought protection for the Tribe's traditional hunting and fishing areas to protect the lifeways of its members. "The welfare and safety of our tribe is dependent upon the health of the lands and waters and we wish to insure that management decisions protect our lifeways, now and into the future."33 The Tribal Council urged the Bureau to protect the significant cultural and historic value of the nominated area by designating it as an ACEC. 32 Bureau of Land Mgmt., Central Yukon Resource Management Plan, Areas of Critical Environmental Concern Report on the Application of the Relevance and Importance Criteria, 95 (Nov. 2015) [Hereinafter "ACEC Report"], available at Central Yukon RMP/EIS (blm.gov). 33 Id. at 94. In nominating this area, the Louden Tribal Council recognized that if lands within the nominated area with mining potential were opened to extractive development, there would be harmful and long-lasting repercussions. The Tribal Council highlighted that mining activities would result in "associated roads," "development," "waste storage facilities," "and other factors" that pose "grave threats" to the resources central to the Tribe's traditional lifeways. For that reason, the Tribal Council requested that no mining activities take place in the "watersheds we are dependent on for traditional harvest."34 34 Id. The Bureau found that the Louden Tribal Council's nomination did not meet the relevance and importance criteria for consideration in the Draft RMP as a potential ACEC. This decision was seemingly made based on a lack of evidence. Despite the Tribe's explanation about important subsistence fish species, the Bureau found that "data is lacking to support the presence of fish species," and that "the status of riparian resources is unknown," but concluded that "due to the area's remote location, riparian resources are expected to be pristine and fully functional."35 As for wildlife values, the Bureau concluded that "there are currently no records that suggest this area is relevant to those resources on a landscape scale."36 However, in its nomination of this area the Tribal Council clearly described the prevalence and abundance of those resources. The Bureau's decision not to consider the nominated area in the Draft RMP inappropriately disregards the Tribal Council's expertise. 35 Id. at 95. 36 Id.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see Appendix T of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).

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Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	14	Areas of Critical Environmental Concern	211.0100.00	For all of these nominated areas, the Bureau improperly analyzed their cultural significance. The Bureau determined that the cultural values that Tribes' nominations sought to protect did not meet the relevance criteria by relying on a conclusory and inaccurate characterization of Traditional Cultural Properties. The Bureau asserted that the nominated areas did not meet the relevance criteria because: "It is not likely that an entire drainage would be considered a Traditional Cultural Property or sacred site; these are typically discrete landforms or specific locations relating to traditional religious practices or significant events in the traditional belief system, such as places of cultural origin." However, this definition is inappropriately limiting. Traditional Cultural Properties can take many forms and watersheds which carry historical and ongoing cultural significance for Tribes could be eligible for inclusion on the National Register of Historic Places as Traditional Cultural Properties.51 The Bureau also dismissed the nominated areas' cultural values because according to the agency there were "no known cultural resources" in the nominated areas.52 However this directly contradicts both the nominating Tribes' explanation of the important cultural values in the nominated areas and the Bureau's own acknowledgement that there are cultural resources throughout the planning area. 49 Id. at 95, 97, 99. 50 Id. at 99. 51 Department of the Interior, National Park Service, National Register Bulletin 38, Guidelines for Evaluating and Documenting Traditional Cultural Properties, available at https://www.nps.gov/subjects/nationalregister/upload/NRB38-Completeweb.pdf. 52 ACEC Report at 95, 97, 99. Inexplicably, the agency repeatedly stated that, "[c]ultural significance should not be confused with subsistence importance because subsistence use is accounted for under a unique set of laws and regulations."53 While there are various regulatory schemes governing subsistence harvests, the existence of those schemes has no bearing on the cultural importance of subsistence activities for Tribes. As the Louden Tribal Council explained in its ACEC nomination: "The lands and waters we depend on for traditional harvest are necessary for practicing what the federal government refers to as our 'subsistence priority.' We call it life."54 53 Id. 54 Id. at 94.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see Appendix T of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	15	Areas of Critical Environmental Concern	211.0100.00	The Bureau's preferred alternative fails to meet its obligation to prioritize the designation and protection of Areas of Critical Environmental Concern. It only designates one ACEC in the entire planning area.55 This does not provide sufficient protection for the important subsistence and cultural resources present throughout the planning area. The Bureau should reevaluate its decision to select a preferred alternative that designates only one ACEC and develop a Proposed RMP similar to Alternative B, which designate 31 ACECs and would result in the greatest protection of resources across the planning area.56 Alternative B prioritizes the designation of several important ACECs that are left out of the preferred alternative. 55 Draft RMP and EIS at 3-158. 56 Id.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	16	Areas of Critical Environmental Concern	211.0100.00	For example, the Galena Mountain Caribou ACEC including the proposed expansion, which was nominated by the Louden Tribal Council, would receive protection under Alternative B, but not under the Bureau's preferred alternative. Under Alternative B, 62,000 acres (83 percent of the potential ACEC) would be designated as an ACEC and receive additional protections.57 This would be 43,000 more protected acres than under the no-action alternative.58 Despite the importance of this area for the Galena Mountain caribou herd, the preferred alternative does not designate the area as an ACEC. Instead, the preferred alternative opens 75,000 acres in the nominated area to mineral entry (locatable and fluid), with 29,000 of the locatable mineral entry lands being state selected and likely to transfer into state ownership.59 The Proposed RMP should formally designate the Galena Mountain ACEC. 57 Draft RMP and EIS Appendix T at T-11. 58Id. 59 Id. at T-12.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see Appendix T of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	17	Areas of Critical Environmental Concern	211.0100.00	Similarly, the Jim River ACEC, including an expansion of the existing ACEC boundaries, was nominated by both the Bureau and the Allakaket Tribal Council.60 The Allakaket Tribal Council nominated the retention and expansion of the Jim River ACEC because it "is culturally significant and has been traditionally hunted and fished by the people of Allakaket."61 The Alatna River area, included in the proposed ACEC, provides important moose, caribou, Dall sheep, whitefish, cisco and sheefish habitat.62 The Siruk and Senyalak tributaries, also included, provide important salmon spawning grounds.63 However, despite the area's current ACEC designation and the proposed expansion to further protect cultural resources, under the preferred alternative, none of the potential area would be designated or receive protection.64 Instead, the area would be open to mineral (locatable and fluid) and commercial timber development.65 Again, this proposed ACEC should receive formal designation in the Proposed RMP. 60 ACEC Report at 44-45. 61 Id. at 45. 62 Id. 63 Id. 64 Draft RMP and EIS Appendix T at T-21, T-22. 65 Id. at T-22.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see Appendix T of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	18	Areas of Critical Environmental Concern	211.0100.00	In a few instances, there is overlap between Tribally nominated areas that the Bureau rejected and potential ACECs evaluated in the Draft RMP. For example, the proposed Galena Mountain Caribou ACEC overlaps with land nominated by the Louden Tribal Council,66 and the proposed Indian River ACEC overlaps with land in the Koyukuk River Tributaries area proposed by the Koyukuk Tribal Council.67 However, neither of these proposed ACECs receives protection in the Draft RMP.68 The Tribally nominated areas should be designated in full, or alternatively, any proposed ACECs with land overlapping Tribally nominated areas should be designated as ACECs to fully protect the relevant and important values in those areas. 66 ACEC Report at 91-92. 67 Id. at 63. 68 Draft RMP and EIS at Appendix T at T-12, T-17. The Bureau must revisit its analysis of Tribally nominated areas that were excluded from consideration as ACECs in the Draft RMP and develop a Proposed RMP that designates the ACECs necessary to protect the cultural and subsistence resources identified by planning area Tribes.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see Appendix T of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).

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Richards	Frank	Alaska Gasline Development Corporation	None	138	4	Areas of Critical Environmental Concern	211.0100.00	Additional ACEC Designations are Not Appropriate or Necessary - Implementation of additional ACEC locations are not appropriate or necessary to protect the resources. Issue: a. Existing federal and state statutes and regulations, and the unlikelihood of significant activities in these remote areas, makes additional ACEC designations inappropriate and unnecessary. b. The Proposed BLM RMP and Final EIS considers a range of ACEC designation options across alternatives, including at least one alternative that recommended designating all potential ACECs, and provided a comparison of the effects and tradeoffs associated with each alternative (Final EIS, Section 3.4.1). This work is consistent with BLM requirements. As noted in BLM's EIS (page 2-91), ACEC designation is not needed to protect resource values, because the remoteness and lack of infrastructure and facilities in Alaska as well as a low present and future potential for development significantly reduces risks to the resources. Standard management prescriptions in the Proposed Plan would provide adequate protection for those resources. c. The 'No More' clause in the Alaska National Interest Lands Conservation Act (ANILCA) bars setting aside additional public domain lands. AGDC encourages the BLM to honor the spirit and language of ANILCA Sections 101(b) and 1326 (a) & (b), which bars the BLM from setting aside public domain land and precluding multiple use. d. AGDC agrees with the following conclusion in the Bering Sea Western Interior RMP ROD: The decision not to designate any Areas of Critical Environmental Concern (ACECs) is consistent with FLPMA and BLM guidance. While FLPMA Section 202(c)(3) directs the BLM "give priority to the designation and protection of areas of critical environmental concern" during the development and revision of land use plans (43 U.S.C. 1712(c)(3)), the agency is not required to designate all proposed ACECs even if relevant and important values are present (BLM Manual § 1613.23). The BLM complied with agency policy that requires all ACECs with R&I be considered for designation in at least one alternative (BLM Manual § 1613.22.B). The Proposed RMP and Final EIS considers a range of ACEC designation options across alternatives, including at least one alternative that recommended designating all potential ACECs, and provided a comparison of the effects and tradeoffs associated with each alternative (Final EIS Section 3.4.1). Consistent with the BLM ACEC Manual § 1613.33.E, the Proposed RMP and Final EIS documents, for each proposed ACEC, that special management attention is not required to protect the R&I values, because the remoteness and lack of infrastructure and facilities in Alaska as well as a low present and future potential for development significantly reduces the risk to the R&I's values and, as a result, the standard management prescriptions in the Proposed Plan would provide adequate protection for those resources (Final EIS, p. 2-91, pp. 3-154 to 3-171). This decision is well within the broad discretion afforded to the BLM under FLPMA and agency guidance to determine whether or not designation of ACECs is appropriate in a land use plan. Resolution: AGDC requests BLM not designate any ACECs. Existing regulations and BLM leasing practices are extensive and fully adequate for protection of the resources while balancing opportunities for responsible development. Additional blanket restrictions could have ongoing and long-lasting consequences, and projects can be better considered and evaluated by BLM on a case-by-case basis. If BLM does decide to designate additional ACECs, AGDC requests BLM make it clear Alaska LNG Project ROW locations and associated temporary workspaces, access roads, material sites, pipe storage yards, and other ancillary facilities are exempt from any additional land use restrictions that are more stringent than those already included in the Project EIS and BLM ROW grant, permit stipulations, and regulations.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Nickoli	Shaelene	Dineega Corporation	None	140	1	Areas of Critical Environmental Concern	211.0100.00	We recommend that BLM work closely with tribal partners and Native corporations in the communities because of our traditional and detailed knowledge about the land, plants, birds, fish, and animals that live on this land, we will best identify the ACECs. This land is our cultural way of living and because of our spiritual and traditional connections with this land, we are against opening BLM lands for development, as the lands are mainly watersheds, we must protect our traditional ways of life for our future generations. By doing so, we request BLM to reject preferred alternative (C2), being that it does not offer the best protection. We would prefer Alternatives A and B. We request that BLM redo this plan with prioritizing the communities ACECs as well as eliminating preferred alternative (C2), and using preferred alternatives A and B, to take a cautionary approach to guarantee conservation of our lands.	To be considered for designation as an ACEC, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which were developed considering the ACECs nominated for designation, including both internal and external nominations. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Cole	Jeanie	Alaskans for Wildlife	None	142	6	Areas of Critical Environmental Concern	211.0100.00	Alternative C1 drops numerous existing ACECs and RNAs. FLPMA instructs the BLM to prioritize ACECs in their land use plans. What is the rationale for dropping so many existing ACECs? Has management of these areas been problematic in the past?	To be considered for designation as an ACEC, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated reasonable range of alternatives, which were developed considering the ACECs nominated for designation, including both internal and external nominations. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Cole	Jeanie	Alaskans for Wildlife	None	142	7	Areas of Critical Environmental Concern	211.0100.00	Many of the ACECs were created decades ago, when data was more limited. We understand that some of the old Dall sheep ACEC boundaries were not located to be protective of the most important habitats. Where new data is available, ACEC boundaries should be adjusted to include the most important habitats for the species of concern.	The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Propos
Cole	Jeanie	Alaskans for Wildlife	None	142	8	Areas of Critical Environmental Concern	211.0100.00	It is not apparent how river ACEC boundaries in Alternative C1 were determined. On Maps 2.20 and 2.21 river ACEC boundaries appear as disconnected dots. Our assumption is that the boundaries in Alternative C1 are the 100-year floodplains or some riparian buffer proxy as described in Appendix H. According to Appendix H.1 the 100-year floodplain is difficult to accurately map without extensive ground surveys. This seems like a difficult ACEC boundary to manage unless BLM is going to commit to extensive ground surveys. We recommend that river ACEC boundaries be based on watershed boundaries as in Alternative B. Using watershed boundaries is more protective of rivers and creates a more easily managed boundary. Watersheds represent an integrated landscape where what happens in the upper reaches affects everything downstream. The BLM's own Water Resource Program Strategy: Focus on Integration 2015-2020 promotes a landscape approach based on watershed boundaries. 43 CFR 3809 requires a mining plan of operation in ACECs even for notice level activities. Given that most of the alternatives recommend revocation of the ANCSA d(1) withdrawals, many of the proposed ACECs will be open to mineral entry once state selections are dropped. The additional protection and extra scrutiny required of permitting actions in ACECs is another reason to increase the acreage of ACECs in the preferred alternative.	The BLM appropriately evaluated a reasonable range of alternatives, which were developed considering multiple versions of the ACECs nominated for designation. Under Alternative E, the Proposed Plan, certain aquatic ACEC boundaries were designated to match watershed boundaries as suggested. However, some management prescriptions still apply only within the 100-year floodplain. Whether future proposed implementation-level actions would occur within the 100-year flood plain and any resulting impacts would need to be determined through further implementation-level analysis.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Gestring	Bonnie	Earthworks	None	146	34	Areas of Critical Environmental Concern	211.0100.00	Twenty-four Alaska Native Tribes have lived in this region for thousands of years, and continue to sustainably manage use of the fish, plants and animals as well as the land. Through the land use planning process, local Tribes asked the BLM to designate more than 4 million acres of Areas of Critical Environmental Concern (ACECs) to protect important watersheds and traditional tribal lands vital to community survival. However, the BLM has not included any existing or community-nominated conservation areas in its preferred plan for this region of western Alaska. Instead, its proposal would eliminate 3,591,000 million acres of existing conservation lands and open up nearly 13.1 million acres to mining activity. The RMP's failure to adequately protect these unique watersheds could have serious impacts on wildlife habitat and water quality for critical fish resources and community water sources. In fact, the BLM, itself admits that under the preferred alternative: Protection of R&I values across all ACECs would be greatest under Alternative B, given that each of the 31 potential ACECs would be designated and would receive direct protection via ACEC-specific management actions. The potential for degradation of R&I values would be greatest under Alternative D, followed by Alternative C2, given that no potential ACECs would be designated under Alternative D and one ACEC/RNA would be designated under Alternative C2. Alternative A would provide greater protection of R&I values than Alternatives C1 and C2, given that more potential ACECs would be designated and would thus receive more direct protection via ACEC-specific management actions. (DEIS, p. 3-158)	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Gestring	Bonnie	Earthworks	None	146	36	Areas of Critical Environmental Concern	211.0100.00	The BLM needs to create a more balanced plan that includes conservation of community-nominated areas. Adverse impacts to wilderness characteristics from the failure to list ACECs for the planning area, would result from actions that would allow new development and access, cause increased noise levels, introduce visual change to the existing landscape, and increase the potential for human interaction, as these could affect naturalness, solitude, and opportunities for primitive recreation. Management actions such as woodland harvest, OHV use, mineral development, ROW authorizations, and construction of structures in the planning area could result in these types of impacts.37 37 U.S. Department of the Interior Bureau of Land Management, Bering Sea-Western Interior Resource Management Plan and Environmental Impact Statement (draft), vol. 1 (Anchorage: U.S. Department of the Interior Bureau of Land Management), March 2019. The DEIS, therefore, fails to create a more balanced plan that includes conservation of community-nominated areas. Instead, the RMP replaced decades-old management that included over 4 million acres of ACECs that lost protection. The Federal Land Policy and Management Act (FLPMA) requires BLM to manage public lands in a manner that protects environmental qualities including important wildlife habitat,38 and that when developing and revising its land use plans, BLM gives priority to the designation and protection of ACECs. By arbitrarily eliminating ACECs that meet the statutory criteria for designation based on a political strategy the BLM is in violation of this statutory mandate. 38 See, 43 U.S.C. 1701.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Gestring	Bonnie	Earthworks	None	146	60	Areas of Critical Environmental Concern	211.0100.00	The Preferred Alternative fails to protect relevant and important R&I values in Areas of Critical Environmental Concern; ACEC designations are necessary to protect unique, fragile, and crucial resources. Areas of Critical Environmental Concern (ACECs) are an important management tool for the BLM in the land use planning process. FLPMA requires the agency to prioritize designating and protecting these areas. Yet the preferred alternative (C-2) proposes to eliminate all existing Areas of Critical Environmental Concern (ACEC), and forego virtually all proposed ACECs (the Toolik Lake NRA will become an ACEC), without demonstrating that these resources will be adequately protected. The BLM's 2015 ACEC analysis identifies numerous existing and nominated ACECs that provide "crucial" salmon, whitefish, Dolly Varden or sheefish habitat.63The ACEC analysis states that permafrost underlies most of these ACECs, and the soils around the upwelling and downwelling areas associated with spawning habitat in these ACECs are "unique and fragile," and that "any disturbance" of these soils would affect the spawning area's flow regime and would negatively affect egg survival. The report emphasizes that this habitat is "essential" for "maintaining salmon diversity in the planning area and in Alaska as a whole,"64 and further describes the regional and state-wide importance of these populations, including the population of sheefish in the proposed Pah River ACEC that are considered "genetically unique" (ACEC, p. 4) maintaining salmon spawning and rearing habitat along Dakli and Wheeler Creeks is "crucial for the species longevity," and the whitefish spawning habitat in Alatna River ACEC is the only documented spawning area in the upper Koyukuk drainage (ACEC, p. 3) 63 See Table 1 & 2 (ACEC Report, p. 3-6) Existing ACECs include Hogatza River Tributaries, Indian River, Jim River, Sulukna River, Tozitna River and nominated ACECs include Alatna River, Hogatza River expansion, Indian River expansion, Jim River expansion, Klikhtentotzna Creek, Sethkokna River, South Fork Koyukuk River, Sulukna River, Telsitna-Titna, Upper Teedriinjik, Pah River and Wheeler Creek. 64 ACEC Report, Jim River, (p. 46); South Fork Koyukuk River (p. 49); Upper Teedriinjik River (p. 57). Yet, the preferred alternative would eliminate existing ACEC designations and forego nominated ACEC designations for these important resources, even though the DEIS provides no data or analysis to demonstrate how this "crucial" spawning habitat would be protected from "any disturbance," without management actions that specifically preclude resource extraction activities.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see **Appendix T** of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).

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Gestring	Bonnie	Earthworks	None	146	61	Areas of Critical Environmental Concern	211.0100.00	The DEIS also fails to provide any supporting data or analyses to demonstrate that mitigation measures or adaptive management are sufficient to prevent "any disturbance" of these soils or hydrologic systems - particularly the ACECs in which permafrost underlies the resource. The DEIS highlights the current impacts of mining in the planning area: "Surface mining, in the form of placer mining and gravel pits, is currently ongoing within the planning area and is concentrated in watersheds along the Dalton Highway and in the Hogatza River watershed. Surface mining has localized yet severe impacts on soil resources which can last for decades, if not longer. Surface mining involves drastic alteration of vegetation, soils, and subsurface materials. It can result in the complete loss of organic top soils and vegetation, which impairs water infiltration into the soils. This creates a subsequent alteration in surface and subsurface hydrology."65(emphasis added) 65 U.S. BLM, Analysis of Management Situation Central Yukon Resource Management Plan, April 2016, p. 13 It also forecasts future impacts from mining, "Surface mining continues in the planning area with an increase in permitted operators in the past 5 years. This has resulted in more soils being negatively impacted by affecting infiltration and permeability rates, moisture storage, and stability of upland soils." "Surface mining is expected to continue in the planning area and increase if gold prices increase. These activities will continue to negatively affect soil resources, especially in wetland and riparian areas."66(emphasis added) 66 Ibid. The AMS report also highlights the difficulty and length of time it takes to reclaim mining-disturbed areas, stating that, "Planning area soils are thin and fragile. Once damaged, recovery to an original state may require the span of several human lifetimes. Disturbance to ice and moisture-rich soils frequently results in extensive erosion, further retarding recovery."67And, "post-reclamation recovery of mine sites to a condition usable by fish can take decades.68 67 Ibid. p. 14 68 Ibid. p. 50 The AMS also describes how current management activities are not preventing impacts to floodplains and wetlands because, for example, "notice level mining operations do not follow the minimization, restoration or protection standards because NEPA is not required on this type of activity."69 It finds that "Within the Central Yukon Planning Area water quality is not being maintained in many streams that have been altered by placer mining," and that "mitigation to date has been ineffective in regard to non-point source pollution"70The AMS specifically recommends that the RMP "consider maintaining existing withdrawals or establishing new withdrawals from mining in some areas to protect floodplains and riparian-wetlands."71 69 Ibid. p. 220, 222 & p. 225 70 Ibid. p. 224 71 Ibid. P. 224 While mitigation measures and adaptive management may attempt to reduce impacts, they do not afford the level of protection necessary to protect from "any disturbance" the crucial, unique and fragile spawning resources identified within the existing and nominated ACECs. For this reason, the BLM should retain the existing ACECs and RNAs and associated mineral withdrawals, formally designate the nominated ACECs and RNAs and associated minerals withdrawals, and recommend mineral withdrawals for any lands within these designated areas that aren't already covered.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see **Appendix T** of this RMP/EIS (ACECs) and the ACEC report, available on the BLM ePlanning website.
Gestring	Bonnie	Earthworks	None	146	75	Areas of Critical Environmental Concern	211.0100.00	Burden of proof for Relevance and Importance. For nominations of Areas of Critical Environmental Concern (ACEC), the burden of proof to justify relevance and importance falls on the nominator. Inadequate information and support is provided to nominators by BLM concerning the requirement for nominations to be 'more-than- regionally important'. Consequently, many Tribally-nominated ACECs were not judged by BLM to meet this subjective relevance and importance standard despite local knowledge and extensive traditional evidence supporting the extent of relevance to more than the local region.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see Appendix T of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	3	Areas of Critical Environmental Concern	211.0100.00	Areas of Critical Environmental Concern (ACECs): Alternative B more accurately identifies critical areas of high soil, water, fish/riparian, wildlife, vegetation, or other values that directly influence the ecological integrity of Koyukuk, Nowitna, and Innoko NWRs. We support the full extent of the BLM-nominated ACECs identified within watersheds that feed into the Koyukuk, Nowitna, and Innoko NWRs and protect refuge resources including Chinook, coho, and chum salmon, sheefish, whitefish, and other fish species. These ACECs include: Hogatza River Tributaries, Klikhtentotzna Creek, Huslia River, Wheeler Creek, Indian River, Sulukna River, and Sethkokna River. The added permitting scrutiny that an ACEC may afford to these watersheds is necessary for Koyukuk, Nowitna, and Innoko NWRs to fulfill ANILCA purposes. Additionally, the Galena Mountain ACEC encompasses core calving grounds of a small montane herd that we share between BLM and FWS lands. FWS provides special management on Koyukuk NWR for this herd (e.g. lichen protection zone). If ACECs identified in Alternative B occur on any lands where a withdrawal is revoked and if the State of Alaska, through the Statehood Act, or an ANCSA corporation, through the ANCSA, desires conveyance of the parcels, we recommend the ACECs be exempted from the withdrawal or conveyance. Alternatives C 1/C2/D do not adequately protect ACECs, watersheds, or caribou ranges to allow Koyukuk, Nowitna and Innoko NWRs to achieve the legal mandates established by ANILCA (to "maintain diversity of fish, wildlife and habitats; maintain water quality and quantity; provide for subsistence opportunity; and, fulfil international conservation treaty obligations").	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	27	Areas of Critical Environmental Concern	211.0100.00	Areas of Critical Environmental Concern * The ACECs identified in this plan accurately identify critical areas of high soil, water, fish/riparian, wildlife, vegetation or other value that directly influence the ecological integrity of the Koyukuk, Nowitna, and Innoko NWRs. Recognition and management of ACECs under Alternative B is preferred because these: o contribute to ecosystem integrity in the region surrounding Koyukuk, Nowitna, and Innoko NWRs, o protect critical habitat identified in BLM lands adjacent to the Refuges, and o support the mission, objectives and plans of the Koyukuk, Nowitna, and Innoko NWRs. Lack of recognition or protection of these critical resources constitutes a failure to consider plans and policies of adjacent conservation system units. * We recommend recognition and management of all ACECs, particularly those directly associated with Koyukuk, Nowitna, and Innoko NWR wildlife populations. These include (but are not limited to): Huslia, Hogatza River Tributaries, Wheeler Creek, Klikhentotzna Creek, Indian River, Dulbi River, Galena Mountain, and Sulukna River and Sethkokna River.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.

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Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	28	Areas of Critical Environmental Concern	211.0100.00	We strongly recommend amending Alternative B to prevent full revocation of PLOs 5173, 5179, 5180, 5184, and 5186 for the protection of ACECs in the vicinity of Koyukuk, Nowitna, and Innoko NWRs. If ACECs as identified in Alternative B occur on any lands where a withdrawal is revoked and if the State of Alaska, through the Statehood Act, or an ANCSA corporation, through the ANCSA, desires conveyance of the parcels, we recommend lands within ACECs be exempted from the withdrawal or conveyance.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	29	Areas of Critical Environmental Concern	211.0100.00	We request BLM manage the lands within the proposed ACEC as lands with wilderness characteristics (LWC) and to protect wilderness characteristics as a priority over other multiple uses.	Areas of critical environmental concern and lands with wilderness characteristics have two sets of criteria. One is not a substitute for the other. However, where wilderness characteristics are present, the BLM considers management as described in Chapter 2.
Magee	Susan	State Of Alaska	None	165	40	Areas of Critical Environmental Concern	211.0100.00	ACEC Designations - Issues: o The State supports the intent of the following ACECs to protect Dall sheep and caribou habitat: West Fork Atigun, Toolik Lake, Galbraith Lake, Snowden Mountain, Sukakpak Mountain, Nugget Creek, Poss Mountain, and the Galena Mountain ACECs. For those ACECs partially or wholly within the boundaries of PLO 5150, State management will continue to be in place after PLO 5150 is lifted to protect these resources. o ANILCA context must be taken into consideration when evaluating the need for ACECs. o Existing environmental laws and federal and state regulatory authorities must be considered in ACEC effects analyses and when determining the need for special management. o Proposed ACECs are not located or discretely sized to target the resource/value identified as needing protection. o How the ACECs meet the designation criteria is not clearly spelled out in the draft RMP. o Failure to coordinate/consult with the State, specifically ADF&G, on the identification, designation, and special management for ACECs designated for fish and wildlife values violates the MMOU between ADF&G and BLM, as well as the regulations found in 43 CFR Part 24 Department of the Interior Fish and Wildlife Policy: State and Federal Coordination, especially 43 CFR 24.4(c). o Inconsistencies exist between ACEC sizes, designation values, and special management between text in Chapters 2 and 3 and Appendices J and T. * Resolution: o Configure the following ACECs in the proposed final RMP to identify discrete targeted areas to address specific wildlife needs, sized in accordance with Alternative A: West Fork Atigun, Toolik Lake, Galbraith Lake, Snowden Mountain, Sukakpak Mountain, Nugget Creek, Poss Mountain, and Galena Mountain ACEC. o Remove proposed special management actions and replace with one requirement to coordinate and consult with ADF&G. o Provide additional supporting information consistent with BLM ACEC Manual direction on how these ACECs meet ACEC designation criteria. o Resolve inconsistencies in final document. o If BLM considers moving forward with ACECs other than for those areas identified by ADF&G as warranting additional management attention, the ACECs must be appropriately justified and sized as follows: -Appropriate discrete sizing of ACECs to protect the relevant and important values identified for the designation, determined in cooperation with ADF&G. -Include a thorough analysis of the use and associated issues and concerns for any limitations proposed on BLM lands through the planning process (e.g., limits on OHV use). -Provide a timeframe in the proposed final RMP/DEIS for completion of additional work for subsequent planning or inventory activities needed to support proposed limitations (e.g., travel management planning). -Consult and coordinate with ADF&G on management actions to manage ACECs for fisheries and wildlife values consistent with the MMOU between BLM and ADF&G. -Review complete RMP for consistency prior to release of the proposed final RMP/EIS. * Discussion: We are supportive of the following existing ACECs and recommend the same special management action for each of them (identified below in subsection B to coordinate and consult with ADF&G)-West Fork Atigun, Toolik Lake, Galbraith Lake, Snowden Mountain, Sukakpak Mountain, Nugget Creek, Poss Mountain, and Galena Mountain. We believe that these ACECs, as they exist now under Alternative A, are appropriately sized and located, and if consultation with ADF&G occurs when proposed projects in the area are under consideration, the important habitat can be adequately protected with appropriate mitigation measures determined on a case by case basis. It is important to consider all BLM lands and resources, including designation and management of ACECs, in the context of BLM's multiple use directive. FLPMA Section 103(c) defines multiple use as including "a combination of diverse resource uses that takes into account the long-term needs of future generations for renewable and non-renewable resources." While FLPMA Section 102(11) also identifies the potential need for ACECs, millions of acres of federal public land within and adjacent to the planning are already designated CSUs; therefore, in Alaska, it	The BLM appropriately evaluated a reasonable range of alternatives, which were developed considering multiple versions and sizes of the ACECs nominated for designation, including consideration of the available supporting information and providing rational for any nominated ACECs not included in at least one alternative considered in the Draft RMP/EIS, consistent with BLM Manual 1613. See the final ACEC Report on the Application of Relevance and Importance Criteria for greater detail on individual ACECs (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf). Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. The special management proposed for ACECs is tailored with the purpose of maintaining or enhancing the ACEC's relevant R&I values.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Magee	Susan	State Of Alaska	None	165	41	Areas of Critical Environmental Concern	211.0100.00	Fisheries ACECs We recognize the importance of clean water both as habitat for fishery resources, which serve an essential role in meeting the subsistence needs of area residents, as well as a source for community drinking water. However, based on the information presented, we do not believe the ACECs proposed for fisheries values in the draft CYRMP/EIS meet all the necessary criteria for designation. When appropriate, fisheries ACECs should be applied only to those areas necessary to protect the fisheries resource and reasoning should be provided if a single ACEC is covering portions of different watersheds. BLM regulations and policy require an ACEC to meet specific criteria to be designated. Fish resources are abundant across Alaska; therefore, the presence of fish alone is not enough to qualify an area for an ACEC designation. The resource must also meet the "importance criterion" (43 CFR 1610.7-2(a)(2)). Importance. The above-described value, resource, system, process, or hazard shall have substantial significance and values. This generally requires qualities of more than local significance [emphasis added] and special worth, consequence, meaning, distinctiveness, or cause for concern… While we agree that fisheries are an extremely important resource, the generalized resource concerns identified for many of the proposed fisheries ACECs do not indicate they are more than locally significant. The justification provided for the proposed ACECs with Fish/Riparian values relies on the logic that because riparian resources only constitute 3% of the BLM managed lands in the planning area, this makes them rare at a regional scale and as such, meets the ACEC importance criterion. This logic is flawed because these same fishery values are found throughout the State of Alaska, as well as on adjacent federal, State, and private lands within the planning area. Fishery related ACECs should only be proposed when they have substantial significance and values when compared to typical conditions (water quality, fisheries, productivity, escapement, etc.). Information needed to make that determination include escapement data for relevant fish species as well as comparisons with fisheries in other river systems regarding species composition/diversity or escapement. Such a comparison is crucial in justifying the fisheries resource as unique, important, and/or more then locally significant. We also disagree with the rationale provided that deems Fish/Riparian values important because riparian resources perform a disproportionate number of biological and physical functions. Using this logic provides for virtually any riparian resource meeting the importance criteria, which defeats the logic of the areas being unique and places the logic in conflict with the intent of the BLM regulations. Overall, little information is provided to support the importance of the proposed fishery ACECs. Most of them use the same rationale to support their inclusion, often also noting that while values would be considered unique on a national scale, it is not unique in the planning area or region. This statement emphasizes yet again that the proposed ACECs do not merit designation. For example, the Hogatza River ACEC under Alternative A covers 5,000 acres to protect chum salmon spawning habitat in Clear and Caribou Creeks. Clear Creek chum salmon spawning habitat is on BLM's special status species watch list. During the 1986 CYRMP planning process, we were supportive of the ACEC and as a signatory agency, involved in the preparation of a Habitat Management Plan (HMP) for the ACEC in 1994. However, the bulk of the Hogatza River ACEC lands are no longer under BLM management and the HAP was never implemented. No discussion was included in the RMP of the relevance and importance of the remaining 5,000 acres as spawning habitat. Management intent in the HAP was to obtain large scale aerial photography of the streams within the ACEC, collect channel geometry from representative reaches of Clear, Caribou, Bear and Aloha Creeks, and conduct annual compliance inspections of surface disturbing land-use activities occurring with the ACEC to ensure protection of the aquatic resources, to document the quantity and quality of existing habitat, and provide a basis for instream flow evaluations. Despite the intent of the HMP to	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. This includes designating ACECs with fishery related R&I values to provide protection where it is most needed. For more detail on individual ACECs, see **Appendix T** of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Magee	Susan	State Of Alaska	None	165	42	Areas of Critical Environmental Concern	211.0100.00	Wildlife ACECs As stated in our previous cooperator review comments on the Central Yukon Preliminary Alternative Concepts, we recommend BLM maintain the existing Galena Mountain ACEC (Alternative A). The Galena Mountain ACEC is already appropriately sized covering 19,000 acres that correctly prioritizes the calving grounds of the Galena Mountain Caribou Herd. Upon review of the draft RMP/EIS, we also support maintaining the following existing ACECs under Alternative A for the protection of Dall sheep, mineral licks, and caribou calving/migration areas: Galbraith Lake, Poss Mountain, Nugget Creek, Snowden Mountain, Sukapak Mountain, Toolik Lake, and the West Fork Atigun. We do not support the designation of the expanded Tozitna ACEC or the Tozitna (north/south) ACEC for caribou calving at this time and request BLM instead work with ADF&G to collect data defining calving grounds to determine if an ACEC is needed in this area for caribou. In addition, we do not support the expansion of the aforementioned ACECs, as proposed under Alternatives B and C1, as that action could dilute BLM's ability to prioritize protections for the most important habitat.	The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. This includes designating ACECs with wildlife related R&I values to provide protection where it is most needed. Galena Mountain and Sukakpak Mountain ACECs would not be designated under Alternative E. The other specific ACECs the comment is concerned with would be designated under Alternative E, with some of the existing ACECs increasing in size under Alternative E. For more detail on individual ACECs, see **Appendix T** of this RMP/EIS and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Magee	Susan	State Of Alaska	None	165	43	Areas of Critical Environmental Concern	211.0100.00	ACEC Size We also have concerns with the overall size of many of the ACECs carried forward in the draft RMP/EIS, some of which encompass hundreds of thousands of acres. ACEC size should relate directly to the protections needed for the designated values. BLM Manual 1613.22B2 specifies that "The size of a proposed ACEC shall be as necessary to protect life and safety or the also important and relevant values within the context of the set of management prescriptions for the public lands." For example, ACECs designated for fisheries values should be narrow and follow river corridors, allowing BLM to focus protections on the most important habitat areas. ACECs designated for wildlife should prioritize calving grounds and migration areas. Any ACECs carried forward to the final RMP must be appropriately sized in accordance with direction in BLM Manual 1613.22B2.	To be eligible for consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see **Appendix T** of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Magee	Susan	State Of Alaska	None	165	44	Areas of Critical Environmental Concern	211.0100.00	Inconsistent Information Reviewing the ACEC portion of the draft RMP/EIS is complicated by the inconsistencies presented between the discussions in Chapter 2, Chapter 3, Appendix J and Appendix T. These inconsistencies range between differing acreage for the same alternatives (e.g., Galbraith Lake identifies the acreage as 52,000 acres in Appendix T, but 53,000 acres in Chapter 2, Table 2-1), different values identified for the same ACEC (e.g., the Sukakpak/Snowden Mountain ACEC is designated for Dall sheep habitat under Alternative B and for Scenic and Geologic Values in Alternative C1), and different special management actions for the same alternative (e.g., Galena Mountain is identified as a ROW exclusion area in Chapter 2 but a ROW Avoidance area in Appendix J.) The pervasive inconsistencies are found throughout the document and are too numerous to list in their entirety. They should be evaluated and reconciled before issuing the proposed final RMP.	The RMP/EIS acreages were reviewed and revised for consistency throughout the document.

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Magee	Susan	State Of Alaska	None	165	45	Areas of Critical Environmental Concern	211.0100.00	ACEC-Specific Management Actions – Issues. o ACEC effects analysis does not take into consideration existing federal and state laws and regulatory authorities that protect fish and wildlife habitat, thereby rendering the analyses meaningless. o Draft RMP/EIS fails to outline how special management is unique to each ACEC and only able to be prescribed through ACEC designation. o Draft RMP/EIS does not include data to support need for unique special management actions for individual ACECs. o Special management for fish and wildlife habitat was not determined in cooperation with ADF&G biologists. o Special management via blanket limitations is inappropriate. o Proposed OHV restrictions within the Dalton Highway Corridor are redundant with existing State statutes and regulations. o Proposed general OHV restrictions in remote areas are unnecessary for resource protections as the areas are so remote they are self-limiting. o Proposed OHV restrictions in remote areas primarily affect subsistence users and conflict with ANILCA Section 811(a) and (b), which requires BLM to provide reasonable access to subsistence resources and allow methods of access traditionally employed. o ACEC special management actions can lead to situations where development is displaced to adjacent State or private lands of higher habitat value. o Inconsistencies exist regarding special management between Chapters 2 and 3, and Appendices J and T, as well as between information found in Alternative A and the original RMPs. * Resolution: o Eliminate proposed special management actions and replace with one special management action for the wildlife ACECs identified above that requires consultation and cooperation with ADF&G. o Verify that special management in Alternative A matches what is in the current RMPs. o Fix inconsistencies found in draft RMP/EIS in the final RMP/EIS. * Discussion Perhaps the most important aspect of the ACECs is the requirement that they must need special management to protect and prevent irreparable damage to the important values or resources that have met the relevance and importance criteria. For many of the ACECs proposed in the draft CYRMP/EIS we question the need for special management, even if the relevant and important criteria is met, when existing federal and state laws and regulatory authorities are in place to protect fish and wildlife habitat. Additionally, as we stated in previous cooperator review comments, many of the proposed ACECs are in areas so remote, the area itself is self-regulating and would not need nor benefit from special management. The remote and rugged nature of the planning area precludes both recreational and commercial activities from occurring without substantial planning and forethought. This is evidenced by the low number of BLM-permitted activities that exist over much of the planning area under current management. For example, the Spooky Valley RNA is designated to protect, depending on Alternative, geological, physiographic, vegetation, scenic values, and/or caribou habitat, yet the patterns of public use in the area are very low. Hunters may be the only users in the area and their use and harvest is self-limited due to the limited aircraft landing sites. There is no data provided to indicate the use of the area by the four small non-migratory caribou herds is significant enough to warrant access restrictions based on wildlife resource use or potential habitat damage concerns. The effects analysis in Appendix T for Alternative C1 affirms this: "Currently, there are no threats to the R&I values" (page T-39). It is unclear to the reader how some individual ACEC alternatives can require special management to protect and prevent irreparable damage in an ACEC, when other alternatives for the same ACEC state "there are no threats." Other proposed ACECs where the draft RMP/EIS indicates no threats to relevant and important (R&I) values have been identified include: Huslia River Tributaries, Indian River, Klikhtentotzna Creek, McQuesten Creek RNA, Mentanontli River/Lake Todatonten, South Todatonten, Spooky Valley RNA, Upper Teedriinjik (Chandalar) River, and Wheeler Creek, as noted in Appendix T. In general, because of the suite of existing federal and state laws and regulatory authorities, as well as the remote locations of many of proposed ACEC areas,	To be eligible for consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. This includes designating ACECs to provide appropriate protection to the relevant R&I values. For more detail on individual ACECs, see **Appendix T** of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Magee	Susan	State Of Alaska	None	165	46	Areas of Critical Environmental Concern	211.0100.00	Special Management via Blanket Limitations Special management proposed for ACECs in Appendix J, under Alternatives A, B, and C1 (particularly Alternative B), employs excessive blanket limitations on surface-disturbing activities applied across vast areas (e.g., ROW exclusion and avoidance areas). For example, in the Hogatza River ACEC, proposed special management under Alternative B includes the following banket restrictions; FLPMA withdrawals, closing the entire ACEC to mineral materials disposal, mineral leasing and development; mineral extraction or collection (i.e., casual use and prospecting); prohibiting commercial timber development; and designating the entire area ROW Avoidance. While beneficial to fish habitat in discrete areas, the restrictions are unnecessary across 221,000 acres. These waterways also have sufficient protections under the Clean Water Act and State Statutes "AS 16.05.871 the "Anadromous Fish Act" and AS 16.05.874 the "Fishway Act." The plan does not contain data and only provides generalized rationale with no detail to support the proposed special management action, (e.g., The management prescriptions identified in Chapter 2 would help protect R&I values within this designated ACEC and reduce threats to R&I values (T.7 Alatna River, Alt. B and C1, page T-8), nor does BLM identify how these special management actions will directly serve to provide protection for targeted resource(s).	To be eligible for consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. This includes designating ACECs to provide appropriate protection to R&I values. For more detail on individual ACECs, see **Appendix T** of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Schutt	Aaron	Doyon Limited	None	173	8	Areas of Critical Environmental Concern	211.0100.00	Determinations that lands nominated for designation as ACECs meet the ACEC designation criteria must be based upon current and sound science and subjected to scrutiny through public review and comment and consultation with ANCs and Tribes. BLM should disclose all of the evidence and factors that it reviewed and considered in proposing to designate of an area as an ACEC so that the public can fully and meaningfully review and evaluate the designation. The same is true regarding BLM's determination that special management attention-and the particular special management measures proposed-are necessary to protect and prevent irreparable damage to the relevant and important values, resources, systems, or processes. Without a clear understanding of all of the evidence and factors considered, the public cannot evaluate whether the area that BLM has proposed to designate as an ACEC is appropriate, or whether the BLM has either excluded lands appropriately included or-particularly in the case of Alternative B here-included lands that do not meet the ACEC criteria and should be excluded.	The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. This includes designating ACECs to provide appropriate protection to R&I values. For greater detail on the information used in decisions regarding individual ACECs, see **Appendix T** of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Schutt	Aaron	Doyon Limited	None	173	9	Areas of Critical Environmental Concern	211.0100.00	Similarly, the public cannot evaluate whether there is truly any threat of irreparable damage to the identified values, resources, systems, or processes. Nor can the public determine whether the proposed special management measures are necessary to protect those values, resources, systems, or processes and prevent such irreparable damage. In proposing any designation of ACECs and their management, BLM must clearly identify the threats of irreparable damage that it asserts are sufficient to warrant ACEC designation, including the source of the threat, the likelihood of irreparable damage from that source, and other relevant factors, as well as the evidence underlying that analysis. The Draft RMP's discussion of the ACEC proposals under certain of the action alternatives, and particularly Alternative B, fall short in this regard.	The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives based on that analysis and would designate 21 ACECs covering 3,611,000 acres. This includes designating ACECs to provide appropriate protection to R&I values. For more detail on individual ACECs, see **Appendix T** of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Schutt	Aaron	Doyon Limited	None	173	10	Areas of Critical Environmental Concern	211.0100.00	As examples, under Alternative B, each of the ACECs proposed for designation-including the Indian River, Wheeler Creek, Hogatza River Tributaries, and Klikhtentotzna Creek ACECs (shown on attached Figure 1)-would be closed to fluid mineral leasing as a special management measure. Draft RMP, pp. J-3 - J-32. To properly support such a proposal, BLM must explain, at a minimum: the current and reasonably foreseeable mining activity on the proposed ACEC lands; the past, present, and reasonably foreseeable future impacts associated with that activity; how that activity-at current and reasonably foreseeable levels-poses a threat of irreparable damage to the relevant and important resources, values, etc.; and, if indeed it does pose such a threat, why normal management is not sufficient to prevent such irreparable damage and withdrawal from mineral exploration and development is necessary as a special management measure.	The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives based on that analysis and would designate 21 ACECs covering 3,611,000 acres. The Indian River, Wheeler Creek, Hogatza River Tributaries, and Klikhtentotzna Creek ACECs are all designated under Alternative E, though none would have closures to fluid mineral leasing applied to protect R&I values. For more detail on individual ACECs, see **Appendix T** of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Schutt	Aaron	Doyon Limited	None	173	11	Areas of Critical Environmental Concern	211.0100.00	A quick review of Map N-3 in Appendix N shows very low oil potential for most of the proposed ACECs, including the four ACECs identified above. Draft RMP, p. N-7). Yet, most of the analysis for these proposed ACECs focuses on the determination that leaving the ACECs open to fluid mineral leasing, exploration, and development would result in greater impacts than if the ACECs are closed to fluid mineral leasing. Given that the Reasonable Foreseeable Development Scenario indicates "very low" oil potential for each of these ACECs, there is no basis to support a determination that mineral development would be the primary source of impacts on R& I values in these areas and that the areas therefore need to be withdrawn from fluid mineral leasing to protect and prevent irreparable damage to those values.	The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives based on that analysis and would designate 21 ACECs covering 3,611,000 acres. The Indian River, Wheeler Creek, Hogatza River Tributaries, and Klikhtentotzna Creek ACECs are all designated under Alternative E, though none would have blanket closures to fluid mineral leasing applied to protect R&I values. For more detail on individual ACECs, see **Appendix T** of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).

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Schutt	Aaron	Doyon Limited	None	173	12	Areas of Critical Environmental Concern	211.0100.00	The Draft RMP also proposes that most of the ACECs and RNAs that would be designated under Alternatives B, C1, and C2 would be managed as ROW exclusion or avoidance areas as a special management measure. Draft RMP, pp. J-3 - J-32. As with the withdrawal from fluid mineral leasing, however, the Draft RMP does not show how the location of ROWs-at current and reasonably foreseeable levels-poses any threat of irreparable damage to the R&I values of these areas. It also fails to explain how, if indeed ROW location does pose such a threat, why normal management is not sufficient to prevent such irreparable damage and designation and ROW exclusion or avoidance is necessary as a special management measure.	Impacts analysis throughout the RMP/EIS addresses the potential for a variety of impacts under a range of ROW-related management actions to an appropriate degree, including surface disturbing activities. For example, for discussion on water and aquatic resources related to potential R&I values regarding impacts related to a range of ROW-related actions see Sections 3.2.3, 3.2.5, and 3.2.6 of the Proposed RMP/Final EIS (Water Resources, Wetland Resources, and Fish and Aquatic Species).
Schutt	Aaron	Doyon Limited	None	173	13	Areas of Critical Environmental Concern	211.0100.00	Throughout Appendix T, BLM simply states for the various ACECs that overlap or that would be managed as ROW exclusion or avoidance areas that the ROW restrictions protect R&I values by eliminating surface disturbance. See, e.g., Draft RMP, p. T-12. Little analysis is provided, however, to substantiate the determinations that preventing disturbance for ROWs is needed to and actually would protect R&I values. Documentation of the analyses of the ACECs generally includes no discussion of the actual threat(s) to the various R&I values or how the proposed special management measures in Appendix J are necessary to protect those values against any such threats.	Impacts analysis throughout the RMP/EIS addresses the potential for a variety of impacts under a range of ROW-related management actions to an appropriate degree, including surface disturbing activities. For example, for discussion on water and aquatic resources related to potential R&I values regarding impacts related to a range of ROW-related actions see Sections 3.2.3, 3.2.5, and 3.2.6 of the Proposed RMP/Final EIS (Water Resources, Wetland Resources, and Fish and Aquatic Species).
Schutt	Aaron	Doyon Limited	None	173	14	Areas of Critical Environmental Concern	211.0100.00	In addition, the Draft RMP fails to provide justification for why the measures identified in Appendix J, Table J.2, are properly "special management measures" and support designation and management of the identified areas as ACECs. As stated in BLM's ACEC Manual, reasons for deciding not to provide special management attention may include, "Special management attention is not required to protect the potential ACEC because standard or routine management prescriptions are sufficient to protect the resource or value from risks or threats of damage/degradation." BLM Manual 1613.33E. In most cases, there appears to be nothing "special" or "unique" about the management measures proposed in Appendix J, Table J.2, for these areas; many of the measures could be considered standard or routine, and also are proposed as part of the management of other lands in the Planning Area. And, nearly all ACECs proposed under certain action alternatives for fish include habitats that already are listed in the State of Alaska's Anadromous Waters Catalog ("AWC") such that each already receives statutory habitat protections under AS 16.05.871, the Anadromous Fish Act.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. The range of alternatives were developed considering multiple versions and sizes of the ACECs nominated for designation, including consideration of the available supporting information, and providing rational for any nominated ACECs not included in at least one alternative considered in the Draft RMP/EIS, consistent with BLM Manual 1613. See **Appendix T** of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria for greater detail on individual ACECs (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Schutt	Aaron	Doyon Limited	None	173	16	Areas of Critical Environmental Concern	211.0100.00	For example, under Alternative B, BLM proposes to expand the Indian River ACEC and designate and manage the area within the ACEC as a ROW exclusion area. Draft RMP, Maps 2.19 and 2.36. As shown in the attached Figure 1, this designation would effectively surround Doyon-selected lands with a designated ACEC and ROW exclusion area, isolating these lands from access. The Draft RMP, however, does not identify or address this effect, either in the context of its discussion of the continued designation of the Indian River ACEC under Alternative A or the proposed expansion of the ACEC under Alternative B. Draft RMP, p. T-16. It also fails to evaluate these potential effects in the analysis of the proposed ROW exclusion area. Draft RMP, pp. 3-132 - 3-133. This failure to identify, consider, and disclose the potential effects of the Indian River ACEC on adjoining landowners is a critical flaw in the evaluation of these proposals.	This important topic is discussed in the Proposed RMP/Final EIS in Section 2.1, Management Common to All Alternatives and again in Chapter 3 under Lands and Realty (Section 3.3.2). Unless specific lands are designated as right-of-way (ROW) exclusion areas, areas of critical environmental concern (ACEC) designations would not prevent or preclude authorized access to adjacent lands not managed by BLM. Additionally, ACEC designations would not prevent any ROWs guaranteed under section 1323(b) of the ANILCA. ROW avoidance areas are areas that would be available for authorized activities that may entail special stipulations or consideration of other site-specific alternatives to protect identified R&I values for the subject ACEC(s) involved. The BLM would work with any project proponent to design a project plan in ROW avoidance areas that meets the proponent's needs and protects R&I ACEC values.
Schutt	Aaron	Doyon Limited	None	173	19	Areas of Critical Environmental Concern	211.0100.00	In addition to not designating ACECs that would effectively surround or restrict access to Doyon-owned lands, the final RMP should not designate any ACECs that would occupy lands selected by Doyon under ANCSA. The proposed Sulukna River ACEC, for example, encompasses several parcels of Doyon-selected lands. As shown on the attached Figure 3, portions of these selected lands are projected as likely to be conveyed to Doyon in the future. The Draft RMP, however, never mentions this, and the evaluation of the ACEC contemplates inclusion of these selected, and likely to be conveyed, lands. Draft RMP, pp. T42 - T-44. Such ACECs would not meet the regulatory criteria for designation of ACECs. Areas under consideration for designation of an ACEC that contain substantial areas of land that are in the process of conveyance or are high-priority Doyon or State-selected lands are unlikely to be retained in federal land status and therefore are inappropriate for designation as ACECs.	State of Alaska and Alaska Native Corporation land selections cannot be revoked through an RMP effort. Exactly when these lands will be conveyed is outside the scope of this RMP effort, however the appropriate management of these lands until such time is important to meeting the stated purpose and need (see the Proposed RMP/Final EIS Section 1.2, Purpose and Need for the Resource Management Plan).
Schutt	Aaron	Doyon Limited	None	173	20	Areas of Critical Environmental Concern	211.0100.00	To the extent that there are sensitive and important habitats that qualify for ACEC designation, inclusion of entire drainages is unlikely to be needed to provide necessary protection for those habitats. As one example, when originally established, the Hogatza River ACEC encompassed 5,200 acres of land and was restricted to areas of documented high-use salmon spawning habitat, predominantly for chum salmon. The ACEC was multiple separate areas of important spawning habitat. The expansion proposed under Alternative B would expand the ACEC to include several tributaries of the Hogatza River and considerable additional acreage around the middle Hogatza River drainage encompassing the original ACEC, for a total of 221,000 acres. Draft RMP, p. 2-8. Most of the ACEC expansion surrounding the mainstem Hogatza River does not include any documented salmon spawning habitat and seems unlikely to meet the criteria for designation as an ACEC because it is primarily a migratory corridor.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources.
Schutt	Aaron	Doyon Limited	None	173	21	Areas of Critical Environmental Concern	211.0100.00	Doyon's comments about adaptive management presented in our discussion of ROW exclusion and avoidance areas are equally applicable to ACECs. Any decision to designate ACECs as part of this planning process, with restrictive management measures, will lock in defined areas and prohibit or limit certain uses for potentially more than 30 years. Particularly in light of BLM's stated goals for adaptive management, normal permitting processes provide a much more flexible structure for the agency over the long term to understand and consider relevant and changing conditions, facilitating informed decisionmaking. Following normal permitting processes, rather than unnecessarily confining the agency's discretion, would provide BLM with the means to adapt to changes in conditions and trends and to sustain healthy, productive lands.	To be considered for designation as an ACEC, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated reasonable range of alternatives, which were developed considering the ACECs nominated for designation, including both internal and external nominations. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Schutt	Aaron	Doyon Limited	None	173	22	Areas of Critical Environmental Concern	211.0100.00	Any ACEC designation or expansion should be directed and tailored to address some real need for protection of or prevention of actual or reasonably foreseeable irreparable damage to an important and relevant resource. There must be a reasoned determination that special management attention-as defined in relevant authorities and guidance-is required, and that special management attention should be directed at the cause(s) identified as threatening the values, resources, systems, or processes and responsible for the irreparable damage that must be prevented. As our comments indicate, there is nothing "special" or "unique" about the measures proposed by BLM as part of the ACEC proposals under certain of the action alternatives, and particularly Alternative B. Rather, the measures are standard or routine and, therefore, special management attention is not required to protect the potential ACECs because the standard or routine management prescriptions are sufficient to protect the R&I values from risks or threats of damage or degradation. BLM's decisions must be grounded in scientific evidence and reflect a rational connection between this evidence and the decisions ultimately made.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Schutt	Aaron	Doyon Limited	None	173	31	Areas of Critical Environmental Concern	211.0100.00	Under certain action alternatives, BLM likewise proposes to designate ROW exclusion and avoidance areas adjoining Doyon lands in the southern portion of the Planning Area. In this area, Doyon is particularly concerned about proposed ROW exclusion and avoidance areas that would encompass the proposed Sulukna River ACEC (see attached Figure 3). These proposed ROW designations overlap Doyon-selected lands that adjoin Doyon-interim conveyed/patented lands, including parcels that are projected to be conveyed to Doyon in the future (see attached Figure 3). As with the previous examples, the Draft RMP does not address the potential effects on adjoining landowners (Doyon specifically) of designating these BLM lands as ROW exclusion or avoidance areas, Draft RMP, pp. 3-132, 3-133, and ignores the potential for conveyance of selected lands, which would remove those lands from BLM management for ROW exclusion and avoidance. Figure 4, attached, shows the distribution of Native selected lands within the Planning Area and their overlap with potentially designated ACECs that would be designated ROW exclusion or avoidance areas.	This important topic is discussed in the Proposed RMP/Final EIS in Section 2.1, Management Common to All Alternatives and again in Chapter 3 under Lands and Realty (Section 3.3.2). ACEC designations would not prevent any ROWs guaranteed under section 1323(b) of the ANILCA. ROW avoidance areas within ACECs are areas that would be available for authorized activities that may entail special stipulations or consideration of other site-specific alternatives to protect identified R&I values for the subject ACEC(s) involved. The BLM would work with any project proponent to design a project plan in ROW avoidance areas that meets the proponent's needs and protects R&I ACEC values. State of Alaska and Alaska Native Corporation land selections cannot be revoked through an RMP effort. Exactly when these lands will be conveyed is outside the scope of this RMP effort, however the appropriate management of these lands until such time is important to meeting the stated purpose and need (see the Proposed RMP/Final EIS Section 1.2, Purpose and Need for the Resource Management Plan).
Schutt	Aaron	Doyon Limited	None	173	38	Areas of Critical Environmental Concern	211.0100.00	under Alternative B, BLM proposes to expand the Indian River ACEC and designate lands within the ACEC as a ROW exclusion area. Draft RMP, Maps 2.19 and 2.36. As shown in the attached Figure 1, this designation would effectively surround Doyon selected lands with a ROW exclusion area, isolating those lands from access. The Draft RMP's analysis of designation and expansion and management of the Indian River ACEC, see, e.g., Draft RMP, p. T-16, and the proposed ROW exclusion area, Draft RMP, pp. 3-132, 3-133, fails to address such impacts	The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres including the Indian River ACEC. For more detail, see **Appendix T** of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Arno	Rod	The Alaska Outdoor Council (AOC)	None	186	1	Areas of Critical Environmental Concern	211.0100.00	BLM's Preferred Alternative C2 - supports minimal additions to Areas of Critical Environmental Concern (ACEC). BLM has yet to show AOC where the State of Alaska has failed to "protect and prevent irreparable damage" to fish or wildlife or their habitats on BLM lands that would warrant the creations of an ACEC in Alaska.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see **Appendix T** of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Lavin	Pat	Defenders Of Wildlife	None	193	14	Areas of Critical Environmental Concern	211.0100.00	Considerable discussion throughout the DEIS points out that ACECs and RNAs would provide improved fish and wildlife habitat protection throughout the planning area. BLM's own evaluation document found that numerous existing and proposed ACECs and RNAs meet the criteria for these designations.27 Yet BLM proposes exactly zero ACECs and one RNA. BLM should explicitly address how removing virtually all of these designated areas from the landscape, regardless of size, type, location, and existing or projected function, will better achieve its management goals and responsibilities overall. Based on the foregoing, its evisceration of ACECs and RNAs seems arbitrary and capricious. 27 BLM, Areas of Critical Environmental Concern; Report on the Application of the Relevance and Importance Criteria (November 2015).	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the R&I values where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. For more detail, see **Appendix T** of this RMP/EIS (ACECs) and the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
West	Jeri	Alyeska Pipeline Service Company	None	196	40	Areas of Critical Environmental Concern	211.0100.00	Areas of Critical Environmental Concern, Appendix T Please consider the following comments on the proposed ACEC addition boundaries: * West Fork Atigun, Alternative B: The easterly boundary should end at left bank of main Atigun River at the confluence and not extend into the river to avoid conflicting with TAPS maintenance work, which occasionally extends into the main river floodplain. * Snowden/Sukapak, Alternatives B and Cl: The westerly boundary should be set back from highway about 500' in order to avoid conflicting with TAPS operations and maintenance activities (Pipeline MP 200, Highway MP 212). * Jim River, Alternatives B and C 1 : The boundaries should exclude a 1000-foot-wide corridor along the highway and pipeline in order to avoid conflicting with pipeline operation and maintenance activities.	Existing ACECs were reconsidered in light of new data. Any identified changes are described in the ACEC report, available on the plan website. New ACECs were also nominated based on available data and are described in the same report. As ACECs are a land use plan decision, boundaries cannot be adjusted without a land use plan amendment.
Brown	Loretta	SalmonState	None	198	7	Areas of Critical Environmental Concern	211.0100.00	SalmonState is particularly troubled by the rejection of Tribally nominated ACECs, and BLM's statement that the lack of inclusion of Tribal input and designation, "will be seen by some as a rejection of local concerns about protection of important subsistence species and habitat, as well as a failure to be responsive to local values and knowledge." Therefore, we request that BLM designate Tribes' ACEC nominations that the agency improperly excluded from the Draft RMP and that the BLM involve Tribes in the development of the final RMP and in the decision-making processes and must do so in a way that respects Tribal sovereignty and self-determination.	To be considered for designation as an ACEC, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which were developed considering the ACECs nominated for designation, including both internal and external nominations. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Brown	Loretta	SalmonState	None	198	8	Areas of Critical Environmental Concern	211.0100.00	BLM further failed to fully assess the 46 ACECs, nominated by Tribes and the public, and we request the agency do so now. At the conclusion of such assessment, the BLM should adopt all of the 31 ACECs nominated by Tribes that met the criteria for relevance and importance, as outlined under Alternative B in the Draft EIS.32 Additionally, all other nominations for ACECs that were not considered by BLM in the Draft RMP should be revisited and thoroughly considered for inclusion, as well as allow for additional or corrected information for those nominated ACECs dismissed. SalmonState is particularly concerned about the nominations that identify key high value habitat for Chinook, whitefish, cisco and sheefish that were not adopted.33 Adoption and incorporation of all of the nominated ACECs is important for maintaining sufficient access to subsistence resources such as customary and traditional fishing and hunting areas, and protection of fish and wildlife, and habitat for sustaining those resources. Additionally, BLM should designate ACECs in those areas open to locatable mineral entry to protect important fish and wildlife and habitat from impacts of mining.32 Draft RMP and DEIS at 3-158 33 ACEC report at 4	To be considered for designation as an ACEC, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the resources where ACECs would not be designated.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Brown	Loretta	SalmonState	None	198	11	Areas of Critical Environmental Concern	211.0100.00	In the RMP planning process the BLM must consider the designation and protection of Areas of Environmental Concern ("ACECs") where "special management attention is required... to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources." BLM also has the option to designate Backcountry Conservation Areas to "protect, conserve, restore, and enhance larger areas of generally intact and undeveloped BLM managed lands that contain functional, unfragmented habitats and migration/movement corridors for recreationally-important fish and/or wildlife species," as well as the designation of lands as Research Natural Areas for scientific research regarding geology, botany, climate change, paleontology, archaeology, biology, and anthropology. The BLM failed to meet these requirements and options by selecting Alternative C2 as its preferred and dismissing those designations and nominations for ACECs, BCAs, and RNAs, and removal of the 18 ACECs and 6 RNAs previously designated.	The BLM appropriately evaluated reasonable range of alternatives, which were developed considering the ACECs nominated for designation, including both internal and external nominations. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	9	Areas of Critical Environmental Concern	211.0100.00	TCC Tribes nominated several ACECs, including Bishop Creek and other traditional hunting and fishing areas important to Louden Tribal Council (Galena), an expanded Jim River ACEC (Allakaket), and Koyukuk River Tributaries and Yukon River Watersheds (Koyukuk). Each of these ACECs represent important habitats and harvest areas with cultural significance to tribes. The expanded Jim River ACEC appears in Alternative B, but BLM determined that the others were not eligible.12 As Susie Sam testified during the Feb. 3, 2021 hearing, Louden's nominations were mainly watersheds that served as cultural mainstays for tribal members' subsistence lifeway. The nominations were based on the tribal members' unique expertise in the form of traditional and indigenous knowledge and for the purpose of continuing to support the wild food economies that the communities rely on for sustenance. 12 Bureau of Land Management, Central Yukon Resource Management Plan Areas of Critical Environmental Concern Report on the Application of the Relevance and Importance Criteria, 45, 62, 74, 93, 96, 98 (2015) (ACEC Report) To be considered as a potential ACEC and analyzed in an RMP alternative, an area must meet at least one "relevance" criteria and one "importance" criteria (43 C.F.R. § 1610.7-2). The relevance criteria is met if the area has "a significant historic, cultural, or scenic value," (43 C.F.R. § 1610.7-2) including "religious or cultural resources important to Native Americans"13 and subsistence practices in customary and traditional use areas. 14 In evaluating whether Tribes' nominations met the "importance" criteria for cultural resources, BLM focused on known sites and did not adequately consider intangible cultural resources or undocumented cultural resources that are significant to Tribes. BLM incorrectly concluded that "cultural significance should not be confused with subsistence importance; subsistence use is accounted for under a unique set of laws and regulations,"15 ignoring that subsistence practices have an essential role in Native American culture with deep spiritual connections, and how the wild food economies contribute to the health and well-being of rural Alaskan Native communities. This statement also contradicts statements elsewhere recognizing the importance of subsistence in supporting cultural systems and the sustainability of rural Alaska Native communities.16 13 Bureau of Land Management, Manual 1613: Areas of Critical Environmental Concern (1988). 14 ACEC Report at 62, 74, 93-94, 96, 98. 15 ACEC Report at 64, 95, 97, 99. 16 DEIS 3-95, 3-196, 3-200, 3-204	To be considered for designation as an ACEC, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which were developed considering the ACECs nominated for designation, including both internal and external nominations. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	23	Areas of Critical Environmental Concern	211.0100.00	Steve expressed concerns about proposed resource extractive development and the loss of ACEC measures that would otherwise conserve and protect spawning salmon habitat at the South Fork of the Koyukuk River and Henshaw Creek, a significant known spawning and rearing stream. His family depends on the summer spawning season to acquire fish, as do families across the planning area. He shared his concern about the prospect of extractive development in the area contaminating waters and ruining their subsistence way of life: "We depend on this country so much here, that's the only way we've been surviving." In a similar tone, Jessie said, "This [extractive development] will leave us with nothing but the spoils their operations." In similar public testimony, Susie Sam, Tribal Administrator for Louden Tribe stated at the Feb. 3, 2020 meeting that this lifeway is a mainstay for their spiritual values and cultural security. During a March 3, 2021 meeting, Julie Roberts (Tanana Village) raised concerns about the Tozitna River salmon spawning area. The loss of an ACEC in this area would jeopardize this important spawning area. Opening nearly all of the land in the planning area for development would jeopardize this lifeway by inviting extractive development into high value watersheds. These comments provide evidence of the profound importance of subsistence lifeways and the nutritional and cultural dependence on these resources. Federally qualified subsistence users would be negatively impacted by the elimination of conservation measures already adopted in areas designated as ACECs. Cumulative factors of opening traditional hunting areas to the general populations would result in decreased caribou populations, trespassing and related unauthorized surface uses, degradation of high value watersheds, desecration of cultural resources, and encroachment on customary and traditional use areas. Many of these factors would be more appropriately managed by prescribing management tools that reflect the deeper cultural and historical connections to the land, specifically the identification and designation of Traditional Cultural Properties.	To be considered for designation as an ACEC, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which were developed considering the ACECs nominated for designation, including both internal and external nominations. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Georgette	Susan	Selawik National Wildlife Refuge	None	201	2	Areas of Critical Environmental Concern	211.0100.00	The maintenance of water quality and quantity throughout the entire Selawik River watershed is essential for refuge habitat to be productive for fisheries and wildlife populations. We believe that our success in managing productive Selawik Refuge habitats depends upon the BLM providing the utmost consideration of tributary watershed impacts in the RMP. In light of this, we request BLM revisit the recommendation we made during review of the preliminary alternatives in 2017 asking that the southern tributaries of the upper Selawik River on BLM lands be identified as an ACEC. Selawik Refuge is particularly concerned about this portion of the Selawik River watershed because of its potential impact on the critically important sheefish spawning grounds on the Selawik River, the only spawning area for the Selawik sheefish population. Other whitefish species also spawn in the upper Selawik River. These fish populations are critically important subsistence resources, especially given that the Selawik River watershed does not support a salmon run. In addition, these tributaries contribute substantially to the flow of the designated Selawik Wild River, which covers the upper 168 miles of the Selawik River.	This suggested ACEC is not within the planning area for the Central Yukon Resource Management Plan.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	12	Areas of Critical Environmental Concern	211.0100.00	To demonstrate this imbalance, please consider the following table showing the allocation assigned to various intensive development activities in comparison to lands managed as Areas of Environmental Concern (ACECs) as a percentage of the decision area by alternative. We use ACECs as a reference point here since this designation provides a mechanism to safeguard resource values and uses such as wildlife, fisheries, water resources, subsistence, and scenic values. See Attached comment letter for resource use table. The table above clearly demonstrates that the BLM's preferred alternative, C2, fails to meet the agency's multiple-use and sustained yield mandate as required by FLPMA. Alternatives C1 and D are also heavily skewed towards resource development. We feel strongly that Alternatives A and B are the only balanced alternatives in the range. TRCP recommends that the BLM select Alternative B for the proposed alternative in the proposed RMP, with a few key modifications, including the retention of the public land withdrawals discussed below as currently managed in Alternative A.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. Alternative E makes no decision on current PLOs.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	40	Areas of Critical Environmental Concern	211.0100.00	The Federal Land Policy and Management Act (FLPMA) directs the BLM to provide special protection for Areas of Critical Environmental Concern (ACECs) on public lands, and establishes that ACECs should receive priority over other land uses in the agency's inventory, land designation, and planning activities. "The Secretary shall prepare and maintain on a continuing basis an inventory of all public lands and their resource and other values (including, but not limited to, outdoor recreation and scenic values), giving priority to areas of critical environmental concern" (FLPMA, Section 201(a), emphasis added). Contrary to this statutory policy directive, Alternative C2, the agency's preferred alternative, proposes to eliminate all existing ACECs and disregard all but one proposed ACEC, without demonstrating how important resource values such as Dall sheep and caribou habitat will be adequately conserved.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	42	Areas of Critical Environmental Concern	211.0100.00	As noted in our comments on BLM's multiple-use and sustained yield mandate, we find the allocation of ACECs in alternative C2 to be extremely unbalanced and, of the action alternatives (B, C1, C2, D), only Alternative B designates more than 5 percent of the total acreage in the planning area as ACECs, making it the only balanced action alternative. In addition to developing a more balanced range of ACEC allocation, we also request that the final RMP indicate specific acreages recommended for FLPMA withdrawals where necessary to support the objectives of specific ACECs. Finally, we encourage the BLM to reconsider ACEC nominations made during the scoping period, especially those submitted Alaska Native tribes and cooperating agencies.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	64	Areas of Critical Environmental Concern	211.0100.00	As noted in our comments on BLM's multiple-use and sustained yield mandate, we find the allocation of ACECs in alternative C2 to be extremely unbalanced and, of the action alternatives (B, C1, C2, D), only Alternative B designates more than 5 percent of the total acreage in the planning area as ACECs, making it the only balanced action alternative. In addition to developing a more balanced range of ACEC allocation, we also request that the final RMP indicate specific acreages recommended for FLPMA withdrawals where necessary to support the objectives of specific ACECs. Finally, we encourage the BLM to reconsider ACEC nominations made during the scoping period, especially those submitted Alaska Native tribes and cooperating agencies.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
National Wildlife Refuges	Koyukuk	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Northern Unit of Innoko National Wildlife Refuges	205	9	Areas of Critical Environmental Concern	211.0100.00	We strongly recommend amending Alternative B to prevent full revocation of PLOs 5173, 5179, 5180, 5184, and 5186 for the protection of ACECs in the vicinity of Koyukuk, Nowitna, and Innoko NWRs. If ACECs as identified in Alternative B occur on any lands where a withdrawal is revoked and if the State of Alaska, through the Statehood Act, or an ANCSA corporation, through the ANCSA, desires conveyance of the parcels, we recommend lands within ACECs be exempted from the withdrawal or conveyance.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.

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Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	6	Areas of Critical Environmental Concern	211.0100.00	Excluding 30 of the 31 proposed ACECs designations from the Preferred Alternative C2 and D is deficient in respect to conservation of fish, wildlife, and their habitats, and cultural resources in nearly one third of the land in the planning area. The results of regional climate models suggest that Alaska is directly impacted by increasing seasonal temperatures and changes in precipitation patterns (USGCRP 2018). Coupled with the proposed land use change (or "resource development") and resulting loss of natural landscapes in Alternatives C2 and D, these pressures will have significant impacts on biodiversity, local cultural values, traditional hunting areas, and important fish and wildlife habitat. As discussed above, under Alternatives C2 and D all of the acreage would be available for locatable mineral entry, fluid mineral entry, commercial timber development and open to mineral material sales, potentially resulting in downstream degradation of aquatic and terrestrial habitat, contamination of surface water, and disturbance to wildlife on NWRs. Therefore, the Service requests that all designations of ACECs in the RMP be accompanied with a site-specific recommendation for withdrawal from any mineral and fluid entry and location entry in areas with high or medium potential for mineral development.	To be considered for designation as an ACEC, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which were developed considering the ACECs nominated for designation, including both internal and external nominations. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	6	Areas of Critical Environmental Concern	211.0100.00	The Plan acknowledges landscape changes within the Central Yukon planning region are accelerating due to ongoing atmospheric warming with impairment to human health. Yet there are places in the Plan where effects of climate change are incorrectly discussed as if they have not yet come to pass. For example, Page T-2 states, "General warming of the Arctic could result in increased erosion rates and thawing of permafrost, affecting soil, geologic, and vegetation R&I values." Clearly, those physical processes described are already happening and affecting R&I values. We encourage BLM to correct such language to make clear climate change and its effects have been transforming landscapes and will continue to do so at an accelerated rate.	Language has been added to the RPM/EIS clarifying the current and future anticipated impacts of climate change.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	28	Areas of Critical Environmental Concern	211.0100.00	Further, as outlined in the BLM Land Use planning handbook (BLM 2005, Appendix C, page 28), BLM should consider that: subject to existing rights, the BLM is to avoid approval of proposed actions that could degrade the values of potential [emphasis added] special designations. Proposed actions will be reviewed on a case-by-case basis and impacts to an area's values will be assessed. The standard for this review is the protection of the area's resources and values so that the area will not be disqualified from designation. Subject to valid existing rights, proposed actions that cannot meet this standard should be postponed, relocated, mitigated, or denied until the planning for the area is completed." [emphasis added] Considering law, policy, and public and cooperator requests, we urge ACECs be designated and protected as required. Shortcomings of the Draft Plan in Regard to the Protection of ACEC Relevance & Importance Values. Two of the assumptions for analysis presented in Appendix T, p. T-5 are that: Permitted activities are assumed to have mitigations proposed so as not to impair the R&I values for which an ACEC is designated. The exception is locatable minerals; until withdrawn from mineral entry, a mining claim can be filed, and subsequent mining could affect R&I values of the ACEC. [emphasis added] Impacts resulting from locatable minerals would be subject to 43 CFR 3809, intended to (1) prevent unnecessary or undue degradation of the land and reclaimed disturbed areas, and (2) provide for maximum possible coordination with state agencies to avoid duplication and to ensure that operators prevent unnecessary or undue degradation of public lands.With these stated assumptions, BLM acknowledges that mining for locatable minerals may in fact impact R&I values. Despite BLM's acknowledgement that locatable mineral mining may degrade ACEC R&I values, and their statement, BLM recommends opening additional lands to mineral entry under each of the action alternatives.	To be considered for designation as an ACEC, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the resources where ACECs would not be designated.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	31	Areas of Critical Environmental Concern	211.0100.00	In Table 2-1, Alternative B proposes 3,657,000 acres be designated as ACECs for their high aquatic resource value. These acres of aquatic ACEC correspond to acres of high-value watersheds . As shown in Table 3-12, Alternative B (the least development-oriented alternative), approximately 6% (244,000 acres) of high-value watersheds would be protected through mineral withdrawal. Alternative C1 would protect a similar amount and Alternatives C2 and D would not protect any high-value watersheds	The BLM evaluated a reasonable range of alternatives, which were developed considering the ACECs nominated for designation, including both internal and external nominations. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	33	Areas of Critical Environmental Concern	211.0100.00	Impacts as a result of placer mining are well laid out in the BLM Analysis of Management Situation (AMS), Chapter 2 - Area Profile Fish and Aquatic Species, p. 49. To sum up the AMS finding regarding placer mine reclamation success (note this is reclamation following the impact not protection of the R&I values as required for ACEC values) "post reclamation recovery is still in progress and may take decades to re¬establish level 3 function (stream channel stability), let alone the Level 5 function (biologic) needed for protection of ACEC aquatic resource."	The BLM appropriately evaluated a reasonable range of alternatives, which were developed considering the ACECs nominated for designation, including both internal and external nominations. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	36	Areas of Critical Environmental Concern	211.0100.00	We do not see any mechanism that BLM can take that protects R&I values other than mineral withdrawals. We request all 31 existing, expanded and proposed ACECs in Alternative B be designated and request mineral withdrawals be maintained or modified where they overlay the proposed ACECs and appropriate withdrawals pursued, where lacking, that close the areas to mining, to provide the necessary protection to R&I values of all 31 ACECs in regard to mining and the accompanying infrastructure. In addition, twelve of the ACECs overlay all or a portion of the connectivity corridors identified by Magness et al (2018). We request that the ACEC R&I values be adjusted to incorporate this additional value, and that mineral withdrawals be placed over these corridors as well. These corridors connect Gates of the Arctic National Park and Preserve and Kanuti NWR, between Yukon Flats and Kanuti NWRs (including the Jim River ACEC), between Kanuti and Koyukuk NWRs, Koyukuk and Innoko, and Koyukuk and Nowitna NWRs. Lastly, 8 of the 31 proposed ACECs largely encompass 7 of the 11 rivers suitable for inclusion into the Wild and Scenic River System. Protections through mineral withdrawals would also protect these suitable rivers until they are designated into the WSR system.	To be considered for designation as an ACEC, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the resources where ACECs would not be designated.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	37	Areas of Critical Environmental Concern	211.0100.00	Alternative B currently recommends the designation of 31 areas as ACECs and RNAs. We support the addition of the Upper Teedriinjik (also known as Chandalar River) that supports the largest enumerated spawning aggregation of fall chum salmon in the Yukon River drainage (one-third of the Yukon River run), as well as numerous spawning and rearing chinook salmon (2-4 % of the Yukon River run). Both populations are in decline and require adequate water quality and quantity protection from upstream impacts for adequate function. These waters provide significant subsistence resources for the villages of Venetie, Fort Yukon, and Arctic Village and it is highly likely that, based on public testimony of the historic use of this area, other undocumented cultural resources exist (elevated Chuttoh Bluffs adjacent to these waters receive moose and furbearer harvest subsistence use). Recent fisheries research conducted in the Upper Teedriinjik (Clawson 2017) identified upwelling waters from groundwater discharge and stream morphology as contributing to the high spawning rates in this region. They concluded that any anthropogenic change that degrades a portion of the river's habitat could restrict the fish population's ability to withstand future changes in climate. We request the BLM portion of the watershed of the Upper Teedriinjik, a unique subsistence fishery and aquatic habitat, be designated an ACEC along with retention of PLOs 5173, 5179 and 5180 as our preference for conservation of the Upper Teedriinjik. To protect these unique relevance and importance values, the Service requests the BLM maintain withdrawals within the 100-year floodplain of all flowing waterbodies in the proposed ACEC until such time that they can be replaced with FLPMA withdrawals or BLM modifies existing withdrawals to protect ACEC values and the 100-year floodplain. Furthermore, we request BLM manage the lands within the proposed ACEC as lands with wilderness characteristics to protect this value as a priority over other multiple uses. We request additional protections including ROW exclusion areas within the 100-year floodplain, which serves to protect the waters and aquatic resources. In addition we request all applicable SOPs be made management decisions for the proposed ACEC. Finally, this designation would facilitate the maintenance of species diversity because it would serve as a connectivity corridor from protected areas to the south and east (Yukon Flats NWR and Venetie Reservation) and to the west, namely the South Fork Koyukuk and Jim River ACECs. From a BLM and USFWS evaluation this areas meets the relevance and importance criteria in the ACEC application. Please provide justification if the Upper Teedriinjik is not designated as an ACEC.	To be considered for designation as an ACEC, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which were developed considering the ACECs nominated for designation, including both internal and external nominations. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. The potential Upper Teedriinjik River ACEC would remain undesignated under the Proposed Plan, however, the entire potential ACEC would remain withdrawn from locatable mineral entry and fluid mineral leasing, as under Alternative A. The Jim River and South Fork Koyukuk ACECs would remain designated under the Proposed Plan.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	38	Areas of Critical Environmental Concern	211.0100.00	Proposed ACEC Upper Teedriinjik and Venetie Block Visual Resources The Ambler-Chandalar Ridge and Lowland received a Class A Rating in the Visual Resource Inventory report. The Ambler-Chandalar Ridge and Lowland is a narrow band extending east-west across most of the state and it includes the area between the southern flanks of the Brooks Range and the broad sweeping valleys of the Chandalar River, which in part is represented by the Venetie Block and the proposed Upper Teedriinjik ACEC. The area is stunning and the Class A rating justified. Further, the Kokrine-Hodzana Highlands, covers this region as well, and is a transition from the Ambler-Chandalar Ridge and Lowland, extending from the East Fork of the Teedriinjik River, to just northeast of Ruby. It too received a Class A visual rating. Class A ratings indicate a landscape with "...a great deal of visual variety, contrast and harmony." Visual Sensitivity: the Chandalar River valley may receive fewer visitors than the Dalton Highway Corridor but it still retains high scenic quality which should not be dismissed because of its lack of visitation. Visitors to the Chandalar area are acutely aware of its high scenic value and "...view the natural landscape as very important and have a high level of interest and sensitivity to changes in the natural landscape." The broad valleys of the Chandalar offer visibility from a long distance so it's unclear why this region was rated as a seldom seen zone. We recommend the final EIS preferred alternative maintain a visual quality as high in the Venetie Block of lands, which encompasses the Upper Teedriinjik ACEC, and that they be managed for VRI Class I, II at a minimum and VRM at Class I. As we stated previously, we urge BLM to designate the Upper Teedriinjik ACEC for its valuable fish, soil and water resources in a new final preferred alternative. We urge the BLM to retain withdrawals until a new FLPMA withdrawal is put in place. Furthermore, we request that the final preferred alternative manage the entire ACEC according to VRM Class I objectives, for preservation of the landscape. This class precludes very limited management activity, at a level of change that must not attract attention. This is justified since the area is outstandingly beautiful and fitting of such a class I designation. Furthermore, much of the eastern portion of the proposed ACEC is within the Teedriinjik floodplain. Additionally, we request BLM require a Right of Way Exclusion zone within the 100-year floodplain of not only this section but in the headwater tributaries of the West Fork Teedriinjik (to prevent OHV use and commercial timber development), and that existing mineral withdrawals be retained in the 100-year floodplain until new FLPMA withdrawals are put in place. Alternatives C1 and C2 (DEIS preferred alternative) revokes withdrawals/PLOs and open the entire area to mineral and fluid entry and material sales, degrading the R&I values for which the proposed area was recognized needing special management. Given the explicit direction from floodplain and wetland executive orders, we request that BLM develop management actions that protect floodplains and wetlands in the proposed Upper Teedriinjik ACEC and be required across all action alternatives.	To be considered for designation as an ACEC, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which were developed considering the ACECs nominated for designation, including both internal and external nominations. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres. The Upper Teedriinjik River ACEC would be designated under the Proposed Plan, and the entire potential ACEC would remain withdrawn from locatable mineral entry and fluid mineral leasing, as under Alternative A.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	63	Areas of Critical Environmental Concern	211.0100.00	In addition to ecological benchmarks, other elements of the Conservation Matrix Model design (Figure 1) include site-specific areas that "capture values that may not be well represented within benchmark areas" and require special protection. In the Central Yukon planning area, we believe it is necessary that the 31 existing or proposed ACECs, listed under Alternative B, be designated as ACECs under all action alternatives to serve this role in protecting unique resource values (e.g. salmon and sheefish spawning areas). The other elements of a conservation matrix model are what BEACONs (2017) called active management zones, "potential development areas, but still managed under the principals of ecological sustainability and adaptive management." Within this zone, land managers identify permanent infrastructure and discreet active management sites, sized and managed to reduce uncertainty in outcomes and to identify ecologically sustainable practices.	To be considered for designation as an ACEC, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which were developed considering the ACECs nominated for designation, including both internal and external nominations. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	71	Areas of Critical Environmental Concern	211.0100.00	For this reason we believe it necessary that BLM should establish a foundational range for its alternatives based on allocating a range of acreages across the alternatives that would be managed so as to protect characteristics necessary to meet LWC classification as the priority. The remaining land area under each alternative would then be open to allocate to other more development-oriented actions such as mineral development, timber harvest, or ROWs. This method of allocation would be compatible with the identification of discrete management areas for intensive land use under the BEACON adaptive management strategy identified for use under all action alternatives. It would also lend itself to the protection of resources that are compatible with managing for LWCs such as 100-year floodplains, high-value watersheds, wetlands, and the unique resources identified within the proposed ACECs.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	82	Areas of Critical Environmental Concern	211.0100.00	Considering law, policy, and public and cooperator requests, we urge ACECs be designated and protected as required. Shortcomings of the Draft Plan in Regard to the Protection of ACEC Relevance & Importance Values. Two of the assumptions for analysis presented in Appendix T, p. T-5 are that: Permitted activities are assumed to have mitigations proposed so as not to impair the R&I values for which an ACEC is designated. The exception is locatable minerals; until withdrawn from mineral entry, a mining claim can be filed, and subsequent mining could affect R&I values of the ACEC. [emphasis added] Impacts resulting from locatable minerals would be subject to 43 CFR 3809, intended to (1) prevent unnecessary or undue degradation of the land and reclaimed disturbed areas, and (2) provide for maximum possible coordination with state agencies to avoid duplication and to ensure that operators prevent unnecessary or undue degradation of public lands. With these stated assumptions, BLM acknowledges that mining for locatable minerals may in fact impact R&I values. Despite BLM's acknowledgement that locatable mineral mining may degrade ACEC R&I values, and their statement, BLM recommends opening additional lands to mineral entry under each of the action alternatives. In Table 2-1, Alternative B proposes 3,657,000 acres be designated as ACECs for their high aquatic resource value. These acres of aquatic ACEC correspond to acres of high-value watersheds . As shown in Table 3-12, Alternative B (the least development-oriented alternative), approximately 6% (244,000 acres) of high-value watersheds would be protected through mineral withdrawal. Alternative C1 would protect a similar amount and Alternatives C2 and D would not protect any high-value watersheds.	To be considered for designation as an ACEC, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under the Proposed Plan are sufficient to protect the resources where ACECs would not be designated. The BLM appropriately evaluated a reasonable range of alternatives, which were developed considering the ACECs nominated for designation, including both internal and external nominations. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.

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Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	83	Areas of Critical Environmental Concern	211.0100.00	We do not see any mechanism that BLM can take that protects R&I values other than mineral withdrawals. We request all 31 existing, expanded and proposed ACECs in Alternative B be designated and request mineral withdrawals be maintained or modified where they overlay the proposed ACECs and appropriate withdrawals pursued, where lacking, that close the areas to mining, to provide the necessary protection to R&I values of all 31 ACECs in regard to mining and the accompanying infrastructure. In addition, twelve of the ACECs overlay all or a portion of the connectivity corridors identified by Magness et al (2018). We request that the ACEC R&I values be adjusted to incorporate this additional value, and that mineral withdrawals be placed over these corridors as well. These corridors connect Gates of the Arctic National Park and Preserve and Kanuti NWR, between Yukon Flats and Kanuti NWRs (including the Jim River ACEC), between Kanuti and Koyukuk NWRs, Koyukuk and Innoko, and Koyukuk and Nowitna NWRs. Lastly, 8 of the 31 proposed ACECs largely encompass 7 of the 11 rivers suitable for inclusion into the Wild and Scenic River System. Protections through mineral withdrawals would also protect these suitable rivers until they are designated into the WSR system.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated reasonable range of alternatives, which included considering nominated ACECs for designation. Alternative E, the Proposed Plan, was developed from the range of alternatives and would designate 21 ACECs covering 3,611,000 acres.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	84	Areas of Critical Environmental Concern	211.0100.00	We request the BLM portion of the watershed of the Upper Teedriinjik, a unique subsistence fishery and aquatic habitat, be designated an ACEC along with retention of PLOs 5173, 5179 and 5180 as our preference for conservation of the Upper Teedriinjik. To protect these unique relevance and importance values, the Service requests the BLM maintain withdrawals within the 100-year floodplain of all flowing waterbodies in the proposed ACEC until such time that they can be replaced with FLPMA withdrawals or BLM modifies existing withdrawals to protect ACEC values and the 100-year floodplain. Furthermore, we request BLM manage the lands within the proposed ACEC as lands with wilderness characteristics to protect this value as a priority over other multiple uses. We request additional protections including ROW exclusion areas within the 100-year floodplain, which serves to protect the waters and aquatic resources. In addition we request all applicable SOPs be made management decisions for the proposed ACEC. Finally, this designation would facilitate the maintenance of species diversity because it would serve as a connectivity corridor from protected areas to the south and east (Yukon Flats NWR and Venetie Reservation) and to the west, namely the South Fork Koyukuk and Jim River ACECs. From a BLM and USFWS evaluation this areas meets the relevance and importance criteria in the ACEC application. Please provide justification if the Upper Teedriinjik is not designated as an ACEC.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	85	Areas of Critical Environmental Concern	211.0100.00	We request the BLM portion of the watershed of the Upper Teedriinjik, a unique subsistence fishery and aquatic habitat, be designated an ACEC along with retention of PLOs 5173, 5179 and 5180 as our preference for conservation of the Upper Teedriinjik. To protect these unique relevance and importance values, the Service requests the BLM maintain withdrawals within the 100-year floodplain of all flowing waterbodies in the proposed ACEC until such time that they can be replaced with FLPMA withdrawals or BLM modifies existing withdrawals to protect ACEC values and the 100-year floodplain. Furthermore, we request BLM manage the lands within the proposed ACEC as lands with wilderness characteristics to protect this value as a priority over other multiple uses. We request additional protections including ROW exclusion areas within the 100-year floodplain, which serves to protect the waters and aquatic resources. In addition we request all applicable SOPs be made management decisions for the proposed ACEC. Finally, this designation would facilitate the maintenance of species diversity because it would serve as a connectivity corridor from protected areas to the south and east (Yukon Flats NWR and Venetie Reservation) and to the west, namely the South Fork Koyukuk and Jim River ACECs. From a BLM and USFWS evaluation this areas meets the relevance and importance criteria in the ACEC application. Please provide justification if the Upper Teedriinjik is not designated as an ACEC.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	86	Areas of Critical Environmental Concern	211.0100.00	The Ambler-Chandalar Ridge and Lowland received a Class A Rating in the Visual Resource Inventory report. The Ambler-Chandalar Ridge and Lowland is a narrow band extending east-west across most of the state and it includes the area between the southern flanks of the Brooks Range and the broad sweeping valleys of the Chandalar River, which in part is represented by the Venetie Block and the proposed Upper Teedriinjik ACEC. The area is stunning and the Class A rating justified. Further, the Kokrine-Hodzana Highlands, covers this region as well, and is a transition from the Ambler-Chandalar Ridge and Lowland, extending from the East Fork of the Teedriinjik River, to just northeast of Ruby. It too received a Class A visual rating. Class A ratings indicate a landscape with "...a great deal of visual variety, contrast and harmony." Visual Sensitivity: the Chandalar River valley may receive fewer visitors than the Dalton Highway Corridor but it still retains high scenic quality which should not be dismissed because of its lack of visitation. Visitors to the Chandalar area are acutely aware of its high scenic value and "...view the natural landscape as very important and have a high level of interest and sensitivity to changes in the natural landscape." The broad valleys of the Chandalar offer visibility from a long distance so it's unclear why this region was rated as a seldom seen zone. We recommend the final EIS preferred alternative maintain a visual quality as high in the Venetie Block of lands, which encompasses the Upper Teedriinjik ACEC, and that they be managed for VRI Class I, II at a minimum and VRM at Class I.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	87	Areas of Critical Environmental Concern	211.0100.00	As we stated previously, we urge BLM to designate the Upper Teedriinjik ACEC for its valuable fish, soil and water resources in a new final preferred alternative. We urge the BLM to retain withdrawals until a new FLPMA withdrawal is put in place. Furthermore, we request that the final preferred alternative manage the entire ACEC according to VRM Class I objectives, for preservation of the landscape. This class precludes very limited management activity, at a level of change that must not attract attention. This is justified since the area is outstandingly beautiful and fitting of such a class I designation. Furthermore, much of the eastern portion of the proposed ACEC is within the Teedriinjik floodplain. Additionally, we request BLM require a Right of Way Exclusion zone within the 100-year floodplain of not only this section but in the headwater tributaries of the West Fork Teedriinjik (to prevent OHV use and commercial timber development), and that existing mineral withdrawals be retained in the 100-year floodplain until new FLPMA withdrawals are put in place. Alternatives C1 and C2 (DEIS preferred alternative) revokes withdrawals/PLOs and open the entire area to mineral and fluid entry and material sales, degrading the R&I values for which the proposed area was recognized needing special management. Given the explicit direction from floodplain and wetland executive orders, we request that BLM develop management actions that protect floodplains and wetlands in the proposed Upper Teedriinjik ACEC and be required across all action alternatives.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources.

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Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	88	Areas of Critical Environmental Concern	211.0100.00	As we stated previously, we urge BLM to designate the Upper Teedriinjik ACEC for its valuable fish, soil and water resources in a new final preferred alternative. We urge the BLM to retain withdrawals until a new FLPMA withdrawal is put in place. Furthermore, we request that the final preferred alternative manage the entire ACEC according to VRM Class I objectives, for preservation of the landscape. This class precludes very limited management activity, at a level of change that must not attract attention. This is justified since the area is outstandingly beautiful and fitting of such a class I designation. Furthermore, much of the eastern portion of the proposed ACEC is within the Teedriinjik floodplain. Additionally, we request BLM require a Right of Way Exclusion zone within the 100-year floodplain of not only this section but in the headwater tributaries of the West Fork Teedriinjik (to prevent OHV use and commercial timber development), and that existing mineral withdrawals be retained in the 100-year floodplain until new FLPMA withdrawals are put in place. Alternatives C1 and C2 (DEIS preferred alternative) revokes withdrawals/PLOs and open the entire area to mineral and fluid entry and material sales, degrading the R&I values for which the proposed area was recognized needing special management. Given the explicit direction from floodplain and wetland executive orders, we request that BLM develop management actions that protect floodplains and wetlands in the proposed Upper Teedriinjik ACEC and be required across all action alternatives.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources.
Fox	Joanna	U.S. Fish and Wildlife Service	Kanuti National Wildlife Refuge	208	9	Areas of Critical Environmental Concern	211.0100.00	We agree with the draft CYRMP goal to "provide special management attention needed 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." However, the objective to maintain the long-term sustainability of the relevant and important (R&I) values for which ACECs are designated cannot be met under the Preferred Alternative (C2), under which no ACECs will be designated. Under this alternative, all of the acreage would be available for locatable mineral entry, fluid mineral entry and commercial timber development, and open to mineral material sales, potentially resulting in downstream degradation of aquatic habitat and fish and wildlife resources, contamination of surface water, and disturbance to wildlife.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources.
Fox	Joanna	U.S. Fish and Wildlife Service	Kanuti National Wildlife Refuge	208	10	Areas of Critical Environmental Concern	211.0100.00	We strongly agree with the draft Central Yukon RMP statement that protection of R&I values would be greatest under Alternative B, and of the alternatives presented, we prefer it as it pertains to ACECs because it's the only one that would: (1) include and expand the existing Jim River ACEC; (2) include the entire proposed Tozitna ACEC; and (3) designate the entire potential South Fork Koyukuk River ACEC and potential Upper Kanuti River ACEC. The designation and consequent direct management action protections provided by these ACECs will help prevent serious impacts to fish, wildlife, and habitat resources and help protect subsistence hunting and fishing opportunities in Kanuti NWR downstream of and adjacent to BLM lands. However, even the designations proposed in Alternative B would not provide adequate protection to refuge resources. We request BLM revisit the recommendations we made during the development of alternatives. Specifically, we ask that BLM either (a) increase the extent of the currently proposed Upper Kanuti River and "Ray Mountains/Tozitna" ACECs to include the entire watersheds, extending from the headwaters of the Kanuti River and Kanuti-Kilolitna River, respectively (see originally proposed ACEC boundaries from 2014 for these two), downstream to the Kanuti NWR boundary, or, (b) create two special watershed management zones for the entire Kanuti River and Kanuti-Kilolitna River watersheds within BLM management that will employ the most stringent permitting procedures.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources.
Fox	Joanna	U.S. Fish and Wildlife Service	Kanuti National Wildlife Refuge	208	11	Areas of Critical Environmental Concern	211.0100.00	We also support inclusion of the Alatna River ACEC, which has been approved in both Alternatives B and C1. This nominated ACEC encompasses the only spawning reach on BLM-managed lands in the entire upper Koyukuk River drainage that supports all five whitefish species. This area is also the only documented location in the upper Koyukuk River drainage where sheefish and broad whitefish spawn. This subsistence fishery of whitefish is critical to the villages of Alatna and especially Allakaket, for whom non-salmon fish (i.e., primarily whitefish species) make up the highest percentage of their diet (Fig. Q-2 on page Q-9).	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources.
Fox	Joanna	U.S. Fish and Wildlife Service	Kanuti National Wildlife Refuge	208	12	Areas of Critical Environmental Concern	211.0100.00	We further recommend retention of existing Kanuti Hot Springs ACEC as in Alternatives A and B. This ACEC, while east of the Refuge, serves as an additional high-quality recreational and natural destination for those visiting the Refuge via the Kanuti River from the Dalton Highway.	To be eligible for further consideration for designation, an area must be evaluated for its R&I values. The presence of these values alone, however, does not warrant designation. ACEC designations are defined by the management prescriptions needed to protect R&I values. Depending on the nature of resources and their environments, management prescriptions can vary, from few and largely passive to many and highly intensive. Whatever the management needs for the R&I values, they must be weighed against the background management of an area to determine whether special management attention is still required to protect the values. The BLM has determined that the background management prescriptions under each of the alternatives are sufficient to protect the resources.
Costello	Naomi	Evansville Tribal Council	None	107	25	Best available information-baseline data	103.0500.00	The SOPs currently lack clear provisions for baseline studies and monitoring for impacts on landscapes, high value watersheds and single resources of discontinuous permafrost, soils, hydrology, cultural resources, wildlife, and subsistence. Such studies will be especially important for involving tribal governments in innovative "benchmark SOPs" that should integrate local cultural knowledge in long-term adaptive management monitoring throughout the life of the current RMP.	Many Chapter 2 actions for several resources involve monitoring requirements. Such monitoring could help to inform condition trends for benchmarks.
Crockett	Deantha	Alaska Miners Association	None	199	96	Best available information-baseline data	103.0500.00	Many references cited are only to internal BLM documents (staff reports, memos, even "email communications" (BLM 2018b)) that are neither peer-reviewed nor available for public review. Some are incomplete - Barros et al, 2014 references a report with no indication of a publisher or pagination. Others refer to unpublished material of uncertain origin; e.g. Carlson et al, 2016 and Ives and Schick, 2016, for example reference unpublished documents "prepared for" various agencies with no idea who the authors work for, their position or credentials, the length of the documents, where they exist, or to whom they might be available. The standards for scientific documentation should be adhered to. Any reference that is not to a publicly available journal or government document source, must include an active web-link for the reviewing public to be able to read and evaluate the documents themselves, and a verification date for the last known access to the web-link.	All documents, except those containing sensitive information and exempt under the Freedom of Information Act, are available for public review from the Central Yukon Field Office. The references have been updated to include web links where available.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	34	Best available information-baseline data	103.0500.00	The SOPs currently lack clear provisions for baseline studies and monitoring for impacts on landscapes, high value watersheds and single resources of discontinuous permafrost, soils, hydrology, cultural resources, wildlife, and subsistence. Such studies will be especially important for involving tribal governments in innovative "benchmark SOPs" that should integrate local cultural knowledge in long-term adaptive management monitoring throughout the life of the current RMP.	Many chapter 2 actions for several resources involve monitoring requirements. Such monitoring could help to inform condition trends for benchmarks.
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Thorne	Rich	No organization name	None	5	5	Consistency with other plans/policies	107.0000.00	What is the relationship of the CYRMP to the Alaska Statehood Compact land selection and conveyance?	The RMP and the Alaska Statehood Compact land selection and conveyance are separate actions.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Costello	Naomi	Evansville Tribal Council	None	107	18	Consistency with other plans/policies	107.0000.00	An omission in the current draft resource management plan is reference to and integration of the Stevens Village Traditional Land Use Plan in the evaluation of environmental consequence in the Dalton Highway corridor.33 The western zone of the Stevens Village customary and traditional use area intersects the PLO 5150 and needs to be evaluated in the alternatives. Further, BLM should investigate as to whether other communities have land use plans, which should be respected in the Central Yukon planning process. 33 Stevens Village Traditional Land Use Plan (1991, 1999).	BLM reviewed non-BLM land use plans (state, municipal, and tribal) including the 1991 Comprehensive Land Use Plan For The Traditional Lands of Stevens Village in the development of this RMP, now reflected in Appendix D and the references to it in the RMP/EIS. The intersection of the western zone of the Stevens Village customary and traditional use area with PLO 5150, in context of the recommended revocation of the PLO 5150, was added to analysis in Chapter 3 (Section 3.5.2, Subsistence). The Proposed Plan, Alternative E, was developed in consideration of these concerns and makes no recommendation for the revocation of Public Land Orders.
Richards	Frank	Alaska Gasline Development Corporation	None	138	8	Consistency with other plans/policies	107.0000.00	Appendix G Adaptive Management Framework is Complicated, Confusing and as a result, will be Difficult for BLM to Implement. The employment of Ecological Benchmarks (BEACONS) and Connectivity Corridors in particular appear to have the potential to allow BLM land managers to alter decisions made in the formal RMP process without going through a subsequent public process. Issue: a. It appears that the Adaptive Management Framework will allow the BLM to effectively make material changes to the RMP, including the Appendix F SOP's, based upon changing conditions but without formal Amendments to the Plan. This could effectively nullify the RMP for areas designated as Connectivity Corridors. b. Particularly troubling are the BEACONS concepts that will allow for "rapid (emphasis added) ecoregional assessments and other landscape assessments" and the extensive Connectivity Corridors that aspire to manage BLM lands across "landscapes" that include non-BLM lands within the Planning Area. This concept connects federal Conservation System Units (CSU's) that are not even within the CYRMP Planning Area (Gates of the Arctic and ANWR). Further, because the Management Framework for BLM lands may be adapted to the management of these CSU's, the concept is contrary to the ANILCA "no more" clause. c. We also note the problematic language in Appendix F.2.16: Discretionary land uses may not be authorized in BLM-managed watersheds within to (sic) benchmarks if they will result in the temporary or permanent disruption of hydrologic connectivity in any watershed such that the next higher or lower order watersheds are disconnected from each other because of the proposed action. Avoiding the temporary disruption of hydrology is an almost impossible standard for the construction of large linear construction projects, such as Alaska LNG. These types of temporary construction impacts are effectively avoided, minimized and mitigated by FERC requirements, existing permit stipulations, and existing federal/state/local regulations. d. F.2.16 also states that discretionary land uses may not be authorized in BLM-managed watersheds if they result in temporarily or permanently reducing intactness below 85 percent in any watershed that contributes to the makeup of a benchmark area. The 85% standard appears to be arbitrary and the indicators for the standard are not clear. e. For these reasons AGDC also opposes the incorporation of F.2.15 Connectivity Corridors (LANDSCAPE) and F.2.16 Ecological Benchmarks (BENCHMARK) in Appendix F. Standard Operating Procedures and Fluid Mineral Leasing Stipulations. Resolution: AGDC requests that the BLM discard the Adaptive Management Framework, the use of "rapid ecoregional assessments," and the proposed "landscape-scale adaptive management strategy." In particular, AGDC opposes the inclusion of Connectivity Corridors and Ecological Benchmarks in Appendix G and in Appendix F at 2.15 and 2.16. If BLM decides to adopt the standards, AGDC requests BLM clarify they do not apply to the Alaska LNG Project when they have requirements beyond those defined in the Project's EIS, ROD, current ROW grant or other existing permit stipulations and regulations.	The BLM added text to **Appendix G**, Adaptive Management Framework, noting that the connectivity corridors and ecological benchmarks are derived from the best available data. Modeled data is the best available data in this case; ground-truthed data are not available. The BLM added text to **Appendix G**, Adaptive Management Framework, about quantifying the impacts of the alternatives on connectivity corridors and ecological benchmarks. The SOPs about connectivity and benchmarks were moved from **Appendix F**, SOPs and Fluid Mineral Leasing Stipulations, to **Appendix G** to better reflect that they are landscape management features and not SOPs.
Magee	Susan	State Of Alaska	None	165	26	Consistency with other plans/policies	107.0000.00	The Standard Operating Procedures (SOPs) that apply to Connectivity Corridors and Ecological Benchmarks (Appendix F, F.2.15 and F.2.16, pages F-14 and F-15) provide specific management intent for these areas and have the potential to significantly restrict use and access even though consideration in the impact analysis is limited to perceived positive impacts of the implementation of these concepts, such as BLM being adaptable to climate change impacts and protections afforded wildlife. For example, Connectivity Corridors include a stipulation (i.e., SOP Landscape - 1) that discretionary activities will only be authorized in the corridor when "no other feasible alternative exists." These linear restricted use corridors bisect the only multiple-use lands between the CSUs; thereby expanding the CSUs and rendering the lands non-multiple use lands by restricting available resource uses and potentially eliminating the possibility of a linear ROW through these areas, including within the Utility Corridor. The SOPs for Benchmark - 1 (Alternatives B and C1, page F-15) states discretionary land uses may not be authorized for various reasons, including any that "temporarily (emphasis added) or permanently disrupt hydrologic connectivity in any watershed such that the next higher or lower order watersheds are disconnected from each other because of the proposed action" and those that "temporarily (emphasis added) or permanently reduce intactness below 85 percent in any watershed that contributes to the makeup of a benchmark area." Adding to the confusion are conflicting SOPs, such as those in Appendix F, which indicate ecological benchmarks for intactness of 85% for watersheds, and Appendix G, which states intactness benchmarks in general are a system at 80% intactness. BLM has also not provided definitions for the terms "disrupt" and "intactness." A 15% reduction in watershed "intactness" is meaningless if the term is not defined. SOP Benchmark - 3 requires BLM to consult with managers of non-BLM-managed lands in the benchmark when determining whether to authorize discretionary actions. BLM has not defined the range of discretionary actions to provide context on what this is addressing. The conservation purposes of the Benchmark areas and Connectivity Corridors, as well as language on page G-5, causes us to come to the logical conclusion that, similar to the consultation that occurred during the development of these adaptive management concepts, BLM intends to only consult with CSU-managers, despite the direction in department policies and FLPMA to consult with all stakeholders, including states, as well as much of the science supporting the methodologies used in the plan. A form of consultation would typically occur during the permitting process when a proposed project is near the legal boundaries of a CSU; this SOP extends the reach and influence of CSU managers well beyond the legal recorded CSU boundaries onto BLM multiple-use lands. Additionally, the Benchmark SOPs apply to considerable acreage - under Alternative B, this requirement applies to 5.5 million acres of BLM multiple use land; under Alternative C1, the affected acreage is 2.2 million. While also applying to significant acreage as shown on Map G-3 (page G-9), no acreage is provided in the draft plan for the connectivity corridors. The State consistently questioned the basis for these management concepts throughout the planning process and requested BLM not implement unofficial policy that conflicts with ANILCA. Any adaptive management strategy selected for the Central Yukon planning area must recognize that Congress already preserved 100 million acres of large intact ecosystems across the state when it passed ANILCA and BLM lands located between those CSUs should remain available for multiple-use to support the State's social and economic development needs. It is further problematic that the primary foundational premise of these management directives is based on theoretical assumptions and presuppositions based on the connectivity concept being used to direct management in the CYRMP and generate after-the-fact justifications for management implementation. We reiterate our request to remove both concepts from the plan and require much closer coordination on this subject matter	While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives related to connectivity corridors and ecological benchmarks. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Magee	Susan	State Of Alaska	None	165	33	Consistency with other plans/policies	107.0000.00	Compatibility with State Plans, Policies, and Programs Section 202(c)(9) of FLPMA requires BLM to "…coordinate the land use inventory, planning, and management activities…" on federal public lands "…with the land use planning and management programs… of the States and local governments within which the lands are located." This section further provides that the "Secretary shall, to the extent [he or she] finds practical… assure that consideration is given to those State, local, and tribal plans…" and "…assist in resolving, to the extent practical, inconsistencies between Federal and non-Federal Government plans." 1. State Area Plans * Issues: o The draft plan imposes proposed access related decisions (e.g., ROW exclusion and avoidance designations and seasonal travel management restrictions) without detailed inventory and analysis of existing use and access, which are premature and potentially interfere with access to and across land ownerships, and state land use objectives. o The draft plan fails to include standard conditions consistent with State Generally Allowed Uses (GAUs). * Resolution: o Defer all travel management decisions to step down plans. o Only apply interim travel management restrictions that are consistent with State GAUs. o Do not apply ROW avoidance and exclusion area designations that would interfere with the access needs of the public and the State and other landowners in the planning area. o Provide access consistent with the State's GAUs, as well as the conditions for GAUs found in 11 AAC 96.025. * Discussion: The Alaska Department of Natural Resources (DNR) assessed the State's land base, including state selected BLM lands, and provided management intent and recommendations for certain lands within the State land use and corridor plans (listed below) that encompass the CYRMP planning area. Even though all the Central Yukon planning area is not specifically addressed in these plans, BLM can assume state management generally would be consistent with multiple-use management (as discussed below). For selected and top-filed lands, once conveyed, the State would initiate planning for the newly acquired lands, which includes an assessment of lands and resource values and a public process to ensure the public input is received on the proposed management direction. * North Slope Area Plan - March 2021 * Eastern Tanana Area Plan - August 2015 * Yukon Tanana Area Plan - January 2014 * Northwest Area Plan - October 2008 * Dalton Highway Master Plan - March 1998 The CYRMP proposed management decisions, primarily found in alternative B, are not consistent with management policies and recommendations contained in the state land use plans or with the State's GAUs on state land. These inconsistencies exist even though the statutory direction of FLPMA and the later adopted state statutes as they relate to overarching state policies and the planning requirements are substantially similar.23 23 FLPMA requires that BLM seek to protect the quality of resources, preserve and protect certain lands to provide for use by the public and fish and wildlife resources while at the same time recognize the national need for domestic production of renewable and nonrenewable resources. The State constitution, statues, and regulations direct the state to manage its resources for multiple use and sustained yield, AS 38.04.015 (1)-(3). FLPMA Sec 102 (8) and implementing regulations at 43 CFR 1701(a) similarly direct BLM to manage resources on a multiple use basis by providing for outdoor recreation and human occupancy and use. FLPMA Section 202(c)(9) states that the criteria for development and revision plans includes the direction that BLM land use plans "shall be consistent with State and local plans to the maximum extent [the Secretary] finds consistent with Federal law and the purposes of this Act."	Thank you for your comment. The BLM considered state and other land use plans in the developing the range of considered alternatives.
Magee	Susan	State Of Alaska	None	165	34	Consistency with other plans/policies	107.0000.00	State Generally Allowed Uses (GAUs) As noted in state comments on other planning efforts and prior comment opportunities for the CYRMP, to be consistent with State plans, policies, and programs, the RMP should not impose travel management restrictions that are more restrictive than the State's GAUs, including the conditions for GAUs found in 11 AAC 96.025. This will have a profound effect on the public's ability to travel throughout the planning area, as they could be subject to criminal charges if they inadvertently cross from State land onto BLM land. Similarly, restrictions placed on "unnavigable" portions of rivers create undetermined boundaries that the public could unknowingly cross with a watercraft, which again, would result in criminal charges. Until travel management step down plans are completed that include a complete inventory and fully consider (including public input) the existing uses and resource conditions, it is premature to apply restrictions that could interfere with public use and access across the planning area. The public would benefit from a step-down plan that accurately describes existing easements and trails, inventory the status and the current condition of all easements and trails, and efforts to ensure that easements are continuous. Further, doing so will reduce trespass issues and assist the public in gaining legal access to mining claims and public use areas.	The RMP identified travel management areas in a minimum interim decision for a weight limitation. Specific travel management decisions will be analyzed in the implementation-level plans which will review all limitations.
Schutt	Aaron	Doyon Limited	None	173	28	Consistency with other plans/policies	107.0000.00	Because there is no current management direction for wilderness characteristics on BLM-managed public lands within the Planning Area, there is no basis to determine consistency of BLM wilderness characteristics with neighboring landowners. Therefore, consistency would be accomplished in the RMP by incorporating the wilderness characteristics policies, programs, and provisions of public land laws and regulations as directed by the BLM RMP guidance found in 43 CFR 1610.3-2(b). Importantly, with regard to this RMP, these public land laws and regulations include ANILCA, ANCSA, and associated implementing regulations, including their provisions governing access. See Draft RMP, p. D1 ("In Alaska, public land management is further directed by the Alaska National Interest Lands Conservation Act, the Alaska Native Claims Settlement Act, and the Alaska Statehood Act, particularly in regard to land tenure, access, and subsistence."). Management of lands in the planning area to prioritize the protection of wilderness characteristics would be inconsistent with ANILCA's balancing of the "protection for the national interest in the scenic, natural, cultural and environmental values on the public lands in Alaska" with the "opportunity for satisfaction of the economic and social needs of the State of Alaska and its people," and with ANCSA's settlement of aboriginal land claims.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The public was able to provide comments on the Draft RMP/EIS and provide feedback pertaining to NEPA adequacy, including the range of alternatives considered. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS. BLM management of lands with wilderness characteristics only applied to BLM-managed lands.
Borell	Steven	Borell Consulting Services LLC	None	176	6	Consistency with other plans/policies	107.0000.00	The U.S. policy as stated in Executive Order on America's Supply Chains dated February 24, 2021, is to have "…resilient, diverse, and secure supply chains…and facilitating greater domestic production…" This RMP can and must focus on obtaining and domestically producing REEs and the other strategic and critical minerals in order to comply with this important policy.	The BLM considered any and all applicable Secretarial Orders in review of the effects of the analysis.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	27	Consistency with other plans/policies	107.0000.00	An omission in the current draft resource management plan is reference to and integration of the Stevens Village Traditional Land Use Plan in the evaluation of environmental consequence in the Dalton Highway corridor.33. The western zone of the Stevens Village customary and traditional use area intersects the PLO 5150 and needs to be evaluated in the alternatives. Further, BLM should investigate as to whether other communities have land use plans, which should be respected in the Central Yukon planning process. 33 Stevens Village Traditional Land Use Plan (1991, 1999).	We added the Stevens Village Traditional Land Use Plan to **Appendix D**, Relationship to BLM Policies, Plans, and Programs, Section D.3.5 Tribal or ANCSA Corporation Plans.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	44	Consistency with other plans/policies	107.0000.00	The mixed language and seemingly contradictory statements described for SOPs in Appendix F-1 and Chapter 3, makes it extremely difficult for the reader to understand exactly under which circumstances the SOPs would be required. The following are some examples: In Chapter 3, BLM's approach to the impact analysis is to implement standard operating procedures (SOPs) under all action alternatives. Likewise, Appendix F, Section 2, Standard operating procedures, states that "SOPs apply (concerning resources that are potentially affected by the action) to all actions on public land, whether the BLM implements them or if it authorizes them and they are implemented by another individual, organization, or agency." BLM states the development of SOPs was based on the Alaska Statewide Land Health Standards...." "The SOPs are requirements, procedures, management practices, and design features that the BLM will use to protect resources." Leasing stipulations are also requirements, and "SOPs and leasing stipulations generally do not restate existing requirements in regulations or laws, including state laws."	The SOPs vary by allowable uses but not by alternative specifically. BLM clarified the BEACONS and connectivity analysis in **Appendix G**, Adaptive Management Framework.
Sam	Susie	No organization name	None	28	2	Cooperating Agency relationships	103.0200.00	Because our -- of our specialized knowledge about this land, Louden Tribe applied to be a cooperating agency. In fact, we applied several times, and we have never achieved cooperating agency status	BLM appreciates the importance of this comment, and though Louden Tribe is not currently an official cooperating agency, BLM has and will continue to engage cooperatively with the tribe through this process. While the formal period for consideration and incorporation of cooperating agency comments into the Draft RMP/EIS is over, BLM will continue to consider Louden Tribe's input and is open to formally establishing cooperating agency status at any time.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Green	Charlie	Louden Tribal Council	None	35	2	Cooperating Agency relationships	103.0200.00	Because of our specialized Knowledge about this land, Louden Tribe applied to be a Cooperating Agency in the Central Yukon planning process. In fact, we applied several times. And we have never achieved Cooperating Agency Status. This needs to be corrected going forward. Since this planning process started, the Bering Sea and Interior Tribal Commission has formed to provide a way for Tribes to speak with one voice in the two active planning processes. The Tribal Commission has 33 member Tribes and formed because Tribes' concerns were being ignored by BLM in the planning process. The Biden Administration has re-authorized Executive Order 13175 that requires consultation and coordination with Tribes. The Louden Tribe expects to be approved as a Cooperating Agency as soon as possible and the Louden Tribe requests that our sovereign Tribes' wishes for protection of important watersheds be approved in the next plan version.	BLM appreciates the importance of the Louden Tribe's knowledge. Though Louden Tribe is not currently an official cooperating agency, BLM has and will continue to engage cooperatively with the Tribe through this process. While the formal period for consideration and incorporation of cooperating agency comments into the Draft RMP/EIS is over, BLM will continue to consider Louden Tribe's input and is open to formally establishing cooperating agency status at any time.
Costello	Naomi	Evansville Tribal Council	None	107	21	Cooperating Agency relationships	103.0200.00	From a longer term perspective, the plan falls short in terms of recognizing potential opportunities for co-management with tribes in the planning area. Despite the fact that tribes served as valuable cooperating agencies in the DEIS, there is no apparent role for them going forward. BLM should pursue an Alaskan specific co-management process through the cooperative agreement arrangement with the Secretary (in the form of resource baseline studies and adaptive management monitoring) or as authorized under ANILCA Section 809.	The BLM will continue to coordinate with tribes on projects implemented within the Central Yukon Field Office. Establishing cooperative agreements is beyond the scope of this planning effort.
O'Reilly-Doyle	Kathleen	No organization name	None	112	3	Cooperating Agency relationships	103.0200.00	Section 1.5 lists entities that have been consulted during this process. It does not list the Federal Subsistence Program's Regional Advisory Councils. The Councils that should be involved in this planning effort are those included within the boundaries of the planning area and those adjacent and downstream of the planning area.	The BLM has informed and updated the Federal Subsistence Program Regional Advisory Councils on the Central Yukon Resource Management Plan process at their twice annual meetings. Although the Regional Advisory Councils are not consulted with as cooperating agencies, BLM will continue to engage with the RACs about the Central Yukon Resource Management Plan.
Magee	Susan	State Of Alaska	None	165	38	Cooperating Agency relationships	103.0200.00	Meaningful Cooperation, Coordination, and Consultation - Issue: 6 The draft RMP/EIS fails to meet the intent of statute and policy direction regarding cooperating, coordinating, and consulting with the State fish and game agency, including a failure to properly describe the appropriate roll of ADF&G in future travel management actions regarding Dall sheep and caribou. * Resolution: o Clearly recognize both ADF&G and BLM roles in the planning area in accordance with the joint agency MMOU. o BLM staff should work in close coordination with ADF&G staff to define planning area management needs, in accordance with BLM's Desk Guide to Cooperating Agency Relationships (2012) o Engage in two-way dialogue with ADF&G to discuss cooperating review agency comments to cooperatively resolve concerns and improve planning area decisions (e.g., see the subsistence comment herein for an example of a worthy attempt which ultimately failed for the reasons noted). o Provide procedures for meaningful and engaged future coordination, cooperation, and consultation with the State on fish and wildlife resource issues in the planning area. o Engage ADF&G as a cooperating agency in advance of any future step-down plans associated with this draft RMP/EIS (e.g., travel management planning). * Discussion: ADF&G values its role as a cooperating agency in the planning process and looks forward to engaging in the cooperative relationship with BLM recognized formally by the MMOU. In the MMOU, BLM committed to recognizing ADF&G's role as the: o primary agency responsible for management of all uses of fish and wildlife on State and Bureau lands; o primary agency responsible for the management of use and conservation of fish and wildlife resources on Bureau lands; and o primary agency responsible for policy development and management direction relating to uses of fish and wildlife resources on State and Bureau lands. The MOU also agrees to: o incorporate the Department's fish and wildlife management objectives and guidelines in Bureau land use plans unless such provisions are not consistent with multiple use management principles established by FLMPA, ANILCA, and applicable Federal law. As stated in BLM Land Use Planning Handbook H-1601-1: Cooperation goes beyond the coordination requirement of FLPMA. It is the process by which another governmental entity…works with the BLM to develop a land use draft RMP/EIS and NEPA analysis. In principle, a cooperating agency shares the responsibility with the lead agency for organizing the planning process...including developing information and analysis for which the agency has particular expertise (page 7). Throughout the CY planning process ADF&G requested the RMP clearly recognize the respective roles of both ADF&G in fish and wildlife management and BLM in ensuring the fundamental physical and biological attributes that define land health in the planning area. We recognize that, to meet its responsibility to ensure the habitat needs of fish and wildlife resources, BLM requires information on fish and wildlife population goals to ensure associated habitat needs are identified to maintain or enhance such populations.26 26 See BLM Alaska's IM-AK-2004-023, Alaska Land Health Standards and Guidelines, which provides guidelines for achieving objectives and fulfilling the fundamental physical and biological attributes that define land health. For this reason, it is critical for BLM, as outlined in BLM Policy Handbook H1601-1 E. Fish and Wildlife, to work "in close coordination" with ADF&G staff on defining the management needs for the planning area. Despite BLM's portrayals in public meetings, ADF&G had little meaningful involvement or impact on the preparation of this document. BLM has proposed substantial management actions regarding Dall sheep, caribou, and fisheries, yet our staff received no opportunities to engage with BLM staff besides commenting on prepared documents. Collaboration on the subsistence portions of the draft planning document was an exception. Although just as constrained by unreasonable deadlines, staff from both ADF&G and BLM worked cooperatively to attempt to improve the subsistence aspects of the draft RMP/EIS. Unfortunately, BLM's efforts still fell short from producing	A land use plan is not the appropriate place to reiterate existing policies and agreements. The BLM will continue to follow all laws, regulations, and policies, as well as executed agreements.
Costello	Naomi	Evansville Tribal Council	None	107	9	Cultural Resources	208.0900.00	We greatly appreciate that BLM has determined that the places identified by Allakaket and Alatna Tribes as Traditional Cultural Properties meet the criteria for a TCP and would work with the tribes to continue the nomination process." Allakaket and Alatna are not specifically seeking to nominate these TCPs to the National Register of Historic Places, rather, they seek acknowledgment of eligibility and the consultation to which tribes are entitled through this eligibility, regardless of whether the State Historic Preservation Officer supports and advances the nomination process.17 The language providing direction on consultation should be changed to clarify that consultation is already required, regardless of whether there is any formal nomination.18 This clarification should apply to TCPs for other tribes in addition to Allakaket and Alatna on any decision that may affect cultural resources in their customary and traditional use areas. 17 See 54 U.S.C. § 300308. Historic property ("In this division, the term "historic property" means any prehistoric or historic district, site, building, structure, or object included on, or eligible for inclusion on, the National Register, including artifacts, records, and material remains relating to the district, site, building, structure, or object.") [emphasis added]; § 306108. Effect of undertaking on historic property ("The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, shall take into account the effect of the undertaking on any historic property. The head of the Federal agency shall afford the Council a reasonable opportunity to comment with regard to the undertaking.") § 302706. Eligibility for inclusion on National Register ("(a) IN GENERAL.-Property of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization may be determined to be eligible for inclusion on the National Register. (b) CONSULTATION.-In carrying out its responsibilities under section 306108 of this title, a Federal agency shall consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to property described in subsection (a).") 18 Please change DEIS 2-46 as follows: DELETE "If it is determined to be eligible for listing on the National Register of Historic Places" CHANGE FOLLOWING TO "Apply the following management to all Traditional Cultural Properties: - Consult Traditional Councils, when considering any permit applications for proposed actions in the traditional cultural property areas, including SRPs. - Send a notification letter and written description of any proposed actions to the tribes and, minimally, discuss the proposed action with the tribal councils via phone. Allow, minimally, 30 days for the tribal councils to consider the proposed action and to provide proposed mitigation measures and equally consider those mitigation measures in any agency decisions." We are concerned that, outside of Allakaket and Alatna, the focus on cultural resources has been too limited. Focusing and relying exclusively on the Alaska Heritage Resources Survey maintained by the State of Alaska (AHRS)19 is problematic for multiple reasons: 1) The AHRS greatly underreports the number of cultural resources within the planning area given the limited areas of formal cultural resources inventory, 2) there are cultural resources that Tribes prefer remain undisclosed in AHRS for cultural and privacy reasons, 3) the AHRS has a significant bias in favor of archeological resources identified in limited geographic area surveys, and 4) the AHRS database is not fully inclusive of all documented cultural resources in published and unpublished ethnographic and historical literature We urge BLM to work with other communities in the planning area to help them establish recognition for their TCPs and other cultural resources currently administered by BLM on public lands. Communities can help BLM identify areas important to them and collaborate on the management of those important cultural resources. 19 DEIS 3-93.	The changes have generally been made as suggested. The text has been clarified to state that Allakaket and Alatna Tribes are seeking an eligibility determination for the TCP, not a formal nomination to the National Register of Historic Places, and text was added to acknowledge that consultation between the agency and tribes is required, regardless of whether it is considered eligible or not. The text "if it is determined to be eligible for listing on the National Register of Historic Places" was deleted and revised to "Apply the following management to all Traditional Cultural Properties: - Consult tribes when considering any permit applications for proposed actions in the traditional cultural property areas, including SRPs. - Send a notification letter and written description of any proposed actions to the tribes and, minimally, discuss the proposed action with the tribal councils via phone. Allow, minimally, 30 days for the tribal councils to consider the proposed action and to provide proposed mitigation measures and equally consider those mitigation measures in any agency decisions.". The BLM will continue to work with other tribes to document TCPs or other places of cultural significance; this proactive work is identified in the alternatives comparison table 2-17. These types of resources may also be designated for "Traditional Use" (see Table 2-17), which is a category for cultural resources identified by a social or cultural group as important in maintaining their cultural identity, heritage, or well-being. Resources with this designation would be managed in a way that recognize the importance ascribed to them and seek to accommodate continued traditional use.

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Costello	Naomi	Evansville Tribal Council	None	107	22	Cultural Resources	208.0900.00	While BLM recognizes TCPs elsewhere, there is nothing in the SOPs to protect these significant cultural resources. It is critical that BLM work with tribal governments to identify TCPs and prohibit surface occupancy on TCPs. Without some measure of protection such as no surface occupancy, TCPs may be irreparably harmed.	While there are no separate SOPs are specifically called out for TCPs (or other cultural resources), SOPs such as the addition of Standard Lease Terms (**Appendix F**, Section F.3.3) or those intended to protect visual resources (**Appendix F**, Section F.2.7) would offer protection to cultural resources as well. Measures intended to protect specific cultural resources are typically identified at the project level. The RMP/EIS analyzes the potential impacts as a result of large-scale allocations or other programmatic land use planning decisions, as well as identification of measures to mitigate potential impacts. Continued cultural resource compliance efforts will be conducted when subsequent undertakings such as APDs are proposed including identification efforts specific to TCPs and traditional cultural landscapes, in accordance with BLM policies, and existing programmatic agreements regarding cultural resource compliance and land transfers.
O'Reilly-Doyle	Kathleen	No organization name	None	112	2	Cultural Resources	208.0900.00	1.5.4 of the Executive Summary states that the draft RMP/EIS is being reviewed by the State Historic Preservation Officer but comments will not be added until the next stage of the planning. Information on Cultural and Archeological sites could significantly influence the future actions described in this plan, including mining, subsistence, hunting and recreation. It seems premature to delineate changes in management, opening of lands to mineral entry and lifting PLO's, before this information is incorporated into this planning effort.	The RMP/EIS is an administrative action to identify potential indirect impacts and adverse effect. No comments were received from the SHPO during the public comment period. Consultation will continue with the SHPO in accordance with federal cultural resource laws for any activities on federal lands that result from the implementation of the RMP.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	21	Cultural Resources	208.0900.00	Inadequacies in the protections the Bureau developed for cultural and subsistence resources arise in part from its flawed analysis of potential impacts. NEPA fosters informed decision-making by requiring federal agencies to take a "hard look" at the environmental impacts of a proposed action.81 An EIS must "provide full and fair discussion of significant environmental impacts" and "inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts."82 NEPA requires high-quality information and accurate scientific analysis.83 When "evaluating reasonably foreseeable significant adverse effects," agencies have an obligation to clearly identify missing and unavailable information.84 If there is incomplete information "relevant to reasonably foreseeable significant adverse impacts" and that information "is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant" the agency must obtain the information and include it in the EIS.85 81 W. Watersheds Project v. Kraayenbrink, 632 F.3d 472, 486 (9th Cir. 2011). 82 40 C.F.R. § 1502.1. Like the Draft RMP and EIS, all references to the Council on Environmental Quality's NEPA regulations refer to the regulations in effect prior to September 14, 2020. RMP and EIS at 1-8. 83 40 C.F.R. § 1500.1(b). 84 Id. § 1502.22. 85 Id. § 1502.22(a).	The EIS analyzes the potential impacts as a result of large-scale allocations or other programmatic land use planning decisions, as well as identification of measures to mitigate potential impacts. While missing and unavailable information regarding the nature and location of cultural resources in the planning area is clearly identified in the RMP/EIS and related AMS, the analysis contained within uses the best available information. Continued cultural resource compliance efforts will be conducted when subsequent undertakings such as APDs are proposed including identification efforts specific to TCPs and traditional cultural landscapes, in accordance with BLM policies, and existing programmatic agreements regarding cultural resource compliance and land transfers.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	22	Cultural Resources	208.0900.00	In the Draft RMP, the Bureau recognized the limited information available about cultural resources, particularly "ethnographic cultural resources, such as ethnographic landscapes, [Traditional Cultural Properties], indigenous sacred sites, place names, or intangible resources."86 However, the Bureau did not obtain the data necessary to adequately consider potential impacts to these resources. Instead, the agency relied primarily on data from the Alaska Heritage Resources Survey.87 These data substantially underreport the number of cultural resources within the planning area and demonstrate a significant bias in favor of archeological resources. As a result of the agency's reliance on these data, the Bureau focused on discrete sites and failed to adequately consider intangible and landscape-level cultural resources, including Traditional Cultural Landscapes.88 The Draft RMP and EIS recognizes that there is one known Traditional Cultural Property within the planning area and "assumes [Traditional Cultural Properties] and other types of cultural resources exist across the planning area, even if limited quantifiable information is available."89 But this statement, along with broad consideration of "ethnographic cultural resources,"90 is insufficient. 86 Draft RMP and EIS at 3-95. 87 Id. at 3-93. 88 Id. 89 Id. at 3-95. 90 Id.	The best available information was used in the analysis. The BLM acknowledges the limits of that information. The baseline cultural resource identification effort is appropriate and common practice for the size of the planning area. Per ACHP guidance, the BLM also using a phased approach for cultural resource identification and consideration of potential effects in implementation phase undertakings such as leasing and APDs. The RMP/EIS makes no site-specific leasing decisions. In the limited new areas proposed for leasing and APDs, there would be additional phases of cultural resource identification, evaluation of adverse effects, and resolution (if appropriate)
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	23	Cultural Resources	208.0900.00	The Bureau's flawed analysis of impacts to cultural resources is particularly troubling in light of the significant potential for adverse impacts to these resources. For example, the Bureau found that "[a]ny development in the planning area could adversely affect belief systems and religious practices, traditional use areas, and sacred sites, even if such developments are far removed from specific cultural resource locations."91 The Bureau further found that impacts to cultural resources "would be adverse, regional in scale, and long term."92 The Bureau's own guidance instructs land planners that the goal during the RMP planning process is to "[i]dentify, preserve, and protect significant cultural resources and ensure that they are available for appropriate uses by present and future generations,"93 but the Draft RMP fails to do so. 91 Id. 92 Id. 93 Land Use Planning Handbook, Appendix C at 8.	The RMP/EIS is an administrative action without the potential to directly affect historic properties. The baseline cultural resource identification effort is appropriate and common practice for the size of the planning area. Per ACHP guidance, the BLM is also using a phased approach for cultural resource identification and consideration of potential effects in implementation phase undertakings such as leasing and APDs. The RMP/EIS makes no site-specific leasing decisions. In the limited new areas proposed for leasing and APDs, there would be additional phases of cultural resource identification, evaluation of adverse effects, and resolution (if appropriate).
Magee	Susan	State Of Alaska	None	165	53	Cultural Resources	208.0900.00	Traditional Cultural Properties (TCPs) – Issues: o The draft RMP/EIS provides conflicting information for the management implementation for TCPs making BLMs management intentions unknown. o Pending TCP designations are subject to Traditional Council consultation for determining issuance of Special Recreation Permits (SRPs). o The draft RMP/EIS selectively addresses SRPs as a targeted item for consultation in portions of the plan. * Resolution: o Rectify conflicting management direction in the proposed final RMP/EIS. o Remove interim management for pending TCP designations relying on Traditional Council consultation for BLM determinations of SRP issuance. o Provide a management regime that holistically addresses designated TCP concerns throughout the plan. * Discussion: We fully concur with BLM's recognition of the value to residents in the Central Yukon planning area of culturally important areas. Our concern regarding the TCP component of the plan is that there are no qualifications described for how it is to be applied discriminately across all alternatives, as shown in Table 2-6 "Recreation and Visitor Services." Proposed TCP designations would need to be specific, discrete, and well-defined so as to not create a private local interest by broadly restricting general public use. In addition to potentially limiting public access broadly, we are concerned that, as described in Table 2-6 and Table 2-17 "Cultural Resources," BLM is effectively, if not in fact, assuming authority for fish and wildlife allocation as the result of targeted use of their recreation management special recreation permit (SRP) authority. As recognized by BLM in the response to comments on the BSWI RMP (see BSWI proposed final RMP, Appendix H, page 10) and consistent with DOI regulations at 43 CFR 24, BLM does not have this authority. In Tables 2-6 and 2-17 BLM states it will "consult" with tribes and or traditional councils on potential SRPs and does not provide further explanation of how consultation will be conducted without potentially circumventing the allocative authorities of the Alaska Boards of Game and Fish and the FSB. Consulting with tribes is certainly appropriate on management issues related to designated TCPs; however, singling out SRPs gives us cause for concern. The draft plan also contains the following conflicting information: o Recreation and Visitor Service Table 2-6 (p 2-28) states: "Consult with subject tribes on potential SRPs in designated (emphasis added) traditional cultural property locations." o Chapter 3. Affected Environment and Environmental Consequences (Cultural Resources) (p 3-97) states: "Management decisions for the Alatna and Allakaket TCP areas would be the same across all action alternatives, with the goal of ensuring access to, and use of, the TCP areas by tribal members. Pending formal designation (emphasis added) of 52,000 acres of the Allakaket and Alatna TCPs by the State Historic Preservation Officer, the BLM would consult with the Allakaket and Alatna Traditional Councils when considering any permit applications, (including SRPs (special recreation permits) for proposed actions in the TCP areas (emphasis added)." The proposed final RMP/EIS should rectify this conflicting information by removing interim management that requires Traditional Council consultation for pending TCP designations that specifically target SRPs, and instead apply this direction only to designated TCPs for concerns in general. The draft RMP/EIS does not clarify how BLM, without effectively delegating their federal authorities to a non-federal entity, will rely on concurrence from tribes and/or village councils to justify and effectively determine what SRPs are approved or disapproved. BLM's existing permitting guidance requires BLM to prevent favoritism, improper influence, and unfair or unjust treatment of certain individuals or groups when implementing management direction. BLM's cultural resource guidance also stresses the importance of using reasonableness and feasibility to maintain proportion and balance when evaluating uses for National Register listed and eligible properties affected by proposed land uses (BLM Manual 8140). We request BLM discuss this with ADF&G in advance of the proposed final RMP and that the proposed final RMP provide	The BLM has a responsibility to meaningfully consult with Native Alaskan tribes. Consultation with tribes regarding TCPS and SRP approvals is not meant to convey or otherwise delegate federal authorities to non-federal entities. The text has been clarified to state that Allakaket and Alatna Tribes are seeking an eligibility determination for the TCP, not a formal nomination to the National Register of Historic Places, and text was added to acknowledge that consultation regarding TCPs between the agency and tribes is required, regardless of whether they is considered eligible for nomination to the National Register of Historic Places or not. The text in Table 2-17 "if it is determined to be eligible for listing on the National Register of Historic Places" was deleted and revised to "Apply the following management to all Traditional Cultural Properties: - Consult tribes when considering any permit applications for proposed actions in the traditional cultural property areas, including SRPs. - Send a notification letter and written description of any proposed actions to the tribes and, minimally, discuss the proposed action with the tribal councils via phone. Allow, minimally, 30 days for the tribal councils to consider the proposed action and to provide proposed mitigation measures and equally consider those mitigation measures in any agency decisions." The BLM will continue to work with other tribes to document TCPs or other places of cultural significance; this proactive work is identified in the alternatives comparison Table 2-17. These types of resources may also be designated for "Traditional Use" (see Table 2-17), which is a category for cultural resources identified by a social or cultural group as important in maintaining their cultural identity, heritage, or well-being. Resources with this designation would be managed in a way that recognize the importance ascribed to them and seek to accommodate continued traditional use.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Gemill	Margorie	Native Village of Venetie Tribal Government	None	184	3	Cultural Resources	208.0900.00	In the Draft RMP and EIS, the BLM addressed the potential adverse impacts of development on cultural and subsistence resources throughout the planning area, stating that "[a]ny development in the planning area could adversely affect belief systems and religious practices, traditional use areas, and sacred sites."13 Further, the BLM stated that "impacts on wildlife that affect access and availability of food resources, such as caribou, fish, moose, or other wildlife resources important to the subsistence way of life, would be considered effects on cultural resources. These impacts would be adverse, regional in scale, and long term."14 Despite these conclusions, the BLM's preferred alternative fails to provide adequate protections for cultural and subsistence resources. For example, under the BLM's preferred alternative "there would be 13,083,000 acres (100 percent of the decision area) open to locatable mineral development," as compared to current management, under which 52 percent of the decision area is open to locatable mineral development	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. based on the analysis the Proposed Plan, Alternative E, was developed from the range of alternatives identified in the Draft RMP/EIS with allocations of acreage open to locatable mineral entry ranging from 100 percent to 52 percent of the decision area. Further, a phased approach to cultural resource compliance will be conducted when subsequent undertakings are defined. Land allocated as open to locatable mineral development will be subject to subsequent compliance actions including identification of the potential impacts on belief systems, religious and subsistence practices.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	11	Cultural Resources	208.0900.00	We are concerned that, outside of Allakaket and Alatna, the focus on cultural resources has been too limited. Focusing and relying exclusively on the Alaska Heritage Resources Survey maintained by the State of Alaska (AHRS)19 is problematic for multiple reasons: 1) The AHRS greatly underreports the number of cultural resources within the planning area given the limited areas of formal cultural resources inventory, 2) there are cultural resources that Tribes prefer remain undisclosed in AHRS for cultural and privacy reasons, 3) the AHRS has a significant bias in favor of archeological resources identified in limited geographic area surveys, and 4) the AHRS database is not fully inclusive of all documented cultural resources in published and unpublished ethnographic and historical literature. We urge BLM to work with other communities in the planning area to help them establish recognition for their TCPs and other cultural resources currently administered by BLM on public lands. Communities can help BLM identify areas important to them and collaborate on the management of those important cultural resources.	The best available information was used in the analysis. The BLM acknowledges the limits of that information. The baseline cultural resource identification effort is appropriate and common practice for the size of the planning area. Per ACHP guidance, the BLM also using a phased approach for cultural resource identification and consideration of potential effects in implementation phase undertakings such as leasing and APDs. The RMP/EIS makes no site-specific leasing decisions. In the limited new areas proposed for leasing and APDs, there would be additional phases of cultural resource identification, evaluation of adverse effects, and resolution (if appropriate). BLM will continue to work with communities in the planning area to identify and collaborate on their cultural resources.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	12	Cultural Resources	208.0900.00	We greatly appreciate that "BLM has determined that the places [identified by Allakaket and Alatna Tribes as Traditional Cultural Properties] meet the criteria for a TCP and would work with the tribes to continue the nomination process." Allakaket and Alatna are not specifically seeking to nominate these TCPs to the National Register of Historic Places, rather, they seek acknowledgment of eligibility and the consultation to which tribes are entitled through this eligibility, regardless of whether the State Historic Preservation Officer supports and advances the nomination process.17. The language providing direction on consultation should be changed to clarify that consultation is already required, regardless of whether there is any formal nomination.18. This clarification should apply to TCPs for other tribes in addition to Allakaket and Alatna on any decision that may affect cultural resources in their customary and traditional use areas. 17 See 54 U.S.C. § 300308. Historic property ("In this division, the term "historic property" means any prehistoric or historic district, site, building, structure, or object included on, or eligible for inclusion on, the National Register, including artifacts, records, and material remains relating to the district, site, building, structure, or object.") [Emphasis added]; § 306108. Effect of undertaking on historic property ("The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, shall take into account the effect of the undertaking on any historic property. The head of the Federal agency shall afford the Council a reasonable opportunity to comment with regard to the undertaking.") § 302706. Eligibility for inclusion on National Register ("(a) IN GENERAL.-Property of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization may be determined to be eligible for inclusion on the National Register. (b) CONSULTATION.-In carrying out its responsibilities under section 306108 of this title, a Federal agency shall consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to property described in subsection (a)."). 18 Please change DEIS 2-46 as follows: Apply the following management to all Traditional Cultural Properties: * Consult Traditional Councils, when considering any permit applications for proposed actions in the traditional cultural property areas, including SRPs. * Send a notification letter and written description of any proposed actions to the tribes and, minimally, discuss the proposed action with the tribal councils via phone. Allow, minimally, 30 days for the tribal councils to consider the proposed action and to provide proposed mitigation measures and equally consider those mitigation measures in any agency decisions	The changes have generally been made as suggested. The text has been clarified to state that Allakaket and Alatna Tribes are seeking an eligibility determination for the TCP, not a formal nomination to the National Register of Historic Places, and text was added to acknowledge that consultation between the agency and tribes is required, regardless of whether it is considered eligible or not. The text "if it is determined to be eligible for listing on the National Register of Historic Places" was deleted and revised to "Apply the following management to all Traditional Cultural Properties: - Consult tribes when considering any permit applications for proposed actions in the traditional cultural property areas, including SRPs. - Send a notification letter and written description of any proposed actions to the tribes and, minimally, discuss the proposed action with the tribal councils via phone. Allow, minimally, 30 days for the tribal councils to consider the proposed action and to provide proposed mitigation measures and equally consider those mitigation measures in any agency decisions.". The BLM will continue to work with other tribes to document TCPs or other places of cultural significance; this proactive work is identified in the alternatives comparison Table 2-17. These types of resources may also be designated for "Traditional Use" (see Table 2-17), which is a category for cultural resources identified by a social or cultural group as important in maintaining their cultural identity, heritage, or well-being. Resources with this designation would be managed in a way that recognize the importance ascribed to them and seek to accommodate continued traditional use.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	31	Cultural Resources	208.0900.00	While BLM recognizes TCPs elsewhere, there is nothing in the SOPs to protect these significant cultural resources. It is critical that BLM work with tribal governments to identify TCPs and prohibit surface occupancy on TCPs. Without some measure of protection such as no surface occupancy, TCPs may be irreparably harmed.	While there are no separate SOPs are specifically called out for TCPs (or other cultural resources), SOPs such as the addition of Standard Lease Terms (**Appendix F**, Section F.3.3) or those intended to protect visual resources (**Appendix F**, Section F.2.7) would offer protection to cultural resources as well. Measures intended to protect specific cultural resources are typically identified at the project level. The RMP/EIS analyzes the potential impacts as a result of large-scale allocations or other programmatic land use planning decisions, as well as identification of measures to mitigate potential impacts. Continued cultural resource compliance efforts will be conducted when subsequent undertakings such as APDs are proposed including identification efforts specific to TCPs and traditional cultural landscapes, in accordance with BLM policies, and existing programmatic agreements regarding cultural resource compliance and land transfers.
Cole	Jeanie	No organization name	None	32	1	Editorial Comments (grammar and formatting updates)	115.0000.00	Appendix J: -Suggest addition of acreages to these tables for various allocation decisions such as VRM classes, mineral closures, and each specific ACEC. So the reader can more easily compare across alternatives. It would not take much additional space to add this information.	Acreages are reported in Chapter 2, Table 2-1.
Cole	Jeanie	No organization name	None	32	3	Editorial Comments (grammar and formatting updates)	115.0000.00	pg -8, Lake Tod, Alt B. delete second reference to "Pursue FLPMA withdrawal".	We deleted the extra reference to pursuing a FLPMA withdrawal for **Appendix J**, Lake Todatonten Pingos and South Todatonten Summit ACEC, Alternative B. Thank you.
Cole	Jeanie	No organization name	None	32	4	Editorial Comments (grammar and formatting updates)	115.0000.00	pg J-10, Galbraith Lake, Aircraft limitations - refers reader to "Wildlife" and "Travel Management and Transportation" - this is too vague of a reference to be useful. Suggest you add specific section or table numbers here.	We added a note that this text in **Appendix J**, Galbraith Lake ACEC, is to Chapter 2, Wildlife and Travel Management and Transportation.
Cole	Jeanie	No organization name	None	32	5	Editorial Comments (grammar and formatting updates)	115.0000.00	Same comment on VRM Classes. "Recreation" is to vague of a reference.	We added a note that this text in **Appendix J**, Galbraith Lake ACEC, is to Chapter 2, Recreation.
Cole	Jeanie	No organization name	None	32	6	Editorial Comments (grammar and formatting updates)	115.0000.00	Dulbi River ACEC: Is not considered in any action alternative. I assume this is because it did not meet the criteria for an ACEC. Suggest you add this information to the table so the reader knows that you didn't just blow this area off for no reason. Same comment for Nigu-Iteriak.	The portion of the Dulbi River ACEC that satisfies the relevance criteria is encompassed within the nominated Galena Mountain Caribou ACEC Expansion. The rationale is in the ACEC Report on the Application of the Relevance and Importance Criteria.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Cole	Jeanie	No organization name	None	32	7	Editorial Comments (grammar and formatting updates)	115.0000.00	Midnight Dome, Nugget, Poss, etc.: add reference to wildlife section that talks about management of Dall Sheep habitat, licks, lambing, etc. under Alts B-D as it provides some similar management for some of these areas, even if they are not proposed as ACECs. Same for Sukakpak/Snowden.	The Nigu-Iteriak ACEC no longer meets the ACEC criteria. The rationale is in the ACEC Report on the Application of the Relevance and Importance Criteria.
Cole	Jeanie	No organization name	None	32	8	Editorial Comments (grammar and formatting updates)	115.0000.00	Kanuti Hot Springs and PLO 399. Does this PLO continue to apply across all Action Alts? If so put reference to PLO table or section where it talks about what the RMP recommends for PLO 399.	In **Appendix J**, Land Management Allocations, the ACEC section, BLM clarified that Kanuti Hot Springs is still withdrawn.
Cole	Jeanie	No organization name	None	32	10	Editorial Comments (grammar and formatting updates)	115.0000.00	Pg. 2-21: Add link to this: Implement provisions in the Alaska Forest Resources and Practices Act [Alaska Statute (AS) 41.17].	The BLM added this URL to all references of the Alaska Forest Resources and Practices Act (AS 41.17): https://casetext.com/statute/alaska-statutes/title-41-public-resources/chapter-17-forest-resources-and-practices
Cole	Jeanie	No organization name	None	32	11	Editorial Comments (grammar and formatting updates)	115.0000.00	more bookmarks and links would be very helpful in navigating the document. Especially links in the Table of Contents.	The RMP meets the criteria for Section 508 compliance, which includes document bookmarks.
Cole	Jeanie	No organization name	None	32	12	Editorial Comments (grammar and formatting updates)	115.0000.00	cross reference all the glossaries (many appendices have separate glossaries) and make sure the main glossary encompasses all terms. Add definition of NSO and controlled surface use.	We added the definitions of no surface occupancy and controlled surface use to **Appendix F**, SOPs and Fluid Mineral Leasing Stipulations. Each glossary does not have the same list of terms because each chapter or appendix does not use the same terms.
Cole	Jeanie	No organization name	None	32	13	Editorial Comments (grammar and formatting updates)	115.0000.00	Some sections in Chapter 3 have a subheading "Comparative Summary Tables" which directs you to the appropriate table or appendix. Some other sections do not have this heading. Suggest be consistent. If none, then so state under the heading.	The suggested change was incorporated, "None" was added to sections that don't have a Comparative Summary Table.
Armstrong	Jay	No organization name	None	36	1	Editorial Comments (grammar and formatting updates)	115.0000.00	I noticed a lot of the -- in Appendix D, on D-1, in Volume II, Part 2, the handbooks and manuals that the depar -- or BLM is using in this to determine the outcome of this, it's all outdated stuff. The newest thing is from 2012, and the same with the plans and other federal agencies and land use plans, the State of Alaska, et cetera. In 2013, the State of Alaska put a halt or land conveyances to the state, and got a hold of the DNR commissioner and wanted to work with the Department of Interior and the BLM on prioritizing land conveyances. And they -- at the time, the area -- I live in Wiseman village, and I used to mine up there, and planning on mining there again in the future. But, at the time, the State of Alaska had identified some of the areas around Wiseman as a highest priority in the state of Alaska for land conveyances. And I didn't see any reference to that in this RMP.	While some BLM handbooks and manuals may be decades old, those referenced in this RMP/EIS are the most current, up-to-date versions of these materials available. Revision of these materials is outside the scope of this RMP effort, though updating aged land use plans is key to the purpose and need of the current planning effort (see Chapter 1 of the RMP/EIS).
O'Reilly-Doyle	Kathleen	No organization name	None	112	5	Editorial Comments (grammar and formatting updates)	115.0000.00	In your next draft I would encourage you to limit the use of abbreviations and acronyms in Tables and Charts, unless they are spelled out in full for reference somewhere else in that chart or table. For instance, in Table 2-1, it refers to SRMAs, ERMAs, BCA, LWCs. There is plenty of room in the title boxes to spell these out in full. Later in the same document VRM is fully spelled out as Visual Resource Management, which is the appropriate way to provide an abbreviation. This lack of consistency makes it challenging for the reader.	Acronyms and abbreviations are listed in the Proposed Plan/Finall EIS. Each acronym or abbreviation is spelled out on its first use in the document.
Cole	Jeanie	Alaskans for Wildlife	None	142	12	Editorial Comments (grammar and formatting updates)	115.0000.00	The tables in appendix P are confusing and in places appear to contradict what is in the alternative summary tables in Chapter 2. For example Table 2-4, Dall sheep, Alternative C1 recommends withdrawal of 4,600 acres from locatable mineral entry. Table P-3 states that 0 acres of DSHA are recommended for withdrawal from mineral entry under Alternative C1, contradicting Table 2-4. Also Table 2-4 states that DSHA would be no surface occupancy for fluid mineral leasing, but Table P-3 indicates that only 60 percent of the DSHA would be subject to no surface occupancy stipulations. Table P-3 also shows 40% of the DSHA withdrawn from fluid mineral leasing, but apparently 80% is open with either no surface occupancy (60%) or controlled surface use (20%). Some footnotes explaining the acres in these tables would be helpful. For example, what is the difference between "closed to fluid minerals leasing" and "withdrawn from fluid minerals leasing"? What does "Open, State or Native selection, segregated" mean? It would be helpful if Tables P-1, P-2 and P-3 showed acres of Dall sheep habitat and caribou habitat overlapping with connectivity corridors. Also we suggest adding a line showing the acres of State-selected priority 1 lands within the wildlife habitat areas since these lands are expected to be conveyed within 10 years of plan approval. Also consider eliminating Appendix P altogether and moving these tables to Chapter 3 impact analysis. This would be more consistent with other sections of chapter 3 where similar tables are included within analysis of impacts under the heading Comparative Summary Tables.	Thank you for pointing out inconsistencies between the comparative summary tables found in **Appendix P**, Wildlife, and the alternatives described in Chapter 2. The BLM corrected acres as needed. These tables have been updated in the Proposed RMP/Final EIS to better reflect the alternatives and to include Alternative E. It is important to note the **Appendix P** comparative summary tables do not compare acreages, but rather percentages of the overall potential Dall Sheep Critical Areas by different management actions under each alternative. The calculation of these percentages are complex in some cases- for example only 60 percent of the DSHA would be open to fluid mineral leasing and subject to no surface occupancy stipulations under Alternative C1 because although all DSHA would be subject to NSO under Alternative C1, only 60 percent would be open to fluid mineral leasing. During the editorial process this set of tables was deemed too large to include embedded in the Chapter 3 analysis and was separated into an appendix. The tables in this appendix allow for a comparison of the protections and risks to these wildlife areas under each alternative.
Magee	Susan	State Of Alaska	None	165	55	Editorial Comments (grammar and formatting updates)	115.0000.00	We reiterate our request from previous cooperator review comments to use the term "general hunting" in lieu of the term "sport hunting" throughout the RMP for consistency with terms used in the state hunting regulations. While ANILCA referred to "sport" hunting as a means to distinguish between subsistence and non-subsistence hunting, the term is no longer used in state hunting regulations and the general term "hunting" is the appropriate term. (see, e.g., see pages 3-102 and 3-208)	BLM acknowledges the difference between hunting, general hunting, and sport hunting in the SOA hunting regulations. BLM retains a subsistence responsibility under ANILCA, and which necessitates distinguishing between sport hunting and subsistence hunting for the purposes of this RMP/EIS.
Crockett	Deantha	Alaska Miners Association	None	199	79	Editorial Comments (grammar and formatting updates)	115.0000.00	Terms such as "ecological degradation" and "quality of recreational experiences" are subjective and not defined in the document, yet are invoked to justify management restrictions.	The BLM added the definitions "degradation" and for "quality of recreational experiences" to the glossary.
Thorne	Rich	No organization name	None	5	1	Energy and Minerals	209.0300.00	Am I correct in my understanding that even in the most restrictive settings (except ACECs), that there is a path to ROW permitting and changing designations as necessary for mineral extraction?	Changes to ROW exclusion areas would require public notice and amendments to the approved RMP.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Costello	Naomi	Evansville Tribal Council	None	107	4	Energy and Minerals	209.0300.00	The decision to open the entire area to mineral entry and over 12 million acres to rights-of-way (ROW) location renders several of BLM's conclusions arbitrary and capricious.6 6 DEIS 2-10. For example, -"Most of the planning area would remain in near-undisturbed condition"7 7 DEIS 3-31, 3-46 This cannot be true if most of the land is open to mineral entry that would established transportation routes, encroachment patterns and user conflicts -BLM recognized that "Locatable mineral extraction, ROWs, and mineral materials disposal would pose the greatest risk for permanent loss of wetlands." 8 8 DEIS M-134. But then goes on to conclude that "Most of the decision area remains remote and inaccessible by road, which remains the most important reason for wetlands remaining intact." 9 9 DEIS M-134. This cannot be true if all of the land is open to mineral entry.	The EIS recognizes that the vast majority of the planning area will not be developed regardless of ROW and mineral entry status during the anticipated life of the land use plan as detailed in the Reasonably Foreseeable Development (RFD) Scenario. The scope of the RMP/EIS is to consider the current and future trends on the landscape within the estimated life of the plan and as such, the lack of current and projected development within the geographic scale is reasonable. The EIS does disclose affects in areas where the RFD does anticipated development.
Costello	Naomi	Evansville Tribal Council	None	107	26	Energy and Minerals	209.0300.00	There is currently no requirement for reclamation or a bond to ensure reclamation. BLM should require a reclamation plan to be approved by an AO prior to any permit for mining or drilling, along with a bond large enough to provide for all expected restoration costs, based on an assessment performed by a third party.	BLM policy on reclamation requirements and bond requirements for reclamation are beyond the scope of this document.
Armstrong	Jay	No organization name	None	109	1	Energy and Minerals	209.0300.00	This RMP/ EIS ignores Congressional and POTUS directives to place Rare Earth and Strategic minerals as the HIGHEST priority on public lands, a CRITICAL need. Yet the BLM ignores this and instead selfishly nominates ACECs in areas that have Rare Earth and Strategic Minerals, the South Fork of the Koyukuk that the USGS identified REEs, and the Nolan creek drainage that also has REEs and Strategic minerals. The nominated ACECs do not meet the criteria of the DOI/ BLM for ACECs. And the SOA gave a great rebuttal regarding the South Fork of the Koyukuk that was not included in this RMP/ EIS. These areas identified by the BLM do not meet the criteria to lock up the area, preventing it from being conveyed to the State.	BLM manages lands based on a multiple use mandate which states that the resources and uses on public land must be utilized in a balanced combination that will best meet the needs of the people. The RMP/EIS makes much of the planning area available for Rare Earth and strategic mineral mining, while at the same time protecting other resource values.
Gestring	Bonnie	Earthworks	None	146	39	Energy and Minerals	209.0300.00	The DEIS fails to take a hard look at the impacts of hazardous materials releases, and incorporate additional protections. According to the DEIS, "the SOPs in Appendix F for hazardous materials would provide containment for hazardous materials and spill clean-up protocols." (p. 3-40). Yet, the track record of hazardous spills in Alaska demonstrates that these measures are inadequate to prevent degradation of important resources. Lubetkin (2020) demonstrates that current permitting process often significantly underestimate the number of spills from mining and oil and gas operations.43 43 Susan C. Lubetkin, "The tip of the iceberg: Three case studies of sill risk assessments used in environmental impact statements," Marine Pollution Bulletin 152 (2020) 110613. A 2020 report on the track record of hardrock mines documents chronic spills at major operating hardrock mines in Alaska.44 44 Earthworks et. al., "Alaska Metal Mines, "The Track Record of Impacts to land and water from the failure to capture and treat mine pollution." March 2020. https://www.earthworks.org/cms/assets/uploads/2020/03/AK-MINE-POLLUTION-REPORT-2020.pdf For example, transportation spills and fugitive dust from the Red Dog Mine have resulted in metals pollution on federal public lands in Cape Krusenstern National Monument. The 52-mile haul road has been placed in the state's contaminated site program. Despite employing a range of new mitigation measures, transportation accidents continue to occur, with ongoing impacts. The Red Dog Mine has been on the list of top ten spills in Alaska for the last four years (2015-2018), according to the State of Alaska. Recent truck accidents along the haul road through Cape Krusenstern National Monument include spills of 5,300 pounds of zinc concentrate in 2019, 140,000 pounds of zinc concentrate in 2016 and 18,125 gallons of zinc concentrate in 2015. According to a 2005 ADEC report that provided a state-wide summary of spills over a ten-year period from 1995-2005, the Red Dog mine "was responsible for 1,190 of the 1,483 spills and 901,843 of the 1,105,220 gallons spilled in the Northwest Arctic subarea for the reporting period. The range of risks and adverse effects to fish and aquatic life from spills of diesel, mine concentrate, tailings and other hazardous materials, and the difficulties of remediating these effects, are described in the Bristol Bay Watershed Assessment.45 The range of alternatives, including Alternative B, should incorporate significantly more ROW restriction and avoidance areas to protect aquatic resources, particularly important spawning habitat. 45 https://www.epa.gov/sites/production/files/2015-05/documents/bristol_bay_assessment_final_2014_vol1.pdf	The RMP/EIS is a programmatic level document, spill risk is associated with details of specific projects and would be analyzed in the project level NEPA analysis for proposed projects in the planning area.
Hall	Marleanna	Resource Development Council	None	181	1	Energy and Minerals	209.0300.00	Alaska contains known and likely unknown deposits of Rare Earth Elements (REEs). Many of these REEs are imported to the United States, often from countries with lesser environmental regulations. According to the Mineral Commodity Summaries 2021 report by the U.S. Geological Survey, the U.S. depended on imports of 50-100% of needs for 46 minerals in 2020, some of which are found in Alaska. Keeping areas open to mining in Alaska not only provides the opportunity for future responsible resource development, it also may improve national security. Therefore, areas like the Central Yukon that have not been fully inventoried, should be open to mineral exploration and development, and should be mapped by the U.S. Bureau of Mines, and listed as favorable for mineral discoveries. RDC asserts that the potential for mining in the area should be fully considered and designated as such in the RMP.	BLM manages lands based on a multiple use mandate which states that the resources and uses on public land must be utilized in a balanced combination that will best meet the needs of the people. The RMP/EIS makes much of the planning area available for Rare Earth and strategic mineral mining, while at the same time protecting other resource values. The locations that the U.S. Bureau of Mines decides to map are beyond the scope of this document, but mapping would not be prohibited in areas closed to development.
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	13	Energy and Minerals	209.0300.00	SOP MIN-LMM-5 This concerns closure of mining operations and the BLM requirement to remove all improvements, materials and substances including scrap steel, derelict mining machinery and parts. This should be limited to what the operator brought in. Many mining claim areas have had historic mining on them and there is a lot of historic "iron" left on these sites. This whole issue of closure should be addressed in the individual mining operations plan.	BLM has an interest in ensuring the complete reclamation of end-of-life mining sites, historic equipment included.
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	15	Energy and Minerals	209.0300.00	SOP HAZMAT-5 states that storage of petroleum, oil, and lubricants equal to or greater than 55 gallons at any site will require secondary containment. This subject is already regulated by the EPA and ADEC agencies and therefore should not be in the RMP.	BLM has reviewed the SOPs and made revisions where appropriate. Some duplicative SOPs are maintained in the document in order to ensure the integrity of analysis should regulations change.
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	16	Energy and Minerals	209.0300.00	SOP HAZMAT 6847 concerns requiring a Spill Prevention, Control, and Countermeasure Plan (SPCC Plan). This is already required by ADEC and therefore is duplicative and should not be in the RMP.	BLM has reviewed the SOPs and made revisions where appropriate. Some duplicative SOPs are maintained in the document in order to ensure the integrity of analysis should regulations change.
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	17	Energy and Minerals	209.0300.00	SOP HAZMAT-10 requires that no fueling operation will be allowed within a riparian zone or within 100 feet of a water body. It is not uncommon to have pumps located within this area to facilitate water control and those pumps need to be refueled. This stipulation should not be in the RMP.	SOP HAZMAT-10 allows exceptions for the fueling of watercraft, water pumps, and aircraft within the riparian zone or within 100 feet of a water body.
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	18	Energy and Minerals	209.0300.00	SOP HAZMAT-11 requires that a hazardous materials emergency contingency plan will be prepared and implemented before transportation, storage, or use of fuel or hazardous substances. This is duplicative if you have a SPCC Plan and should be deleted.	BLM has reviewed the SOPs and made revisions where appropriate. Some duplicative SOPs are maintained in the document in order to ensure the integrity of analysis should regulations change.

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Crockett	Deantha	Alaska Miners Association	None	199	2	Energy and Minerals	209.0300.00	A particular concern is the plan fails to address the national priority for developing domestic sources for Rare Earth Elements (REEs) and other critical and strategic minerals. The plan does reference the large body of studies that have been developed over the past many decades for these minerals. The planning process did not, however, utilize the State Division of Geologic & Geophysical Surveys or the Federal U.S. Geological Survey which have both studied these minerals and have the primary expertise for understanding the opportunity for developing these in the planning area.	BLM manages lands based on a multiple use mandate which states that the resources and uses on public land must be utilized in a balanced combination that will best meet the needs of the people. The RMP/EIS makes much of the planning area available for Rare Earth and strategic mineral mining, while at the same time protecting other resource values. The document has been edited to discuss the coordination that happened between BLM, USGS and AKDGGS during the planning process.
Crockett	Deantha	Alaska Miners Association	None	199	25	Energy and Minerals	209.0300.00	Rare Earth and other Critical & Strategic Minerals Potential. The planning area includes some of the highest potential lands in Alaska for several critical and strategic elements, including tin (Sn), tungsten(W), tantalum(Ta), niobium(Nb), germanium(Ge), zirconium(Zr), gallium(Ga), and Rare Earth Elements (REEs). Each of these are essential for industry and defense applications. Many of these mineral commodities the U.S. currently imports from China, leaving them vulnerable to supply chain disruptions. The U.S. policy as stated in the recent Executive Order on America's Supply Chains dated February 24, 2021, is to have "…resilient, diverse, and secure supply chains…and facilitating greater domestic production…" This RMP can and must focus on this goal for obtaining and domestically producing REEs and the other critical and strategic minerals to comply with this policy.	BLM manages lands based on a multiple use mandate which states that the resources and uses on public land must be utilized in a balanced combination that will best meet the needs of the people. The RMP/EIS makes much of the planning area available for Rare Earth and strategic mineral mining, while at the same time protecting other resource values.
Crockett	Deantha	Alaska Miners Association	None	199	26	Energy and Minerals	209.0300.00	Because much of this mineralized area has been closed to mineral entry by various PLOs for over 50 years (in many areas since 1969) and its remoteness, only a few government agency investigations have been done in the RMP area and further study is necessary. Historic sampling in the RMP area has been limited primarily to ridge tops and traverses along the major rivers. Blocks of coal have been easily found and their analyses has included recoverable amounts of germanium, tungsten, and other metals. There are extensive alluvial heavy mineral deposits containing minable grades of placer tin, tungsten, REE, zirconium, niobium, and tantalum on many of the streams and in adjacent benches. The RMP rarely mentions mineral opportunities and is silent regarding critical and strategic minerals.	BLM reviewed the mineral resources section and discussion of critical and strategic minerals; **Appendix N** contains a detailed discussion of REEs and other minerals in the planning area.
Crockett	Deantha	Alaska Miners Association	None	199	27	Energy and Minerals	209.0300.00	Keep BLM lands open to mineral materials disposal. Keep BLM lands open to mineral materials disposal as is currently allowed on almost 13 million acres and proposed to remain open in Alternative D. Material sites are necessary for roads, airstrips, pipelines and other developments, including community needs. Specific locations are very project specific. It is important that the planning area remain open to mineral materials disposal.	BLM is required to analyze a range of alternatives and examine the impacts of the entire range on a variety of resources, including wildlife, air and water quality, and wilderness characteristics.
Crockett	Deantha	Alaska Miners Association	None	199	46	Energy and Minerals	209.0300.00	Section 3.3.3 (Energy and Minerals) of the text states "Gold prices plateau, copper and rare earth elements are becoming more important economically". This sentence provides no documentation or evidence for price forecasts. It also seems to contradict the immediately following sentence "The forecasted demand for locatable minerals is expected to remain largely the same as current levels." This conclusion is referenced only to a 2016 BLM "analysis of management situation", and ignores current claim activity and the last 5 years of infrastructure development and strategic minerals emphasis at the Federal level and referred to in Appendix N.The discussion of metal prices here and in Appendix N lacks an understanding of metals markets. Prices fluctuate based on numerous factors, none of which are mentioned. Prices for many metals today including copper, gold, silver, and most REEs are the highest they have been in many years. Major factors for these price increases include increasing demand for electric vehicles, electrical transmission to accommodate increased electrical usage, and adverse actions by China, our primary source of many REEs. Added to these is the fact that current mines are being depleted faster than new deposits are being developed. All of these factors will continue and become even more significant in the future.	Section 3.3.3 was edited to reflect the unpredictability of demand in metals markets and note the potential for increased demand due to renewables development.
Crockett	Deantha	Alaska Miners Association	None	199	47	Energy and Minerals	209.0300.00	"high, medium, low, none" categories of "mineral potential" are shown on Maps 2.67, 2.68, 2.69 and 2.70. We see no explanation of these categories in the text, no bibliographic reference for them, and no indication of what elements / metals / minerals they include. Also, speaking geologically, the category "NONE" should not be used here since it is not possible to know for certain that there is no potential for any minerals. The 6 maps of critical mineral potential produced by the USGS specifically for the CYMP area, are not even included in the 75 maps appended to the RMP, and these data are only referred to Appendix N.	BLM reviewed the mineral potential categories, corrected issues, and expanded the discussion. BLM included the six USGS critical mineral maps by reference following standard practice for reference sources of information.
Crockett	Deantha	Alaska Miners Association	None	199	49	Energy and Minerals	209.0300.00	The draft plan needs to specifically identify areas with high potential for critical and strategic minerals, including REEs and make these lands available for either state conveyance or open to mineral exploration and entry. AMA is concerned that both the plan alternatives and information in the Affected Environment Section fail to adequately consider that the planning area includes some of the highest potential lands in Alaska for several critical and strategic minerals, including some REEs. These minerals include tin, tungsten, tantalum, niobium, germanium, zirconium, and gallium. Each of these are essential for industry and defense applications. Many of these minerals we currently import from China and other countries. The known belt of critical minerals extends from Ruby on the Yukon River thence 100 miles northeast, the north flank of the Ray Mountains. It underlies the Ray River valley crossing the Dalton Hwy north of the Yukon River bridge, extending east to include Dall River and Coal Creek. See attached map "Metal Source Provinces, Tin, REE, Tungsten". This area has the highest potential for several REEs of anywhere in Interior Alaska. The CYRMP proposes added restrictions for this area that would make the area unavailable for developing the critical and strategic minerals listed above. One of the minerals that occurs in the area is germanium (Ge). Ge is currently produced almost exclusively in China and minor sources in Russia. Except for minor traces from a few copper deposits, the U.S. buys all this metal from China. There are extensive alluvial heavy mineral deposits containing minable grades of placer Sn-W-REEZr-Nb-and Ta on many of the streams and in adjacent benches. The RMP rarely mentions mineral opportunities and is nearly silent regarding critical and strategic minerals.	BLM manages lands based on the multiple use mandate which states that the resources and uses on public land must be utilized in a balanced combination that will best meet the needs of the people. The RMP/EIS proposes to make much of the planning area available for metals and minerals mining.
Crockett	Deantha	Alaska Miners Association	None	199	80	Energy and Minerals	209.0300.00	Minerals. Page 1 of Appendix G emphasizes how the BLM is required to use "best available science" in all management and adapt management policies when additional information is made available. "BLM policy IM 2014-125 directs BLM to consider "relevant data and information from…. other landscape assessments during land use planning and project-level decision making". BLM's own words here support AMA's strong recommendation to redo the entire minerals section using the results from the USGS 2015 landscape-level analysis of critical minerals specifically within the CYMP area. https://pubs.er.usgs.gov/publication/ofr20151021	The BLM used this USGS reference in development of the Reasonable Foreseeable Development Scenario (**Appendix N**), and has integrated relevant information into Section 3.3.3 (Energy and Minerals) of the RMP/EIS as appropriate.
Crockett	Deantha	Alaska Miners Association	None	199	89	Energy and Minerals	209.0300.00	BLM should clearly recognize that the RMP itself will not immediately open the area to widespread development and that individual mineral projects would undergo a high level of scrutiny under project specific NEPA and are typically subject to extensive State review and permitting requirements.	The conclusion of Section 3.3.3 (Energy and Minerals) states "Individual proposed mineral development projects would undergo a project-specific NEPA review, as well as state review and permitting, to further examine possible impacts from development."
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	35	Energy and Minerals	209.0300.00	There is currently no requirement for reclamation or a bond to ensure reclamation. BLM should require a reclamation plan to be approved by an AO prior to any permit for mining or drilling, along with a bond large enough to provide for all expected restoration costs, based on an assessment performed by a third party.	Decisions regarding BLM policy on reclamation requirements and bond requirements for reclamation are outside of the scope of this document.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	39	Energy and Minerals	209.0300.00	We urge the BLM to require these SOPs apply to all notice-level mining operations of less than five acres.	BLM will review and require modifications to notices as necessary to prevent unnecessary and undue degradation from notice-level mining operations as required by law.

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Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	22	Energy and Minerals	209.0300.00	We appreciated the opportunity to be involved at the start of the BLM's Central Yukon Resource Management Plan (CYRMP) planning process and were pleased to see BLM incorporate Canadian BEACONs conservation matrix model for landscape scale conservation planning early on, which included analyzing the effects of including different iterations of the ecological benchmark assemblages across alternatives. While we understand the planning process is iterative in nature, to allow for adjustments to respond to new issues, we feel that the initial focus of careful land use planning, using the BEACONs approach, to what we have now in the DEIS, an emphasis on surface disturbing resource use allocations over much of the planning area (please see table below), especially in the preferred Alternative C2, where 91 to 93% of the planning area is open to these types of activities, activities that are likely to have adverse effects on Refuge resources downstream or adjacent to the planning area. The results of our coordination are not reflected in BLM's DEIS preferred Alternative C2, which recommends 30 ACECs/RNAs not be designated, the revocation of PLO 5150 and other PLO's and lifts mineral withdrawals in watersheds upstream of the Yukon Flats National Wildlife Refuge and 6 other Refuges Surface disturbing resource use allocations percentages are based on the percent land allocated to a resource use in the 13,302,000 acre CYRMP decision planning area. See table in comment.	Thank you for your comment, BLM considers a variety of management alternatives to balance resource use and protection, as required by NEPA.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	30	Energy and Minerals	209.0300.00	To a large degree impacts from locatable mineral mining are due to the non-discretionary nature of the activity. As recognized in the analysis for aquatic resources, some SOPs or BMPs could be applied to help mitigate impacts and loss to aquatic resources as a result of mining, however, as long as the proposed mining action addresses the regulation found under 43 CFR 3809, the action would not result in "Unnecessary or undue degradation" and proposed mining could proceed. Given the perceived lack of management discretion the BLM has in regard to the management of mining (locatable minerals), perhaps the only avenue for the agency to protect R&I values is to maintain or modify existing or propose new mineral withdrawals, "Withdrawal of lands from locatable mineral entry likely provides the single most meaningful protection for fish and aquatic species and their habitats (page 3-66, Fish and Aquatic Species).	BLM had included nominating areas for withdrawal from locatable mineral entry in a number of ACECS in alternative B, analyzing that management action as it relates to critical habitat.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	41	Energy and Minerals	209.0300.00	BLM's proposal to open most if not all the lands within the decision area to locatable mineral entry seems arbitrary especially given the fact that BLM acknowledges that there is no mineral potential on 10.6 million acres (Appendix N, Section N.8). The allocation assignments within the draft Plan fail to create appropriate allocations in regard to the protection of floodplains and wetlands.	Under the Mining Law of 1872, as amended, the BLM has limited jurisdiction to close or limit locatable mineral entry. Areas with no mineral potential are not likely to be disturbed regardless of allocation.
Cole	Jeanie	Alaskans for Wildlife	None	142	13	Energy and Minerals	115.0000.00	Section F2, second paragraph: Is this meant to be an exhaustive list of BLM authorizations that the SOPs would apply to? If so consider adding mineral material sales and non-energy mineral leasing. SOP Wild-12 states that linear rights-of-way and special use authorizations would be located or minimized to reduce disturbance to "important wildlife habitat". We support this idea but wonder how "important wildlife habitat" is defined. Also we suggest this SOP be revised to add "and connectivity corridors". SOP LANDSCAPE-1: Consider adding language about maintaining some minimum percentage of each connectivity corridor similar to language in SOP BENCHMARK-1. Priority Species Consider adding an apex predator such as wolf or bear to the priority species list. Predators play a key role in stability and health of ecosystems.	SOPs would apply to mineral materials sales and non-energy mineral leasing, although no development of nonenergy solid leasables is anticipated. As the first paragraph states, SOPs apply to all actions on public land, whether the BLM implements them or if BLM authorizes them and they are implemented by another individual, organization, or agency. Section F.2.9 discusses SOPs specific to mineral materials. The section has been updated to make the first and second paragraphs of Section F2 consistent. BLM considered comments on SOPs and priority species in its review of SOPs and adaptive management strategies.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	45	Energy and Minerals	115.0000.00	The mixed messages regarding SOPs (are they guidelines or requirements), the ambiguous language, and the uncertainty of whether or not applicable SOPs are required for non-discretionary actions like mining, lead us to believe that the impact analysis was conducted under the assumption that SOPs would be required. Please explain under each alternative, and for each of the resource impact analysis, did the impact analysis assume the SOP would be applied or not? Until we have a better understanding of this, we are to assume that the impacts described in this DEIS likely underestimated the totality of the impact to resources.	BLM clarified and added the new SOPs between to the Proposed RMP/Final EIS.
King	Rachael	No organization name	None	56	1	Environmental Justice	212.0100.00	I am writing to enquire about the decision to not include environmental justice in the comparison of alternatives for this resource management plan. In chapter 3, under social and economic impacts, environmental justice is addressed and found to be affected by the proposed activities. Specifically, alternatives C1 and D were found to have disproportionate, negative impacts on environmental justice communities. Why, then, is environmental justice not included in the comparison of alternatives?	The BLM followed the BLM's Handbook 1601, Land Use Planning, section B. Incorporating Environmental Justice Efforts in the RMP/EIS Process. Environmental justice is included in **Appendix M**, Approach to the Environmental Analysis, including Table M.8 Summary of Environmental Consequences.
King	Rachael	No organization name	None	56	2	Environmental Justice	212.0100.00	According to this DEIS, 22 of the 30 communities included in the planning area are considered environmental justice communities on the basis of minority and/or poverty status. Listed impacts to these communities under the proposed alternatives focus on restrictions to subsistence hunting, but other impacts may occur. For example, hunting does not appear to include fishing in these descriptions, which may be negatively impacted by contaminants entering waterways that support subsistence anglers. Because most of the planned development in these environmental justice communities focuses on mineral exploitation, I will provide the comparison of mineral mining in Nova Scotia. In Nova Scotia, the Freshwater Working Group of the Historic Gold Mines Committee found that brook trout, smallmouth bass, white perch, and yellow perch associated with mine tailings had greater than 30% exceedances above the Canadian human health guideline for consumption of mercury (LeBlanc & Halfyard, 2010). Additionally, white suckers and yellow perch associated with mine tailings exceeded the Canadian human health guideline for arsenic consumption (LeBlanc & Halfyard, 2010). According to this planning document, gold mining is a proposed form of mineral exploitation in the planning area. Such mineral exploitation could contaminate local waterways with mercury and arsenic, leading to contaminated fish tissues. If these contaminated fish tissues are consumed by subsistence anglers in environmental justice communities, they may be disproportionately impacted by the human health risks arising from contaminated fish consumption. Such health risks are quite high for mercury, namely developmental toxicity and neurotoxicity (Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories, 1995).	The environmental justice Chapter 3 Section of the Proposed RMP/Final EIS has been updated to comply with BLM Instruction Memorandum 2022-059.
King	Rachael	No organization name	None	56	3	Environmental Justice	212.0100.00	An additional environmental justice concern related to contaminated waterways is access to safe drinking water. That same mercury and arsenic coming from mine tailings could potentially accumulate to levels unsafe for drinking water, according to US EPA safe drinking water standards. Additional contaminants from mining may have similar potentials to build up in drinking water and threaten human health upon consumption of contaminated water. If such mining activities are taking place near water sources for environmental justice communities, those communities would once again be disproportionately impacted by the human health risks associated with contaminant consumption.	The Draft RMP/EIS Chapter 3, Section 3.2.3 discusses impacts on water quality included drinking water and public water sources.
King	Rachael	No organization name	None	56	4	Environmental Justice	212.0100.00	Finally, air quality may be an additional issue for environmental justice communities. Taking again the example of gold mine tailings, mercury can escape into the air in a particulate form that can later be deposited in the aforementioned water resources (Odumo et al., 2014). This is but one contaminant of concern for air quality from mineral resource extraction; others include nitrous oxides and sulfur dioxide from mineral processing plants. If mineral resource exploitation and processing occurs in or near environmental justice communities, these communities may be disproportionately affected by human health risks associated with contaminant ingestion and/or skin exposure. Therefore, environmental justice concerns extend beyond those explored in chapter 3 of this DEIS and differ among proposed alternatives. For example, under alternative B much less land is available for resource exploitation and would result in fewer environmental justice concerns. However, under alternatives C2 and D, much of the planning area is available for resource exploitation that may threaten various environmental justice communities with disproportionate impacts.	The environmental justice analysis relies on the ANILCA 810 analysis to assess whether there are negative effects on subsistence uses, rather than conducting an independent analysis. The ANILCA 810 analysis concluded that under the Proposed Plan in the Proposed RMP/Final EIS (Alternative E) there would not be significant effects on subsistence resources or resource access and uses from: energy and mineral management decisions; lands, realty, and utility corridor management decisions; recreation and visitor services management decisions; travel and transportation management; ACEC management decisions. The analysis therefore concluded that “Alternative E would not result in a significant restriction in subsistence uses and would not have a disproportionate negative impact on environmental justice communities.” The analysis reached the same conclusion when considering cumulative impacts. The BLM did conclude that several other alternatives would significantly restrict subsistence uses. The other main component of environmental justice is economic impacts. Restrictions on economic development would be considered a negative impact. The Environmental Justice section concludes that “Alternative E attempts to strike a balance between resource protection and resource development, which makes it difficult to identify a pattern of impacts that would suggest that environmental justice communities would be disproportionately negatively affected.”

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Chu	Rebecca	U.S. Environmental Protection Agency	None	67	21	Environmental Justice	212.0100.00	Environmental Justice is a critical concern for resource management planning decisions and future actions within the Central Yukon planning area, given that 22 out of 30 communities in the planning area are identified as having minority populations, low-income populations, or both. While the methodologies used in the analysis did identify most communities as having potential environmental justice considerations, we note that some aspects of the analysis did not follow common NEPA analysis practices. For example, we disagree with the characterization that "[t]he meaningfully greater analysis is generally used to make sure that no areas of minority populations are omitted if the 50% threshold does not identify any environmental justice populations." Rather, NEPA analyses commonly include a "meaningfully greater" analysis by comparing percent minority to a reference population, such as the state. Recommendation for the FEIS: Review the 2016 Promising Practices for EJ Methodologies in NEPA Reviews: Report of the Federal Interagency Working Group on Environmental Justice & NEPA Committee1 and determine whether any updates to the methodologies are appropriate for this analysis or future NEPA analyses for proposed actions in the planning area. 1 https://www.epa.gov/environmentaljustice/ej-iwg-promising-practices-ej-methodologies-nepa-reviews	The BLM followed its current direction to conduct the environmental justice analyses (IM2022-059). This includes conducting any "meaningfully greater" analysis using an appropriate reference area.
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	23	Environmental Justice	212.0100.00	The analysis of potential environmental justice impacts in the draft EIS identifies subsistence, social, and economic impacts as the primary impacts of concern to low-income and minority communities in the planning area. The discussion of potential subsistence impacts focuses on access to and availability of subsistence resources. It is unclear whether the potential for environmental contamination to impact residents of the communities or the subsistence resources they rely on has been considered. The potential for both contamination and perceived contamination of subsistence resources have been identified as environmental justice concerns in recent EISs for large-scale mineral development projects in Alaska. Recommendation for the FEIS: Analyze and disclose the potential for contamination or perceived contamination of subsistence resources to impact use of those resources by environmental justice communities in the planning area.	Health impacts will be evaluated when a specific proposed mining project is being assessed. In the absence of any specific project and any details of the proposed operation, health impacts cannot be assessed.
Little	Suzanne	The Pew Charitable Trusts	None	98	12	Environmental Justice	212.0100.00	Environmental justice principles require 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 principles require that no group of people should bear a disproportionate burden of environmental harms and risks, including those resulting from the negative environmental consequences of industrial, governmental, and commercial operations or programs and policies. Considering BLM's failure to include less than 1% of Tribally requested conservation elements in the Draft Central Yukon RMP, Pew believes that the above environmental justice principles have not been met by BLM in the Central Yukon planning process. BLM's failures in this regard have rendered the planning process unjust for planning area Tribes and communities.	The BLM followed its current environmental justice policy (IM2022-059) to conduct the analysis. We did not make a calculation of a percentage of requests made as part of this analysis. Instead, we rely on the consultation process and assessment of impacts made in the subsistence and social and economic analyses. The description of the analysis and impacts is described in the environmental justice section.
Costello	Naomi	Evansville Tribal Council	None	107	15	Environmental Justice	212.0100.00	The DEIS clearly indicates that Alternative C2 and D may result in a disproportionate, negative impact to Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, and Stevens Village.30 BLM should not identify a preferred alternative that may result in a disproportionate, negative impact to these environmental justice communities, particularly in light of the new environmental justice executive order of the current administration.31 All of the rural villages in the planning area qualify under environmental justice considerations since they are disadvantaged communities with limited economic development opportunities and village health care facilities. 30 DEIS 380, 381. 31 Executive Order on Tackling the Climate Crisis at Home and Abroad (Jan. 27, 2021) https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/ ("Agencies shall make achieving environmental justice part of their missions by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts.")	The BLM's Proposed Plan is Alternative E. The environmental justice analysis concluded that, that “Alternative E attempts to strike a balance between resource protection and resource development, which makes it difficult to identify a pattern of impacts that would suggest that environmental justice communities would be disproportionately negatively affected.”
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	6	Environmental Justice	212.0100.00	In addition, the Bureau's preferred alternative fails to prioritize environmental justice. Despite the agency's recognition that "[c]ontinued maintenance of healthy watersheds, riparian areas, and associated fish and wildlife habitats would support harvest of subsistence resources,"15 the preferred alternative removes protections from important watersheds and subsistence areas throughout the planning area and opens more land to mineral entry.16 This results in a disproportionate burden on Tribes whose subsistence way of life depends upon access to, and abundance of, subsistence resources. The agency acknowledged that under the preferred alternative, planning area Tribes would experience increased costs of living and heightened food insecurity.17 The Bureau's obligation to advance environmental justice requires that the agency do more to avoid placing disproportionate environmental burdens on planning area Tribes. 15 Draft RMP and EIS at 3-184. 16 See id. at 3-140, 3-180. 17 Id. at 3-180.	Under the Proposed Alternative, Alternative E, these impacts would be avoided. The Environmental Justice section concludes that “Alternative E attempts to strike a balance between resource protection and resource development, which makes it difficult to identify a pattern of impacts that would suggest that environmental justice communities would be disproportionately negatively affected.”
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	25	Environmental Justice	212.0100.00	The DEIS clearly indicates that Alternative C2 and D may result in a disproportionate, negative impact to Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, and Stevens Village.30. BLM should not identify a preferred alternative that may result in a disproportionate, negative impact to these environmental justice communities, particularly in light of the new environmental justice executive order of the current administration.31. All of the rural villages in the planning area qualify under environmental justice considerations since they are disadvantaged communities with limited economic development opportunities and village health care facilities. 30 DEIS 380, 381. 31 Executive Order on Tackling the Climate Crisis at Home and Abroad (Jan. 27, 2021) https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/ ("Agencies shall make achieving environmental justice part of their missions by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts.")	The BLM's Proposed Alternative is Alternative E. The environmental justice analysis concluded that, that “Alternative E attempts to strike a balance between resource protection and resource development, which makes it difficult to identify a pattern of impacts that would suggest that environmental justice communities would be disproportionately negatively affected.”
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	10	Environmental Justice	212.0100.00	Finally, we draw attention to the connection between our recommendations made elsewhere in this letter that call for protections to ensure fully-functioning ecosystems and abundant subsistence resources. The current proposal would likely result in federally-qualified subsistence users in rural villages that depend upon those resources experiencing a disproportionate, negative outcome from environmental harm. Furthermore, the sheer volume of the Draft RMP and EIS and the complexities within have made development of substantive comments extremely difficult for tribal members, especially rural residents. We support efforts by BLM to give reconsideration to the environmental justice effects of the preferred alternative - in consultation with associated tribes. Such action also is supported by Secretarial Orders 3398 and 3399.	The environmental justice analysis relies on the ANILCA 810 analysis to assess whether there are negative effects on subsistence uses, rather than conducting an independent analysis. The ANILCA 810 analysis concluded that under the Proposed Plan in the Proposed RMP/Final EIS (Alternative E) there would not be significant effects on subsistence resources or resource access and uses from: energy and mineral management decisions; lands, realty, and utility corridor management decisions; recreation and visitor services management decisions; travel and transportation management; ACEC management decisions. The analysis therefore concluded that “Alternative E would not result in a significant restriction in subsistence uses and would not have a disproportionate negative impact on environmental justice communities.” The analysis reached the same conclusion when considering cumulative impacts. The BLM did conclude that several other alternatives would significantly restrict subsistence uses. The other main component of environmental justice is economic impacts. Restrictions on economic development would be considered a negative impact. The Environmental Justice section concludes that “Alternative E attempts to strike a balance between resource protection and resource development, which makes it difficult to identify a pattern of impacts that would suggest that environmental justice communities would be disproportionately negatively affected.”
Williams	Frank	No organization name	None	101	4	Fish and Aquatic Species	208.0600.00	Significantly increase the amount of Right of Way exclusions to protect habitat connectivity in key connectivity areas outlined in Appendix G. Additionally incorporate a Right of Way exclusion area for the Jim River ACEC	ROW exclusion areas in Alternative B cover more acres than any other alternative; many of which are in connectivity corridors. ROW avoidance areas are in Alternatives B and C.

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Costello	Naomi	Evansville Tribal Council	None	107	23	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-3: Include mining along with drilling as a prohibited activity in the 100-year floodplain of fish-rearing rivers and streams, and fish-bearing lakes.34 34 DEIS F-5	Comment noted. Any proposed mining operations would require additional NEPA analysis including identifying any impacts to streams, water quality, or fish species.
Gestring	Bonnie	Earthworks	None	146	3	Fish and Aquatic Species	208.0600.00	The BLM's Analysis of the Management Situation (AMS) report, concludes that mining is already having an impact on water resources in the planning area: "Since the signing of the Utility Corridor Plan Record of Decision (ROD) in 1991, and the Central Yukon ROD in 1986, disturbed watersheds within the planning areas that are managed primarily by the BLM have experienced downward trends in fish habitat condition." It finds that "Most of the impact is tied to locatable mineral extraction occurring along the Dalton Highway and at remote sites scattered throughout the planning area." (emphasis added)(AMS p. 50). It also finds that mining in the planning area has had an adverse impact on water resources, and it predicts that mining will continue to have an adverse impact on water quality: "Historic and ongoing mining in the planning area, especially along the Utility Corridor, has led to localized degradation and of water quality and riparian conditions. These mining operations have unstable stream channels and often lack adequate erosion control measures. The disturbance of stream banks and streambeds, associated with surface disturbance, lead to increased erosion, turbidity, and suspended solids. In recent years, water quality meters have been installed above and below mining operations on Gold and Marion Creeks during open water periods when mining operations are active to determine if water quality standards are being met. These meters indicate that these streams (Gold Creek 2012 and Marion Creek 2013) have exceeded State of Alaska Water Quality Standards for turbidity especially during high flow events." (AMS, p. 18) "Mining operations will continue to degrade water quality due to loss of vegetation and sedimentation on a localized scale in some watersheds." (AMS, p. 18) As such, Alternatives C2, conflicts with the goals and objectives set forth in the RMP for fish and aquatic resource (DEIS, p. 2-15), such as those to: 1) Maintain water quality to prevent the listing of any Clean Water Act, Section 303d, impaired streams on BLM-managed lands, resulting solely from BLM-authorized activities, 2) Ensure that watersheds are in, or are making significant progress toward, a properly functioning physical condition, which includes their soils in upland, riparian, wetland, and aquatic areas, 3) Ensure the integrated ecological functions of rivers, streams, wetlands, lakes, and the associated riparian areas, 4) Retain the many significant values and ecosystem services associated with properly functioning aquatic and riparian habitat: biological diversity, recreation, aesthetics, soil productivity, water quality, food, and raw materials, 5) Maintain properly functioning riparian, wetland, and aquatic vegetation at levels appropriate to the watershed's soils, climate, and landform.	As required by 40 CFR 1502.16, the RMP/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives on water quality (Section 3.2.3) and fish and aquatic species (Section 3.2.6). Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public, including those related to water quality and fish and aquatic resources. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS. Additionally, the resulting action alternatives offer a range of possible management approaches for responding to planning issues and concerns related to water, fish, and riparian vegetation (Table 2-2) identified through public scoping. While the goals and objectives for these resources are the same across alternatives, each alternative contains a discrete set of management actions to achieve them and constitutes a separate RMP with the potential for different long-range outcomes and conditions.
Gestring	Bonnie	Earthworks	None	146	15	Fish and Aquatic Species	208.0600.00	The Fourth National Climate Change Assessment also documents the increasing rate of ocean acidification, including significant changes in the Bering Sea.12 These ocean changes could have significance for anadromous fish, such as salmon, that migrate from the ocean into the planning area. The DEIS should consider the cumulative effects of climate change, including the impacts of ocean acidification on important anadromous fish populations in the planning area, in conjunction with the potential impacts of the proposed action. 12 Fourth National Climate Assessment (RCP8.5) (see Ch. 2: Climate, Box 2.7 and the Scenario Products section of App. 3)	Section 3.2.6 in the RMP/EIS has been revised to include a discussion of the impacts of ocean acidification on fish populations.
Gestring	Bonnie	Earthworks	None	146	17	Fish and Aquatic Species	208.0600.00	The DEIS should take a hard look at the adverse direct, indirect and cumulative effects to fish and other aquatic species from the dramatic increases in water temperature resulting from climate change, which have caused fish die-offs in several watersheds affected by potential mining in and around the planning area. In June 2019, the Tubutulik near Elim and Koyuk had record high temperatures at the Vulcan Creek gage site 30 miles from the mouth; hundreds of otherwise healthy (not spawned out) dead fish including pink and chum salmon and white fish in the river were observed.15 15 https://www.adn.com/alaska-news/wildlife/2019/08/23/alaska-salmon-deaths-blamed-on-record-hightemperatures/ A 2020 USGS study has determined that "Chinook salmon (Oncorhynchus tshawytscha) declines are widespread and may be attributed, at least in part, to warming river temperatures. Water temperatures in the Yukon River and tributaries often exceed 18?C, a threshold commonly associated with heat stress and elevated mortality in Pacific salmon."16 The BLM must consider the effects of these warming temperatures on fish and other aquatic life, in addition to the potential warming effects from other activities in the planning area. 16 Bowen et. al., Transcriptomic response to elevated water temperatures in adult migrating Yukon River Chinook Salmon" Conservation Physiology, Volume 8-2020. https://pubs.er.usgs.gov/publication/70215368	Section 3.2.6 in the RMP/EIS has been revised to include a discussion of the impacts of increases in water temperature on fish populations.
Gestring	Bonnie	Earthworks	None	146	19	Fish and Aquatic Species	208.0600.00	Similarly, in the Yukon River watershed, rivers that traditionally remained frozen are beginning to melt as a result of warming temperatures; permafrost is also degrading during the winter months, resulting in increasing geochemical river loads and groundwater movement.21 21 National Science Foundation, NNA Track 1, Collaborative Research: The climate impacts on Alaska communities as told through co-produced scenarios 2020-2024. National Science Foundation awards 1928189. Thawing permafrost, in particular, has significant impacts on aquatic ecosystems through the release of carbon, mercury, and nutrients.22 22 C.L. Ping et al., "Permafrost soils and carbon cycling" Soil, 2015; Frey et al., "Impacts of permafrost degradation on arctic river biogeochemistry," Hydrologic Processes, 2009, p. 169-182. The RMP/therefore, ignores the effects that opening all BLM lands within the planning area, including rivers and streams that contain critical fish and wildlife habitat, can have on reducing stream flows, and thereby, exacerbating the impacts of higher temperatures on such habitat. In addition, at just about any life stage salmon need cold water. Especially when they are already swimming many miles up streams to return to spawning areas, the fish can start running into trouble if the water temperature is over 59°F. Initially, these fish can become susceptible to diseases and exposure to toxins and their metabolisms which are already running high, can accelerate. Also, when water temperature goes up, dissolved oxygen goes down, at a time when salmon need more oxygen because the higher temperatures elevate their metabolism, respiration and oxygen demands. If the temperatures keep rising, the fish's blood is unable to carry enough oxygen to their brains and bodies and they can die of a heart attack.	Section 3.2.6 in the RMP/EIS has been revised to include a discussion of the impacts of increases in water temperature on fish populations.

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Gestring	Bonnie	Earthworks	None	146	20	Fish and Aquatic Species	208.0600.00	In 2019, salmon were dying in rivers across western Alaska. In addition, dramatic increases in temperature as a result of climate change, have caused fish die-offs in several watersheds affected by potential mining within and nearby the planning area. In a July 2019 interview conducted by Nome radio station KNOM, Wes Jones, Director of Fisheries, Research, and Development for the Norton Sound Economic Development Corporation, said the scope of the larger-than-normal salmon die-off in Norton Sound signaled a shift in the arctic freshwater ecosystems and affected several communities from east to west, including Kotlik, Elim, Unalakleet, Shaktoolik, Golovin, Alakanuk, and Akiak. According to Jones, "There's been reports all the way from [Unalakleet] in Eastern Norton Sound all the way over to the Nome area. And it's a very widespread area. The big change is that it appears that it is a much bigger event happening in Eastern Norton Sound than what you're seeing as you get closer to the Nome area."23 23 Davis Hovey, "Warmer Waters Believed To Be Main Cause for Dead Pink Salmon in Norton Sound," By July 11, 20. https://www.alaskapublic.org/2019/07/11/warmer-waters-believed-to-be-main-cause-for-dead-pink-salmon-in-norton-sound/ The largest die-off reportedly comes from the Koyukuk River, a tributary of the Yukon. And as KYUK's Anna Rose MacArthur reports, scientists suspect the summer's record heat is the cause. While using the Koyukuk River for subsistence fishing that summer, residents from the local community counted hundreds of dead summer chum. The Yukon River Inter-Tribal Fish Commission, which flew a team of scientists to the Koyukuk to see what was happening, recorded piles of dead salmon washed up. The salmon had not spawned. They had underdeveloped eggs and sperm, meaning they still had a long way to go upstream. According to Peter Westley "A river that is usually teeming with life felt like a tomb."24The team also recorded temperature readings as high as 90 degrees in some of the shallower tributaries of the River. 24 Anna Rose McArthur, "Why are salmon being found dead in rivers across western Alaska?" National Public Radio, August 13, 2019. Due to this substantial oversight in the Draft RMP/EIS and other BLM planning documents statewide cumulative impact analysis, several tribes and tribal organizations sent a letter to Chad Padgett requesting that the BLM cease revocations of withdrawals ANCSA (d)(1) lands until adequate analysis of climate impacts can be conducted.25 25 Letter to David Bernhardt, Interior Secretary and William Perry Pendley, BLM Deputy Director, Request to cease revocations of withdrawals ANCSA (d)(1) Lands, October 28, 2020. Available at: https://www.dropbox.com/s/nmmfk542061de5o/Letter%20to%20DOI%20on%20AK%20BLM%20D1%20Lands%20_%20Oct%2028%202020%20copy%202.pdf?dl=0	Section 3.2.6 in the RMP/EIS has been revised to include a discussion of the impacts of increases in water temperature on fish populations.
Gestring	Bonnie	Earthworks	None	146	23	Fish and Aquatic Species	208.0600.00	A 2020 study found reduced body size in fish across Alaska associated with climate change and competition at sea.28 It finds that the reduced size in adult salmon after 2010 has potentially resulted in substantial losses to ecosystems and people; for chinook salmon they estimated average per-fish reductions in egg production (-16%) nutrient transport (-28%) fisheries value (-21%), and meals for rural people (-26%).29 28 Oke, et al., "Recent declines in salmon body size impact ecosystems and fisheries," Nature Communications 11, Article 4155, August 19, 2020. Available: https://www.nature.com/articles/s41467-020-17726-z 29 Id. The DEIS must consider the cumulative effects of climate change, including increase in total dissolved solids, ocean acidification, potential for spills and other accidental hazardous releases, and the other potential impacts listed above.	Impacts from increased water temperature on fish are already included in the section on climate change in Section 3.2.6. Oke et al. did not directly study climate change or link climate change to reduced body size but instead noted that it may be a factor for salmon including other factors, such as harvest. No change made.
Gestring	Bonnie	Earthworks	None	146	46	Fish and Aquatic Species	208.0600.00	The DEIS must take a hard look at the direct, indirect and cumulative impacts to fish, particularly Yukon River chinook salmon stock, which are currently designated a stock of concern. In the BLM's Analysis of the Management Situation (AMS) report, the BLM concludes that mining is already having causing a downward trend in fish habitat condition due to mining: "Since the signing of the Utility Corridor Plan Record of Decision (ROD) in 1991, and the Central Yukon ROD in 1986, disturbed watersheds within the planning areas that are managed primarily by the BLM have experienced downward trends in fish habitat condition. This is due in large part to a steady increase in development. Most of the impact is tied to locatable mineral extraction occurring along the Dalton Highway and at remote sites scattered throughout the planning area." (emphasis added)(AMS p. 50). Climate change is also contributing to widespread impacts to fish and fish habitat within the planning area. A 2020 study finds that "Chinook salmon (Oncorhynchus tshawytscha) declines are widespread and may be attributed, at least in part, to warming river temperatures. Water temperatures in the Yukon River and tributaries often exceed 18?C, a threshold commonly associated with heat stress and elevated mortality in Pacific salmon."49 49 https://pubs.er.usgs.gov/publication/70215368 Yet, the DEIS fails to address the downward trend in fish habitat condition, nor take a hard look at the potential impact to important fish and fish habitat from opening the entire area to mining and oil and gas development in Alternative C-2.	Section 3.2.6 in the RMP/EIS has been revised to include a discussion of the impacts of increases in water temperature on fish populations.
Magee	Susan	State Of Alaska	None	165	57	Fish and Aquatic Species	208.0600.00	Revise SOPs that address work within anadromous waterbodies or in discussions on potential impacts to resident fish passage within waterbodies, to clarify that an ADF&G Title 16 permit must be obtained, and that the Authorizing Officer will work with ADF&G to determine allowances and appropriate stipulations. (e.g., SO WAT/FISH-1. Road crossings or low water crossings (fords) will not be permitted in the spawning habitat of fish species during spawning or the immobile life stages of fish (eggs and alevins), unless the applicant can demonstrate to the AO that on a site-specific basis impacts would be minimal; SO WAT/FISH-2; SO WAT/FISH-3; SO WAT/FISH-4; SO WAT/FISH-10 and as applicable, SO WAT/FISH-6, SO WAT/FISH-7; SO WAT/FISH-9, SO WAT/FISH-11; SO WAT/FISH-12; SO WAT/FISH-14; and SO WAT/FISH-15.)	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance. Obtaining a title 16 permit is a State of Alaska action.
West	Jeri	Alyeska Pipeline Service Company	None	196	10	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-1 Alyeska finds this SOP to be duplicative of ADF&G Title 16 requirements and could potentially create unnecessary potential conflicts between agencies and their professional judgements. In addition, Alyeska's review of this SOP finds that it does not define where the actual regulatory boundaries are. Alyeska suggests this SOP be changed to the following: "Protect existing fish habitat by avoiding, minimizing, or mitigating damage to fish spawning and migration areas in accordance with ADF&G guidelines and permit requirements."	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
West	Jeri	Alyeska Pipeline Service Company	None	196	11	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-2 Alyeska finds this SOP to be duplicative of ADF&G Title 16 requirements and could potentially create unnecessary potential conflicts between agencies and their professional judgements. Alyeska suggests the following as a replacement for this SOP: "Maintain fish passage through or around work sites and drainage structures. Design stream crossing structures to convey expected flood flows. New in-stream structures should conform to ADF&G fish passage requirements."	Language in the RMP/EIS has been changed to: 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 or improve fish and aquatic organism passage; • Maintain channel integrity; • Accommodate mean bank full channel widths; and • Incorporate adjacent reclamation (such as willow cuttings, wattles, brush layering) on the disturbed areas up and downstream of the abutments.
West	Jeri	Alyeska Pipeline Service Company	None	196	12	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-3 Alyeska finds the phrasing in this section to be vague, undefined and lacking a clear purpose. Additionally, Alyeska's review of this requirement finds it to be impractical to prohibit drilling in the "100-year floodplain of fish-bearing rivers and streams," in Alaska for several reasons. First, such a requirement would preclude most rivers and streams across the state. Second, in many streams in Alaska, the 100-year floodplain can entail a major portion of a valley. And lastly, drilling is often the chosen method of exploration because it can be done with minimal impact to the surface geography. Therefore, Alyeska recommends the deletion of this SOP WAT/FISH-3 entirely.	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
West	Jeri	Alyeska Pipeline Service Company	None	196	13	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-4 Overall, Alyeska finds the phrasing in this section to be vague and undefined. Alyeska finds the requirement, "Pesticides and other toxicants will be applied in a manner that does not measurably inhibit the attainment of desired conditions or adversely impact priority aquatic species," to be duplicative of ADEC requirements. Alyeska would like to suggest the following phrasing in its place: "Use of pesticides and other toxicants in or near waterbodies should follow ADEC Pesticide Control Program permitting requirements and a best practices approach."	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.

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West	Jeri	Alyeska Pipeline Service Company	None	196	14	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-5 Alyeska finds the phrasing in this section to be vague, undefined and only applicable to fish bearing bodies of water. Additionally, Alyeska is unclear of the scope and applicability (i.e. known fish streams or all water bodies?). Alyeska suggests that this SOP be edited to only applicable to water intakes in fish bearing water as identified by ADF&G by the following wording: "Prevent direct impact to fish by following ADF&G best practices for water withdrawal in fish bearing water."	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
West	Jeri	Alyeska Pipeline Service Company	None	196	15	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-6 Alyeska finds this SOP to be unclear in scope and application and suggest that BLM provide an example of what this applies to, or, create a separate category of SOPs for specific types of disturbance. Alyeska recommends editing this SOP to the following: "Limit disturbance of stream, riparian, and floodplain function during surface disturbing activities. Upon project completion, natural channel and floodplain function should be restored."	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
West	Jeri	Alyeska Pipeline Service Company	None	196	16	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-8 Alyeska finds the phrasing in this section to be vague and suggests the following instead: "Maintain surface water quality by following EPA and ADEC stormwater, dewatering and water discharge requirements. Implement best practices for control and treatment of stormwater and other discharges."	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
West	Jeri	Alyeska Pipeline Service Company	None	196	17	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-7 Alyeska finds the phrasing in this section to be vague and unclear.	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
West	Jeri	Alyeska Pipeline Service Company	None	196	18	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-9 Alyeska finds this phrasing too complex for a universally applicable SOP and suggests replacing with the following: "Utilize natural channel design and practices when restoring disturbed stream channels."	SOP WAT/FISH 9 has been changed to "Altered stream channels 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. Alternatively, a new channel will be created at the stream's lowest energy state (valley bottom). Stream channels will be restored to approximate the pre-disturbance channel utilizing natural channel design methods and practices."
West	Jeri	Alyeska Pipeline Service Company	None	196	19	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-10 Alyeska finds this SOP to be duplicative of ADF&G Title 16 requirements. Additionally, Alyeska's review finds that this SOP has the potential to create unnecessary conflicts between agencies and could generate a duplicative permitting process. Alyeska suggests changing the phrasing to the following: "Maintain fish passage and water flow through or around work sites and drainage structures. New in-stream structures should conform to ADF&G fish passage requirements."	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
West	Jeri	Alyeska Pipeline Service Company	None	196	20	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-11 Alyeska finds the phrasing "will be compatible with the capability of the site" to be vague and unclear and proposes the following replacement text: "Re-vegetation efforts should mimic a site's pre-existing vegetation types, or should allow for natural re-invasion of local plant species while maintaining the riparian function and hydrologic regime."	The SOP has been revised to add "Revegetation treatments should mimic a site's pre-disturbance vegetation types" at the end of the SOP.
West	Jeri	Alyeska Pipeline Service Company	None	196	21	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-12 Overall, Alyeska finds this SOP overly prescriptive. Alyeska's review of this SOP has found several potential issues with this process. First, compliance with this SOP could result in conflicts with safety or other environmental concerns. Second, while travel up or down the stream channel (SOP WAT/FISH-14) may be a better option, it appears to be in conflict with this SOP. Therefore, Alyeska suggests the following replacement text: "Streams should be crossed at locations with the least impact to aquatic life and riparian vegetation, and in such a manner to not cause unnecessary disturbance to stream banks."	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
West	Jeri	Alyeska Pipeline Service Company	None	196	22	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-14 Alyeska finds this SOP to be overly prescriptive and in apparent conflict with SOP WAT/FISH12. Alyeska therefore suggests the following language to be used in its place: "Vehicular travel in streambeds is discouraged, unless it results in the least disturbance of all other options. In such cases, rivers and streams should be crossed at shallow riffles, from point bar to point bar, whenever possible."	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
West	Jeri	Alyeska Pipeline Service Company	None	196	23	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-15 Alyeska understands this SOP to be duplicative of ADF&G Title 16 requirements, which could create unnecessary conflicts between agencies. Alyeska also asserts that this SOP attempts to address a complex array of issues beyond what an SOP can effectively provide a solution to. Therefore, Alyeska recommends editing this SOP to the following: "Maintain fish passage and water flow through or around work sites and drainage structures. New in-stream structures should conform to ADF&G fish passage requirements."	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance. The BLM rewrote the third bullet under SOP WAT/FISH 15 "Stream and marsh crossings are to be designed based on relevant reference reach or regional hydrologic data."
West	Jeri	Alyeska Pipeline Service Company	None	196	29	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-16 Alyeska finds this SOP to be unclear in scope, and for the BLM to provide a clear definition for what they deem "priority fish species spawning habitat."	SOP WAT/FISH - 16 has been edited to change "priority fish species spawning habitat" to "fish spawning habitat."

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Brown	Loretta	SalmonState	None	198	2	Fish and Aquatic Species	208.0600.00	The Draft EIS prepared by BLM for the Central Yukon RMP brushes the surface of potential impacts to fish and aquatic resources but does little to discuss the significance or extent of those impacts from reasonably foreseeable activity due to the BLM's adoption of the RMP. While the BLM acknowledges that "most of the aquatic habitats in the planning area are in natural or near natural condition and fish populations appear to be sustaining themselves,"7 and that "the primary potential direct and indirect impacts of management allocation decisions relate to habitat loss and alteration, disturbance and displacement, and injury and mortality,"8 the Draft EIS fails to discuss the significant adverse impacts of reasonably foreseeable development, such as discharge of toxic mine waste in important anadromous and freshwater fish populations streams, erosion and increased turbidity in fishbearing streams from new roads, and compounding effects of development and climate change on the fish and aquatic resources and habitat. While the Draft EIS acknowledges that "withdrawals of lands from locatable mineral entry likely provides the most meaningful protections for fish and aquatic species and their habitat"9 the BLM chooses to ignore this in selection of the preferred alternative. Alternative C2, the preferred alternative identified by BLM in the Draft EIS opens Central Yukon lands "100 percent… to locatable mineral entry"10 and prioritizes road and utility access along the Ambler and Umiat corridors, which is reasonably foreseeable to lead to large scale mining activities that will occur within the Central Yukon planning area. As such, BLM should conduct a robust evaluation of the potential impacts of large scale mining operations, waste storage, and waste disposal on the fish, fish habitat, and aquatic resources of the Central Yukon planning area. Of particular concern are short and long term impacts of permanent destruction of stream miles and supporting wetlands, as well as, toxic contamination of streams, rivers, waterbodies, and wetlands and the resulting impacts to fish habitat, populations, diversity, and subsistence access to these important resources. Rather than opening lands to locatable mineral entry under Alternative C2, BLM should identify a preferred alternative in which withdrawals are immortalized and nominated ACECs, most of which were nominated by Tribes, are designated to protect fish and aquatic resources. 7 Draft RMP and DEIS, at 3-64 8 Draft RMP and DEIS, at 3-71 9 Draft RMP and EIS, at 3-66 10 Draft RMP and DEIS, at 3- 7	As required by 40 CFR 1502.16, the RMP/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives on fish and aquatic species (Section 3.2.6). Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public, including those related to fish and aquatic resources. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Brown	Loretta	SalmonState	None	198	3	Fish and Aquatic Species	208.0600.00	discussion of fish and aquatic resources in the Central Yukon planning area is done in a generalized fashion, with little discussion regarding the potential impacts on those fish and aquatic resources important to the local and regional environment and communities. Under NEPA, scientific information and analysis is key to a successful and informative review process. NEPA requires BLM to use "accurate scientific information"11 and an agency must "insure the professional . . . [and] scientific integrity, of the discussions and analyses in environmental impact statements."12 Furthermore, Executive Order 1400813 and the National Climate Task Force's "Conserving and Restoring America the Beautiful"14 report charges BLM with "conserv[ing] our lands, waters, and biodiversity," to reach the goal of "conserv[ing] "at least 30 percent of our lands and waters by 2030." To fulfill these requirements under NEPA for analysis of the potential impacts of the RMP on fish and aquatic species and further this Administration's climate goals, BLM should include a more robust review and discussion of the Yukon River chinook salmon run, sheefish, cisco, and whitefish population, abundance, and habitat, as well as the compounding impacts of BLM activities and climate change on these fish, and the impacts of their potential loss as subsistence resources.	A land use planning-level decision is broad in scope and, therefore, does not require an exhaustive gathering and monitoring of baseline data. The baseline data provides the necessary basis to make informed land use plan-level decisions. The baseline data related to fish and aquatic species is summarized in Section 3.2.6 of the RMP/EIS with more details provided in the AMS which is hyperlinked in the document. Land use plan-level analyses are typically broad and qualitative rather than quantitative or focused on site-specific actions (BLM Land Use Planning Handbook H-1601-1, Chapter II, A-B at 11-13). The BLM will conduct subsequent project-specific NEPA analyses for projects proposed for implementation under the RMP. The subsequent NEPA analyses for project-specific actions will tier to the land-use planning analysis and evaluate project impacts at the appropriate site-specific level (40 CFR 1502.20, 40 CFR 1508.28).
Brown	Loretta	SalmonState	None	198	4	Fish and Aquatic Species	208.0600.00	The Draft EIS and RMP for the Central Yukon planning area fails to fully appreciate the direct, indirect, and cumulative impacts of mineral entry and development compounded with climate change in the planning area on the already stressed Yukon River Chinook salmon run. The BLM should provide additional analysis regarding the potential impacts of mining and climate change on the Yukon River Chinook salmon runs. The BLM should also incorporate that additional analysis to identify a preferred alternative that protects and aids in the recovery of this vital fishery.	Section 3.2.6 in the RMP/EIS has been revised to include a discussion of the impacts of increases in water temperature on fish populations.
Crockett	Deantha	Alaska Miners Association	None	199	56	Fish and Aquatic Species	208.0600.00	F2.3 Watershed and Fisheries (WAT/FISH). These requirements should be deleted as fish and fish habitat protection are already regulated by the Alaska Department of Fish and Game under Alaska Statutes Title 16. In addition, this SOP does not define where the regulatory boundaries are. Under SOP WAT/FISH-1&2, the issues concerning stream crossings are already practiced. In SOP WAT/FISH-3, it is not practical nor necessary to prohibit drilling in the 100-year floodplain of fish-bearing rivers and streams, which would include most rivers and streams in Alaska. In many streams, the 100-year floodplain can entail a major portion of a valley. Drilling is often the chosen method of exploration because it can be done with minimal impact. SOP WAT/FISH-3 should be deleted. SOP WAT/FISH-15 concerns stream and marsh crossings. It has several stipulations which are commonly practiced now, but it has one stipulation that would be an impediment for many current placer operators. It states that "stream and marsh crossings are to be designed on at least 1 year of relevant hydrological data". Many, if not, most streams in Alaska do not have 1 year of stream specific hydrological data. Appropriate project designs, including mitigation, can typically be determined based on existing information for a watershed (or nearby analogous watersheds) without the need for time consuming and costly hydrologic data collection over an arbitrary (and potentially non representative) one year period. As such, SOP WAT/FISH 15 should be deleted as a requirement in the RMP. Many of the rest of the SOP WAT/FISH stipulations are already being practiced or are not project prohibitive.	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance. The third bullet under SOP WAT/FISH 15 has been changed to "Stream and marsh crossings are to be designed on of relevant reference reach or regional hydrologic data."
Crockett	Deantha	Alaska Miners Association	None	199	81	Fish and Aquatic Species	208.0600.00	Watershed Aquatic Resource Value Model (ARM). Fish resources in the RMP are ranked via an ARM (aquatic resource value) model, which analyzes species diversity, endangered species presence, non-salmon anadromous species, essential fish habitat, and "rare" or "unique" fish habitat or resources. The model is scored, according to the RMP, via "GIS modeling and professional judgement". "Results" of the model are said to be on the BLM website - however, a search of the website yielded only a document describing the model: "Table 2 Rank Criteria and Scoring Used to Identify Aquatic Resource Values" (https://eplanning.blm.gov/public_projects/lup/36665/54875/59566/BSWI_Watershed_Analysis_Framework_Process-maps.pdf) listing the scoring points for each category of the ARM (ESA listed species present = 3 points; rare habitats unspecified up to 10 points etc.). No descriptions are given of the types, quantity, or age of field data available (based on one 1935 survey or continuous monitoring for 30+ years) for any of the categories used. As a result, there is no reasonable basis for using the methodology to establish broad prohibitions or avoidance requirements, or overly prescriptive restrictions on development activities especially since all of these will be subject to project specific analyses and authorizations by BLM and State agencies with specific expertise and mandates for protection of aquatic resources. We recommend BLM not use the model to establish blanket prohibitions or overly restrictive prescriptive requirements.	Details regarding the ARM and WCM including data types are described in **Appendix H**, Sections H.2 and H.3. In these sections it describes the scoring system, who is doing the analysis, and previous work from which these models were developed.
Crockett	Deantha	Alaska Miners Association	None	199	82	Fish and Aquatic Species	208.0600.00	WCM - Watershed Condition Model. Riparian and aquatic habitat health are evaluated by 6thlevel (12 digit) hydrologic units by the WCM model, which includes 4 categories based on a "set of model attributes, including, but not limited to water quality conditions, aquatic and terrestrial habitat conditions, aquatic species diversity, riparian function, soil conditions, and invasive species presence / absence" The model overall is poorly described, with little indication of how "values" are assigned, who does the assigning, and what other attributes or evaluation parameters might be included. The BLM analyses includes projections of the duration and magnitude of changes in water quantity, quality, habitat etc. but are in an area where little baseline data have been gathered, and the data record does not include a sufficient length of time to define what "original" conditions are or what their natural annual or diurnal variability might be. A "weighted scoring system" (undefined in the RMP document) is applied to each watershed based on "Presence or absence of model attributes". Watersheds are scored via GIS modeling and "professional judgement", although no indication is given in the report of whose judgments these are, nor their profession or qualifications. Only the "results" (not the criteria, or process) of the WCM and ARM models/indices are available on the BLM website; the RMP simply accepts the model as definitive. Similar to the ARM, because the WCM description does not identify the detailed scientific basis for using the methodology, we recommend BLM not use the model to establish blanket prohibitions or overly restrictive prescriptive requirements.	Details regarding the ARM and WCM including data types are described in **Appendix H**, Sections H.2 and H.3. In these sections it describes the scoring system, who is doing the analysis, and previous work from which these models were developed.

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Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	32	Fish and Aquatic Species	208.0600.00	SOP WAT/FISH-3: Include mining along with drilling as a prohibited activity in the 100-year floodplain of fish-rearing rivers and streams, and fish-bearing lakes.34 34 DEIS F-5	Comment noted. Any proposed mining operations would require additional NEPA analysis including identifying any impacts to streams, water quality, or fish species.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	21	Fish and Aquatic Species	208.0600.00	The full range of action alternatives presented in the RMP significantly favor resource development at the expense of resource conservation. Under the preferred alternative (C2), fish and wildlife habitat could be affected by mining in 98 percent of the planning area, as opposed to 52 percent under the existing plan. While the DEIS provides useful information about the impacts of surface-disturbing development activities, the preferred alternative (C2) fails to provide adequate safeguards for fish and wildlife habitat and related resources uses, such as recreational hunting and fishing, subsistence uses, and wildlife viewing. The agency's own analysis acknowledges that the preferred alternative would result in adverse impacts to high-value fish habitat, increase the loss of important habitat for Dall sheep, and could result in caribou population declines.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM considers reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives, including those related to fish and wildlife habitat as shown in Tables 2-2 and 2-4 of the RMP/EIS. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	24	Fish and Aquatic Species	208.0600.00	The TRCP supports the BLM's policy "to manage habitat with emphasis on ecosystems to ensure self-sustaining populations and a natural abundance and diversity of wildlife, fish, and plant resources on public lands" (BLM Analysis of the Management Situation, p. 52). We appreciate that the draft RMP links habitat connectivity and climate resilience. Appendix G states, "Maintaining connectivity corridors, resilience, and adaptability are key to managing for such changes" (p. G-2). Despite research demonstrating that increasing connectivity and facilitating wildlife movement is critical for preventing biodiversity losses, many of the actions proposed in the DEIS-especially the recommended revocations of ANCSA d-1 withdrawals and PLO 5150-would negatively affect habitat connectivity.	Any potential actions that occur on lands if they are revoked are outside the jurisdiction of the BLM and would be speculative to analyze in the RMP/EIS. The BLM will only make decisions on lands that fall under BLM's jurisdiction (including subsurface minerals). As required by 40 CFR 1502.16, the RMP/EIS provides a discussion of the environmental impacts of the alternatives on wildlife movement and connectivity in Section 3.2.7 of the Draft RMP.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	63	Fish and Aquatic Species	208.0600.00	We are encouraged to see a set of 16 common-sense standard operating procedures (SOPs) for watersheds and fisheries in Appendix F of the Central Yukon draft RMP (p. F-4 to F-6), such as: * Road crossings or low water crossings will not be permitted in the spawning habitat of fish species during spaying or the immobile life stages of fish, unless the applicant can demonstrate that on a site-specific basis impacts would be minimal. * New, replacement, and reconstructed stream crossing structures, such as bridges and culverts, will be designed to preserve or improve fish passage. * Drilling is prohibited in the 100-year floodplain of fish-bearing rivers and streams, and fish bearing lakes, except where the applicant can demonstrate on a site-specific basis that impacts would be minimal. * All water intakes will be screened and designed to prevent fish intake and mortality, in accordance with Alaska Department of Fish and Game regulations. * All permitted operations will be conducted so as not to block any stream or drainage system, unless temporarily authorized. We urge the BLM to require these SOPs apply to all notice-level mining operations of less than five acres.	As described in **Appendix F** of the Draft RMP/EIS, "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	54	Fish and Aquatic Species	208.0600.00	It is BLM policy (BLM Planning Handbook, H-1601-1) to identify land uses (allocations) that are allowable or prohibited to meet goals and objectives and that are necessary to protect sensitive resource values. Since all action alternatives allocate a majority of the decision area to intensive development, thereby exposing the estimated 31,432 miles of stream and 76,000 acres of lakes and ponds (AMS 2016, Fish and Aquatic Species Habitat Condition, page 48) within the decision area to degradation, we question how the goal above can be realistically achieved as required by policy. We recommend that BLM reallocate the various land uses so as to realistically achieve the desired conditions identified not only for fish and aquatic species but all other resources that the agency is mandated to manage on a sustainable basis. It appears that BLM used an allocation process whereby it first allocated all of the intensive development use and then applied reactive management actions in an attempt to mitigate the foreseeable impact. By reversing the allocation procedure used and first allocating the area to sensitive resources then allowing for intensive development use in areas with little or no conflict the BLM will have met its mandates of multiple use and sustained yield. This is especially true if BLM considers that its multiple use mandate has largely been met by allocations just approved for the adjacent Bering Sea-Western Interior decision area.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM considers reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS. Additionally, the resulting action alternatives offer a range of possible management approaches for responding to planning issues and concerns identified through public scoping. While the goals are often the same across alternatives, each alternative contains a discrete set of objectives and management actions and constitutes a separate RMP with the potential for different long-range outcomes and conditions.
Spindler	Mike	The Wildlife Society	None	83	15	FLPMA	104.0000.00	I support this aspect of Alternative A, no action, because it is the only alternative that does not revoke the D1 withdrawals. All of the action alternatives revoke 100% of the D1 withdrawals, 5.253 million acres (Table 2-1, pg. 2-10). The D1 withdrawals have provided a measure of interim wildlife and fish habitat protection. Again, I believe it is in the national interest to keep these withdrawals in place because it is difficult figure out what will take the place of the historic interim protection that was provided by the D1 withdrawals. Table 2-1 (pg. 2-5 to 2-11) does not give any indication of replacement FLPMA withdrawals; it only shows revocations. The RMP/DEIS states "….additional FLPMA withdrawals are proposed under Alternative B…" (pg. 3-61). It also states: "Recommend New FLPMA withdrawals or modifications to existing withdrawals to meet current and future management needs" (Table 2-19, pg. 2-50). Both mentions of recommended FLPMA withdrawals are vague and do not specify where, or how much. Table 3-20 (pg. 3-138) estimates there will be 1.4 million acres recommended as FLPMA replacement withdrawals in Alternative B and only 156,000 acres for Alternative C1. Appendix J (Land Allocations, pg. J44-J45) is slightly more specific, indicating "recommended for withdrawal from locatable mineral entry" for the inner PLO 5150 corridor and approved ACECs in Alternatives B and C1. An honest and transparent strategy should be provided in the final RMP/FEIS: e.g. "BLM will recommend xx acres of D1 withdrawals in xx places, but the Secretary of Interior will take no action until such time as replacement FLPMA withdrawals of xx acres in xx places are assured." The final RMP/FEIS must provide acreages and maps of exactly where the BLM will recommend replacement FLPMA withdrawals for each township of D1 revocation. The final RMP/FEIS must outline which ACEC's will be backed up by replacement FLPMA withdrawals, and which ACECs will be supported by other specific habitat protection measures.	Maps 2.31 and 2.32 in the Draft RMP/EIS display proposed withdrawals under the action alternatives. Lands recommended for withdrawal from locatable mineral entry are described in **Appendix J**.
Little	Suzanne	The Pew Charitable Trusts	None	98	16	FLPMA	104.0000.00	BLM failed to comply with its multiple use and sustained yield mandates. FLPMA requires that the BLM "manage the public lands under principles of multiple use and sustained yield." Multiple use means "a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations ... with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output." In contrast, BLM's Draft RMP emphasizes extractive resource development at the expense of uses important to planning area Tribes. In the Central Yukon DRMP, 99 % of BLM-managed land in the planning area would be open to the possibility of locatable mineral development and 99 % of the planning area is open to rights-of-way development. The Central Yukon Preferred Alternative C2 manages the 12.7 million acres with wilderness characteristics to emphasize other uses as a priority over protecting wilderness characteristics. The Central Yukon DRMP revokes all 5.3 million acres of withdrawals under Alaska Native Claims Settlement Act (ANCSA) § 17(d)(1) without adequate analysis and fails to include other protective measures for important resources located within current withdrawals. Because of Tribes' close connections with BLM-managed land, the agency should explore its ability under the Federal Land Policy Management Act, Section 307 to enter into cooperative agreements with Tribes or the Tribal Commission for the management or co-management and protection of public lands.	Section 102(a)(7) of FLPMA declares that it is the policy of the United States that management of the public lands be on the basis of "multiple use" and "sustained yield". Section 103(c) of FLPMA defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people. FLPMA's multiple use policy does not require that all uses be allowed on all areas of the public lands. Through the land use planning process, the BLM evaluates and chooses an appropriate balance of resource uses which involves tradeoffs between competing uses. Rather, the BLM has wide latitude to allocate the public lands to particular uses, and to employ the mechanism of land use allocation to protect for certain resource values, or, conversely, develop some resource values to the detriment of others, short of unnecessary and undue degradation.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Costello	Naomi	Evansville Tribal Council	None	107	1	FLPMA	104.0000.00	Alternative C-2 does not comply with FLPMA BLM has selected Alternative C2 as the preferred alternative. Alternative C2 is essentially the same as Alternative D, with both tipped so strongly toward resource development and away from conservation and subsistence that violates the multiple use and sustained yield mandate of FLPMA (43 U.S.C. §§?1701(a)(7);?1702(c), 1712(c)). It is deeply concerning that BLM selected C2 as its preferred alternative despite the fact that it is one of the two alternatives that poses "the greatest potential for direct and indirect adverse effects on cultural resources."1 Cultural resources include the modern subsistence lifeways of contemporary tribal communities. Both C2 and D recommend eliminating virtually all withdrawals from mineral entry.2 1 DEIS 3-101. 2 DEIS 2-3, 2-4 (13.1 million acres open to locatable mineral entry under both C2 and D), DEIS 2-11 (12.8 million acres open to fluid mineral leasing and development).	Section 102(a)(7) of FLPMA declares that it is the policy of the United States that management of the public lands be on the basis of “multiple use” and “sustained yield”. Section 103(c) of FLPMA defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people. FLPMA’s multiple use policy does not require that all uses be allowed on all areas of the public lands. Through the land use planning process, the BLM evaluates and chooses an appropriate balance of resource uses which involves tradeoffs between competing uses. Rather, the BLM has wide latitude to allocate the public lands to particular uses, and to employ the mechanism of land use allocation to protect for certain resource values, or, conversely, develop some resource values to the detriment of others, short of unnecessary and undue degradation. The National Environmental Policy Act is a procedural act that directs agencies to disclose the potential environmental effects of a proposal and its alternatives. It does not obligate an agency from selecting an alternative that is not environmentally preferable.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	19	FLPMA	104.0000.00	The Federal Land Policy and Management Act (FLPMA) requires that the Bureau "manage the public lands under principles of multiple use and sustained yield."69 Multiple use means "a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations . . . with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output."70 Multiple use management requires the Bureau to balance uses and "does not require [the Bureau] to prioritize development over other uses."71 Instead, "[d]evelopment is a possible use, which [the Bureau] must weigh against other possible uses-including conservation."72 Therefore, the Bureau's multiple use mandate "is not a sufficient reason to exclude more protective alternatives from consideration."73 "Sustained yield" means "the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use."74 69 43 U.S.C. § 1732(a). 70 Id. § 1702(c). 71 New Mexico ex rel. Richardson v. Bureau of Land Mgmt., 565 F.3d 683, 710 (10th Cir. 2009). 72 Id. 73 Id. 74 43 U.S.C. § 1702(h). The Bureau's preferred alternative, Alternative C2, does not meet these mandates. Despite purporting to emphasize "a blend of resource protection and resource development,"75 Alternative C2 emphasizes extractive development at the expense of resources and uses important to planning area Tribes. For example, "there would be 13,083,000 acres (100 percent of the decision area) open to locatable mineral development," as compared to current management, under which 52 percent of the decision area is open to locatable mineral development.76 Under Alternative C1, C2, and D, long-term adverse impacts on wildlife, fisheries, water and riparian resources, visual resources, and cultural resources could occur.77 In contrast, under Alternative B beneficial impacts on these resources are likely.78 The Bureau should not select an alternative that will result in long-term adverse impacts to these resources. Rather, the Bureau should reject alternatives that favor extractive resource development at the expense of the health and well-being of planning area Tribes and communities. 75 Draft RMP and EIS at 2-3. 76 Id. at 3-99. 77 Id. at 3-209. 78 Id. at 3-209.	Section 102(a)(7) of FLPMA declares that it is the policy of the United States that management of the public lands be on the basis of “multiple use” and “sustained yield”. Section 103(c) of FLPMA defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people. FLPMA’s multiple use policy does not require that all uses be allowed on all areas of the public lands. Through the land use planning process, the BLM evaluates and chooses an appropriate balance of resource uses which involves tradeoffs between competing uses. Rather, the BLM has wide latitude to allocate the public lands to particular uses, and to employ the mechanism of land use allocation to protect for certain resource values, or, conversely, develop some resource values to the detriment of others, short of unnecessary and undue degradation. The National Environmental Policy Act is a procedural act that directs agencies to disclose the potential environmental effects of a proposal and its alternatives. It does not prohibit an agency from selecting an alternative that is not environmentally preferable.
Gestring	Bonnie	Earthworks	None	146	6	FLPMA	104.0000.00	The Federal Land Policy and Management Act (FLPMA) directs that the public lands be managed in a manner, "that, where appropriate, will preserve and protect certain public lands in their natural condition."1 Yet, the preferred alternative (C-2), which proposes to open up virtually the entire planning area to mining and oil and gas development, prioritizes industrial development over all other land uses. 1 43 U.S.C. § 1701(a)(8). For example, the Area of Critical Environmental Concern (ACEC) evaluation report identifies numerous areas, where it is particularly appropriate to protect certain lands in their natural condition because these areas provide "crucial" habitat for salmon, Dall Sheep and caribou and contain water resources that are "rare" and "unique." Yet, the preferred alternative eliminates virtually every existing and proposed ACEC and RNAs, even though the RMP predicts that long term adverse impacts to fish and wildlife and their habitat, water resources and subsistence uses could occur under Alternative C-2 (see above). FLPMA makes it clear that the term "multiple-use" does not mean that every use is appropriate for every acre of public land, but rather that the Secretary can "mak[e] 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…."2 Yet, by opening 99% of these lands to development, and eliminating virtually all existing ACECs and RNA, the BLM fails to meet its multiple use mandate and severely limits, if not precludes, its mandate to provide sufficient latitude for periodic adjustments within the planning area for uses that require lands be maintained in a natural condition. 2 43 U.S.C. § 1702(c). Once these lands are opened to mineral entry, for example, the 1872 Mining Law allows individuals and companies to stake an unlimited number of mining claims and hold those claims indefinitely.3 Mining and other resource development can have significant impacts on water, soils, fish and wildlife and their habitat, and subsistence uses.4 Access to hunting, gathering and other subsistence uses are often restricted in areas surrounding active mining claims and along transportation routes.5 Exploration activities can have adverse impacts to land and water resources.6 The BLMs ability to protect subsistence uses, water quality, fish and wildlife and their habitat, wilderness characteristics and other important land uses that rely on natural conditions would be severely limited. 3 See, e.g., United States v. Shumway, 199 F.3d 1093, 1097-1102 (9th Cir. 1999) (providing an overview of the 1872 mining law and its history). 4 Ryan R. Wilson et. al., "Effects of roads on individual caribou movements during migrations." Biological Conservation, Volume 195, March 2016, Pages 2-8. Available: https://www.sciencedirect.com/science/article/abs/pii/S0006320715302147; Brenda L. Parlee et. al., "Undermining subsistence: Barren-ground caribou in a "tragedy of open access", Science Advances, February 2018, Vol. 4, no. 2. https://advances.sciencemag.org/content/advances/4/2/e1701611.full.pdf 5 Alaska Department of Fish and Game, Areas Closed To Hunting, Greens Creek Mine Closed Area, Online at https://www.adfg.alaska.gov/index.cfm?adfg=huntingmaps.closedtohunting&area=GreensCreekMineClosedArea 6 Kendra Zamzow and David M. Chambers, "Potential Impacts to Wetlands and Water Bodies Due to Mineral Exploration, Pebble Copper-Gold Prospect," Southwest Alaska, Environments. July 2019. https://www.mdpi.com/2076-3298/6/7/84/htm	Section 102(a)(7) of FLPMA declares that it is the policy of the United States that management of the public lands be on the basis of “multiple use” and “sustained yield”. Section 103(c) of FLPMA defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people. FLPMA’s multiple use policy does not require that all uses be allowed on all areas of the public lands. Through the land use planning process, the BLM evaluates and chooses an appropriate balance of resource uses which involves tradeoffs between competing uses. Rather, the BLM has wide latitude to allocate the public lands to particular uses, and to employ the mechanism of land use allocation to protect for certain resource values, or, conversely, develop some resource values to the detriment of others, short of unnecessary and undue degradation. The National Environmental Policy Act is a procedural act that directs agencies to disclose the potential environmental effects of a proposal and its alternatives. It does not obligate an agency from selecting an alternative that is not environmentally preferable.
Borell	Steven	Borell Consulting Services LLC	None	176	8	FLPMA	104.0000.00	The BLM is not a park or wildlife service and to comply with the multiple-use mandate of FLPMA and the no-more intent of ANILCA the RMP should not recommend any type of special land designation that isolates or otherwise restricts use and development of the lands. Alaska has 365 million acres, of which about 215 million are federal land. Of this federal land 165 million acres are already in some form of Congressionally designated federal park, preserve, refuge, restricted area, etc. These lands provide for all forms of conservation units. Making additional restricted designations to BLM lands then begs the question - Why is the BLM even needed if the lands are to be managed with such restrictions? 12. To comply with FLPMA and ANILCA the RMP should therefore not include any of the following: a. Areas of Critical Environmental Concern (ACECs); b. Right of Way Exclusion Areas; c. Core Caribou Calving Habitat; d. Dall Sheep Habitat Areas and Movement Corridors; e. Special Recreation Management Areas; f. Extensive Recreation Management Areas; g. Lands With Wilderness Characteristics; h. Wilderness Recommendations; i. New Wild and Scenic River Designations; j. Boreal Ecosystems Analysis for Conservation Networks (BEACONS); k. Any other restricted management area or similar land designation.	Section 102(a)(7) of FLPMA declares that it is the policy of the United States that management of the public lands be on the basis of “multiple use” and “sustained yield”. Section 103(c) of FLPMA defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people. FLPMA’s multiple use policy does not require that all uses be allowed on all areas of the public lands. Through the land use planning process, the BLM evaluates and chooses an appropriate balance of resource uses which involves tradeoffs between competing uses. Rather, the BLM has wide latitude to allocate the public lands to particular uses, and to employ the mechanism of land use allocation to protect for certain resource values, or, conversely, develop some resource values to the detriment of others, short of unnecessary and undue degradation.
Shon Jodwalis	Lisa	No organization name	None	197	7	FLPMA	104.0000.00	Throughout the Preferred Alternative, the need for protections for critical wildlife habitat and spectacular landscapes are given lip service by stating that ACECs or similar designations could be used to protect wildlife habitat, LWCs, and eligible WSRs. In virtually every planning action affecting the natural environment, protections provided by special designations or regulations are downgraded or eliminated. This does not meet the provisions of FLPMA's General Provisions, specifically Sec. 102 (a)(8) "the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use;"	BLM considered a full range of alternatives including no action and action alternatives containing a wide-ranging degree of emphasis on conservation. BLM analyzed the effects of the alternatives, including those on ACECs and special designations. The BLM's Proposed Plan, Alternative E, was derived from the range of Draft RMP/EIS alternatives based on this analysis.

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Crockett	Deantha	Alaska Miners Association	None	199	3	FLPMA	104.0000.00	The Federal Land Policy and Management Act (FLPMA) requires BLM lands be managed for multiple-use. AMA strongly objects to much of Alternative B and portions of C1 as they fail to meet the multiple use requirement of FLPMA. Alternatives B and C1 include several provisions that would allow future changes to the plan that would bypass public comment and formal rulemaking.	Section 102(a)(7) of FLPMA declares that it is the policy of the United States that management of the public lands be on the basis of "multiple use" and "sustained yield". Section 103(c) of FLPMA defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people. FLPMA's multiple use policy does not require that all uses be allowed on all areas of the public lands. Through the land use planning process, the BLM evaluates and chooses an appropriate balance of resource uses which involves tradeoffs between competing uses. Rather, the BLM has wide latitude to allocate the public lands to particular uses, and to employ the mechanism of land use allocation to protect for certain resource values, or, conversely, develop some resource values to the detriment of others, short of unnecessary and undue degradation.
Crockett	Deantha	Alaska Miners Association	None	199	32	FLPMA	104.0000.00	Furthermore, FLPMA Section Title V identifies ROWs as a "principal or major use" on BLM lands and does not envision a preemptive prohibition of ROWs on large areas of BLM lands. At least 6 ROW Exclusion Areas in Alternative B exceed 100,000 acres - including Jim River (303,000 acres), South Fork Koyukuk (415,000 acres), and Sethkokna (299,000 acres). Because they exceed 100,000 acres, proposed ROW exclusion areas are also subject to Congressional Review under FLPMA Section 202(e)(2), as they are "a management decision that excludes (that is, totally eliminates) one or more of the principal or major uses for two or more years with respect to a tract of land of one hundred thousand acres or more" (43 U.S.C. 1712).	ROW use is not completely eliminated under any of the Draft RMP/EIS alternatives. BLM considered a range of alternatives for lands and realty restrictions, including open areas, avoidance, and exclusion that differ under each alternative. BLM analyzed the environmental consequences of these lands and realty restrictions. The BLM's Alternative E, the Proposed Plan, was derived from the range Draft RMP/EIS alternatives based on this analysis.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	3	FLPMA	104.0000.00	BLM has selected Alternative C2 as the preferred alternative. Alternative C2 is essentially the same as Alternative D, with both tipped so strongly toward resource development and away from conservation and subsistence that violates the multiple use and sustained yield mandate of FLPMA (43 U.S.C. §§?1701(a)(7);?1702(c), 1712(c)). It is deeply concerning that BLM selected C2 as its preferred alternative despite the fact that it is one of the two alternatives that poses "the greatest potential for direct and indirect adverse effects on cultural resources."1 Cultural resources include the modern subsistence lifeways of contemporary tribal communities. Both C2 and D recommend eliminating virtually all withdrawals from mineral entry.2. Both alternatives eliminate all existing and proposed areas of critical environmental concern (ACECs), with C2 leaving only the Toolik Research Station.3Though Toolik is an important ACEC based on scientific legacy of ecological research, other ACECs that qualify under the BLM criteria should not be categorically dismissed in the CYRMP. 1 DEIS 3-101. 2 DEIS 2-3, 2-4 (13.1 million acres open to locatable mineral entry under both C2 and D), DEIS 2-11 (12.8 million acres open to fluid mineral leasing and development). 3 DEIS 2-3, 2-4 (D eliminates all ACECs; C2 preserves Toolik Research Situation, sometimes referred to as an ACEC, but this is really a research area rather than an ACEC).	BLM considered a full range of alternatives including no action and action alternatives containing a wide-ranging degree of emphasis on conservation. BLM analyzed the effects of the alternatives, including those on ACECs and special designations. The BLM's Proposed Plan, Alternative E, was derived from the range of Draft RMP/EIS alternatives based on this analysis.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	21	FLPMA	104.0000.00	For any lands for which PLO 5150 may be revoked, BLM should provide for a substitute withdrawal under FLPMA (43 U.S.C. §?1714) for subsistence purposes,25 or simply designate such lands as closed to alienation or mineral development leasing.26 BLM clearly recognizes the value and legitimacy of FLPMA withdrawals, as demonstrated by the two proposed under C-1 for Dall sheep and Caribou habitat conservation.27 25 This section of FLPMA allows the Interior Secretary to withdraw less than 5000 acres on its own, and 5000 or more acres for up to 20 years. In the latter case, the Secretary has to notify Congress and give Congress a chance to override the withdrawal. 26 See Bob Marshall v. Hodel, 852 F.2d 1223 (9th Cir. 1988); Joel Aurora, Note - Drill Here Not There: Petroleum Leasing and Conservation in Alaska's National Petroleum Reserve, 65 Hastings L.J. 1165 (2014) https://repository.uchastings.edu/hastings_law_journal/vol65/iss4/6 (distinguishing a Department of Interior decision not to lease from a formal withdrawal). 27 DEIS 2-2. Drawing from a comparative example is the Interior Secretary Salazar's 2012 withdrawal from new uranium mining claims (for up to twenty years) of more than one million acres of land near Grand Canyon National Park. In National Mining Association v. Zinke, 17-1286 (9thCir. Dec. 12, 2017), the court found that FLPMA and case law did not prevent the Secretary from withdrawing large tracts of land in the interest of preserving cultural and tribal resources. As applied to the PLO 5150, the withdrawal would be attributing a covenant to the corridor for the protection of federal subsistence priority and the conservation of habitat that supports the wild food economies among Alaska Native peoples. While laws governing land management in Alaska differ from those in the Lower 48, we believe that such a withdrawal would not be inconsistent with ANILCA Section 1326(a) (16 U.S.C. § 3213(a)). This section provides for administrative withdrawals up to than 5000 acres in Alaska and requires congressional notification for withdrawals of a greater size. We interpret ANILCA Section 1326 as applying only to "new" withdrawals, not additional withdrawals on land that has already been withdrawn. This interpretation is based on the following: * In Southeast Conference v. Vilsack, 684 F.Supp.2d 135 (D.D.C. 2010) the court found that a Forest Service plan setting aside an old growth reserve did not require Congressional permission under ANILCA. Rather, the land use designations were merely examples of the statutory responsibility to provide for multiple use and sustained yield principles of forest products and services. * In Tulare County v. Bush, 306 F.3d 1138 (D.C. Cir. 2002), petition denied, 317 F.3d 227 (D.C. Cir. 2003), the court found that the Giant Sequoia National Monument did not unlawfully withdraw National Forest land in violation of the National Forest Management Act, because the proclamation specifically stated that it did not revoke any existing withdrawal, reservation, or appropriation. * Cameron v. U.S., 252 U.S. 450 (1920) concerned the Grand Canyon National Monument, which was established in a previously existing forest reserve. The Supreme Court found that the Monument served as the "dominant" reserve, while the forest reserve remained in effect.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full), to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150 or any other PLOs and BLM is not considering a substitute withdrawal at this time.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	49	FLPMA	104.0000.00	The concept of sustained yield reinforces the stewardship mandate entrusted by Congress to the BLM. FLPMA Section 103 defines "sustained yield" as "the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use." The principles of multiple use and sustained yield do not elevate certain uses over others, yet the preferred alternative in the draft RMP demonstrates an unacceptable degree of preference for surface disturbing resource extraction activities over the conservation of vital fish and wildlife habitat, recreation and other non-extractive uses. To demonstrate this imbalance, please consider the following table showing the allocation assigned to various intensive development activities in comparison to lands managed as Areas of Environmental Concern (ACECs) as a percentage of the decision area by alternative. We use ACECs as a reference point here since this designation provides a mechanism to safeguard resource values and uses such as wildlife, fisheries, water resources, subsistence, and scenic values. See Attached comment letter for resource use table.The table above clearly demonstrates that the BLM's preferred alternative, C2, fails to meet the agency's multiple-use and sustained yield mandate as required by FLPMA. Alternatives C1 and D are also heavily skewed towards resource development. We feel strongly that Alternatives A and B are the only balanced alternatives in the range. TRCP recommends that the BLM select Alternative B for the proposed alternative in the proposed RMP, with a few key modifications, including the retention of the public land withdrawals discussed below as currently managed in Alternative A.	BLM considered a full range of alternatives including no action and action alternatives containing a wide-ranging degree of emphasis on conservation. BLM analyzed the effects of the alternatives, including those on ACECs and special designations. The BLM's Proposed Plan, Alternative E, was derived from the range of Draft RMP/EIS alternatives based on this analysis.

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Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	23	FLPMA	104.0000.00	We feel had the BLM, USFWS, State of Alaska and Tribal groups been able to sit down with the planning map to take a more thoughtful and strategic approach to decide which areas should be protected (to benefit BLM, FWS and Tribal and subsistence resources and uses) and which areas were appropriate for more intensive development, the BLM might have achieved some of their land use planning obligations outlined below (H-1601¬1 and FLPMA), as well as resolved inconsistencies between the DEIS and adjacent land management plans to allow the BLM to meet their multiple use and sustainable yield mission. · "As required by FLPMA, Section 202(c)(9) involves on-going communication between BLM managers and state, local, and Tribal governments to ensure that the BLM considers pertinent provisions of non-BLM plans in managing public lands; seeks to resolve inconsistencies between such plans..." [emphasis added] · Collaboration is a process in which interested parties, often with widely varied interests, work together to seek solutions with broad support for managing public and other lands. Collaboration mandates methods, not outcomes; and does not imply that parties will achieve consensus. [emphasis added]	BLM had multiple cooperating agency meetings and small resource-based meetings with cooperators.
Fox	Jimmy	U.S. Fish and Wildlife Service	Kanuti National Wildlife Refuge	207	73	FLPMA	104.0000.00	The following was extracted from the Solicitor Opinion written by H.C. Tompkins, Memorandum M-37039, USDOI, Office of the Solicitor, 2016: Section 202 of FLPMA vests the Department with land use planning authority and provides that such planning shall "use and observe the principles of multiple use and sustained yield set forth in this and other applicable laws. Land management based on principles of multiple use and sustained yield involves balancing competing interests in public lands between current and future generations; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output. The principle of "multiple use" therefore requires consideration of both the interests of current and future generations; the definition expressly mentions the future twice and prohibits permanent impairment to the productivity of the land and the quality of the environment. It also provides for consideration of development uses, e.g., "range, timber, minerals," as well as recreational uses and conservation, e.g., "watershed, wildlife and fish, and natural scenic, scientific and historical values." By creating such a bold, forward-looking stewardship mandate, Congress granted the BLM broad discretion to chart a course for public lands that accounts for development, conservation, and long¬term management. The phrase "sustained yield" reinforces the broad stewardship mandate under which the BLM manages federal lands. Under FLPMA, "'sustained yield' means the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use." The term cautions against managing public lands for the short-term expediencies of the day, and, as the Supreme Court has explained, "requires the BLM to control depleting uses over time, so as to ensure a high level of valuable uses in the future." Because the term "sustained yield" expressly incorporates principles of "multiple use," its reference to perpetually maintained "output" accounts for impacts to both developable resources, such as timber for harvest, and environmental resources, such as watersheds and wildlife. Principles of sustained yield, like principles of multiple use, do not elevate certain uses over others, but rather, delegate discretion to the BLM to manage public lands in the best interests of the American people today, tomorrow, and into the future.	BLM considered a full range of alternatives including no action and action alternatives containing a wide-ranging degree of emphasis on conservation. BLM analyzed the effects of the alternatives, including those on ACECs and special designations. The BLM's Proposed Plan, Alternative E, was derived from the range of Draft RMP/EIS alternatives based on this analysis.
Gestring	Bonnie	Earthworks	None	146	79	Fluid leasables	209.0302.00	We are surprised at the limited number of Fluid Mineral Leasing Standard Operating Procedures (SOPs) and Leasing Stipulations (Stips) contained in the DEIS compared to what is required in other Alaska BLM land use planning documents. The Central Yukon Fluid Mineral SOPs and Stips need to be expanded to incorporate all relevant oil, gas, and mining requirements utilized in comparable documents, as described in Section (a) Section (b) contains additional comments on the Central Yukon Fluid Mineral SOPs and Stips.	Little to no fluid mineral development is expected in the CYFO planning area, so the SOPs and stipulations are reduced compared to areas with anticipated high levels of development.
Gestring	Bonnie	Earthworks	None	146	81	Fluid leasables	209.0302.00	Section F.3.1, Fluid Mineral Leasing Standard Operating Procedures (MIN-LEA) is less than one page long and Section F.3.2, Fluid Mineral Leasing Stipulations, contains a short table 8 pages in length. In contrast, the Arctic National Wildlife Refuge Coastal Plain Oil and Gas Leasing FEIS78 Table 2-3 is 39 pages in length with detailed Lease Stipulations (14 pp.) and Required Operating Procedures (ROPs, 25 pp., similar to SOPs in the Central Yukon RMP). While not all of the Stips and ROPs in this document apply to industrial activities in the Central Yukon RMP, many if not most of them would apply. 78 Coastal Plain Oil and Gas Leasing Program Environment Impact Statement: Final, U.S. Department of the Interior Bureau of Land Management, September 2019 (pp. 2-5 - 2-43). Retrieved from https://eplanning.blm.gov/eplanning-ui/project/102555/570 The Coastal Plain FEIS includes a number of Stip and ROP topics not addressed at all or addressed inadequately in the Central Yukon RMP. These topics include Stips and ROPs for: * caribou habitat. * detailed waste prevention, handling, disposal, spills, and public safety, * water used in industrial activities, * winter overland use and seismic work, * oil and gas exploration and facilities development including gravel pads, roads, airstrips, and pipelines, * use of aircraft, * field abandonment, * subsistence consultation, * orientation programs, and * summer vehicle access. The detailed Stips and ROPs in Table 2-3 of the Coastal Plain FEIS should be reviewed one by one, and all that may be applicable to potential mining and fluid mineral (i.e., oil, liquified gas, natural gas liquids, geothermal liquids, and coal bed natural gas) leasing and facility operations in the Central Yukon RMP should be included in the Central Yukon FEIS. Some of the Table 2-3 Stips and ROPs for the Coastal Plain may require modifications so they apply to mining operations. The National Petroleum Reserve - Alaska Integrated Activity Plan (IAP) FEIS79 Stips (Table 2-3) and ROPs (Tables 2-2 and 2-3) likewise contain far more topics and detailed specifics than the Central Yukon DEIS. The IAP's Table 2-3 contains 21 pages of Stips and additional ROPs that apply in Select Biologically Sensitive Areas and Table 2-2 contains 26 pages of ROPs. As with the Coastal Plain FEIS, not all of the IAP's Stips and ROPs apply to the lands in the Central Yukon RMP though most of them would. The Stips and ROPs of the IAP also should be reviewed one by one, and all that may be applicable to potential mining and fluid mineral leasing and facility operations in the Central Yukon RMP should be included in the Central Yukon RMP. 79 National Petroleum Reserve in Alaska Integrated Activity Plan and Environmental Impact Statement: Final, U.S. Department of the Interior Bureau of Land Management, June 2020 (pp. 2-11 - 2-57). Retrieved from https://eplanning.blm.gov/eplanning-ui/project/117408/570	Little to no fluid mineral development is expected in the CYFO planning area, so the SOPs and stipulations are reduced compared to areas with anticipated high levels of development.
Gestring	Bonnie	Earthworks	None	146	82	Fluid leasables	209.0302.00	BLM should convert mitigation measures that seek to protect resources to stipulations attached to any oil and gas and mineral leases to assure that they are enforceable, especially when they have the potential to impair the value of a lease. For instance, to protect water resources effectively it may be necessary to impose setbacks, potentially as a SOP. A company interested in leasable minerals, however, could argue that these setbacks would make the lease less valuable and therefore should not be imposed. Instead, BLM should include this type of mitigation measure as a lease stipulation to assure that it can be imposed.	Lease stipulations are applied on the lease level, not the RMP level. Mitigation measures can be applied as lease stipulations on lease level NEPA.
Crockett	Deantha	Alaska Miners Association	None	199	71	Fluid leasables	209.0302.00	F.2.13 Hazardous Materials and Health and Human Safety (HAZMAT) SOP HAZMAT-1 through 4 are familiar issues that don't require comment. SOP HAZMAT-5 states that storage of petroleum, oil, and lubricants equal to or greater than 55 gallons at any site will require secondary containment. This should be changed to 660 gallons to be the same as EPA and ADEC requirements, or the SOP should be deleted as this is already regulated by these agencies.	BLM reviewed SOP HAZMAT-5 for consistency with EPA and ADEC requirements, however the decision was made that BLM will not modify this SOP. Secondary containment will be required for storage of petroleum, oil, and lubricants equal to or greater than 55 gallons on BLM lands.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Crockett	Deantha	Alaska Miners Association	None	199	72	Fluid leasables	209.0302.00	SOP HAZMAT 6&7 requiring a Spill Prevention, Control, and Countermeasure Plan (SPCC Plan) are already required by ADEC so duplicative.	BLM has reviewed the SOPs and made revisions where appropriate. Some duplicative SOPs are maintained in the document in order to ensure the integrity of analysis should regulations change.
Crockett	Deantha	Alaska Miners Association	None	199	73	Fluid leasables	209.0302.00	SOP HAZMAT-8 just adds BLM AO to the list to notify in the event of a reportable spill SOP HAZMAT-9 No comments. SOP HAZMAT-10 requires that no fueling operation will be allowed within a riparian zone or within 100 feet of a water body. It's not uncommon to have pumps located within this area to facilitate water control and those pumps need to be refueled occasionally.	SOP HAZMAT-10 allows exceptions for the fueling of watercraft, water pumps, and aircraft within the riparian zone or within 100 feet of a water body.
Crockett	Deantha	Alaska Miners Association	None	199	74	Fluid leasables	209.0302.00	SOP HAZMAT-11 requires that a hazardous materials emergency contingency plan will be prepared and implemented before transportation, storage, or use of fuel or hazardous substances. This is new and seems mostly duplicative if you have a SPCC Plan and should be deleted.	BLM has reviewed the SOPs and made revisions where appropriate. Some duplicative SOPs are maintained in the document in order to ensure the integrity of analysis should regulations change. An SPCC plan would be acceptable to meet the requirements of SOP HAZMAT-11.
Crockett	Deantha	Alaska Miners Association	None	199	83	Fluid leasables	209.0302.00	N.3 Fluid Leasables. This section and Map N-3 present "potential" for fluid leasable minerals. The text refers to 6 plays evaluated in a recent USGS assessment of oil and gas resources (Houseknecht and others, 2020). Map N-3, however indicates "high/low/ very low" potential areas that are not defined in any way and are referenced only to a 2017 BLM GIS system.	Details regarding the determination of potential have been added to the document.
Thorne	Rich	No organization name	None	5	11	GIS data and analysis	103.0600.00	Petty irritant - all your maps label Bettles as located at Old Bettles, an abandoned townsite 6 miles downriver. Old Bettles should be labelled as such, and Bettles located adjacent to and immediately south of Evansville. Old Bettles lost its last resident in 1996. The current Bettles was founded in 1944 and incorporated as a city in 1985. Would you please change your maps to correct this error?	We edited the Proposed RMP/Final EIS maps to correctly display Bettles/Evansville.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	35	GIS data and analysis	103.0600.00	Much of the information used by governments and NGOs to determine species of concern comes from monitoring efforts such as the continental breeding bird survey. We support BLMs continued monitoring of landbirds/songbirds/shorebirds by participating in the breeding bird survey, and recommend a formal commitment specifically for this monitoring in a finalized Table 2-4 in the RMP/FEIS. We note that Appendix A, Map 3.13 documents this participation, but inadvertently left out three USFWS breeding bird survey routes which have a long history of data in the western portion of the CYRMP area: Ruby Road, Galena, and Bear (Whakatna) Creek. These should be added to the map.	We added the breeding bird survey locations.
Cole	Jeanie	Alaskans for Wildlife	None	142	3	GIS data and analysis	103.0600.00	We recommend including a map showing State of Alaska priority selections in the Utility Corridor because acreage top-filed by the state and acres identified as a number one priority for conveyance by the State are used as impact indicators (Appendix M 5-14). Of these State selected lands, 267,880 are identified as a Priority 1 by the State and are expected to be conveyed to the State within 10 years of the RMP decision. Approximately 170,915 acres of State-selected lands are identified as Priority 2 through 4 (Appendix S-24). Although total top filed lands are displayed on Map 3.20, the map does not indicate priority 1 top filings and we did not find such a map in other sections of the document.	We added State of Alaska priority levels to the State- and Native-Selected Lands, and State Top-Filed Lands in the Proposed RMP/Final EIS map.
Kenning	Erik	Arctic Slope Regional Corporation	None	187	9	GIS data and analysis	103.0600.00	In the past, ASRC engaged in a number of land exchanges with the federal government. BLM should examine IC 1336 and PAT 50-87-0165 in townships 009S011W, 009S012W, 009S013W, 009S015W. BLM has created confusion as to the ownership of these lands. In the maps related to this EIS, they are shown as BLM lands. Reviewing the land status of these lands on the public BLM Spatial Data Management System (SDMS), the default layer in the interactive map shows these lands as "Native Lands" which in this case would be ASRC lands. The lands on the North Slope encompassed by the Draft CY RMP EIS owned by BLM are very small compared to the surrounding ASRC and State lands. This confused representation of BLM lands creates a large issue for us as the public reviews inconsistent data provided by the BLM. We ask that BLM review their own records and provide consistent information to the public.	We reviewed the land administration in townships 009S011W, 009S012W, 009S013W, 009S015W and corrected the GIS data and maps in the preferred alternative.
Crockett	Deantha	Alaska Miners Association	None	199	95	GIS data and analysis	103.0600.00	Most maps in the EIS contain the disclaimers: "no warranty is made by the BLM as to the accuracy, reliability or completeness of these data"; "data were compiled from various sources"; "may not meet National Map Accuracy Standards", and "may be updated without notification". Yet these are the SOLE products upon which management decisions are being based. Most maps are sourced to "BLM GIS 2017. In the references this is listed as: BLM GIS (U.S. Bureau of Land Management Geographic Information Systems). 2017. GIS data used in the Central Yukon RMP alternatives, affected environment and impact analysis. Last edit date June 2020. Fairbanks, Alaska. This is not an appropriate bibliographic reference. The GIS is not available to the public, does not document the layers or structure of data held, disclose the authorship or primary sources of any of the data layers, and is an ever-changing entity (i.e., the "last edited June 2020 note"). The reader, therefore, has no idea of the quality, quantity or source of data available or used at the time any specific map or "analysis" was produced.	The disclaimer displayed on the CYRMP Draft RMP/EIS maps is a standard BLM map disclaimer. The CYRMP Draft RMP/EIS GIS data were and are available to the public, posted on ePlanning. The GIS data included land status, the alternatives resources, resources uses, and special designations, the affected environment, the reasonably foreseeable development scenario, and Boreal Ecosystems Analysis for Conservation Networks (BEACONS) conservation networks. An Excel “Read My First” file with the GIS feature name, description, and source was published with the data. When data came from another agency, this was noted in the Read Me First file with the corresponding data URL. GIS data used Federal Geographic Data Committee metadata to document the data.
Sam	Susie	No organization name	None	28	3	Government-to-Government Consultation	103.0800.00	The Biden administration has re-authorized Executive Order 13175 that requires consultation and coordination with tribes. The Louden Tribe expects to be approved as a cooperating agency as soon as possible, and Louden Tribe requests that our sovereign tribes wishes for protection of important watershed be approved in the next planned version.	BLM appreciates the importance of the Louden Tribe's knowledge. Though Louden Tribe is not currently an official cooperating agency, BLM has and will continue to engage cooperatively with the tribe through this process. While the formal period for consideration and incorporation of cooperating agency comments into the Draft RMP/EIS is over, BLM will continue to consider Louden Tribe's input and is open to formally establishing cooperating agency status at any time.
Green	Charlie	Louden Tribal Council	None	35	3	Government-to-Government Consultation	103.0800.00	Additionally, BLM has been talking a lot about ANILCA 810. Why don't you say a "We are Required by Law to Ask for Your Input about how the Proposed Plan would affect your subsistence rights and access". If all this land is opened to mining, oil and gas development - over time as development creeps in, our subsistence resources and our whole way of life will be eliminated. I've heard BLM say that there is 'low mineral potential' so we don't need to worry about new mining. But this plan may last 30 years, and we have no idea what kind of minerals might be valuable in 30 years. BLM's job should be to take conservative and cautionary approach - to assure the sustained yield of this land forever. Opening all the land to extractive development is not cautionary and it's not multiple use. BLM needs to re-do this plan, listen to our traditional knowledge and protect these watersheds Louden and Koyukuk Tribe have nominated.	The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes. The BLM appropriately evaluated reasonable range of alternatives, which included taking into account the Reasonable Foreseeable Future Development Scenario (**Appendix N**) and considering nominated ACECs for designation. For more detail on the consideration of ACECs for designation see the final ACEC Report on the Application of Relevance and Importance Criteria. (https://eplanning.blm.gov/public_projects/lup/35315/66005/71748/2015-11-24_CYRMP_ACEC-Rpt_final_508_reduced.pdf).
Long	Becky	No organization name	None	52	2	Government-to-Government Consultation	103.0800.00	Whatever is decided from this process, consultation with tribes must happen. BLM must do its actions based on the terms of the tribe. And the priority must be to ensure subsistence rights and preservation of cultural resources and properties.	The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes. BLM also remains committed to complying with all relevant laws, including the NHPA and ANILCA.

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Buss	Jordan	No organization name	None	54	2	Government-to-Government Consultation	103.0800.00	Ensure that consultation will take place with all tribes living within the planning area, on the tribes' own terms prior to carrying out activities that would affect them. The importance of protecting and upholding subsistence rights and cultural property throughout the planning area cannot be overemphasized. Peoples living within the planning area have a right to retain the ability to subsist off the lands and waters of the planning area.	The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes. BLM also remains committed to complying with all relevant laws, including the NHPA and ANILCA.
Captain	Elizabeth	Ruby Tribal Council	None	72	2	Government-to-Government Consultation	103.0800.00	Ruby Tribes would like to work with BLM planners and resources staff to identify land areas that are important to Ruby tribal members and develop a plan to manage lands important to Ruby in a collaborative manner. Ruby is interested in subjects pertaining to placer mining in the Ruby-Poorman mining district, the Ruby-Poorman road, subsistence use areas, water quality in local watersheds, energy (including warm springs), wildland fire, recreation management and economic opportunities. Ruby Tribal members possess local ecological knowledge on resources and subsistence use areas that can be important to resources staff managing public lands around the community of Ruby, especially with regard to permitting activities in the Ruby area on BLM managed lands.	The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes and engaging in opportunities for tribal co-stewardship. BLM also remains committed to complying with all relevant laws, including the NHPA and ANILCA.
Captain	Elizabeth	Ruby Tribal Council	None	72	3	Government-to-Government Consultation	103.0800.00	BLM's July 2016 Central Yukon Rapid Ecoregional Assessment listed substantial data gaps in the planning area. Tribes like Ruby inside or adjacent to the planning area possess local knowledge of the land and resources relevant to the principles of multiple use and sustain yield. Tribal governments of affected communities should be provided the status of cooperating agencies in the federal environmental review process for public land planning and allow them to be involved in planning actions. The planning process should identify historic and contemporary customary use areas and conserve resources that support Tribal wild food economies.	BLM appreciates the importance of the Ruby Tribe's knowledge. The Ruby Tribe is currently an official cooperating agency, and BLM will continue to engage cooperatively with the Tribe through this process. While the formal period for consideration and incorporation of cooperating agency comments into the Draft RMP/EIS is over, BLM will continue to consider Ruby Tribe's input.
Captain	Elizabeth	Ruby Tribal Council	None	72	4	Government-to-Government Consultation	103.0800.00	As a result of new federal executive on improving relationships with Indigenous Peoples and Alaska Native Tribes, BLM should extend the timeline of the resource management plan. An extension should result in a supplemental resource management plan that includes integration of comments provided in this comment period, along with supplemental demographic and land resources data from affected Tribes. Additionally, the agency should create a formal advisory role with affected Tribes to consult on opportunities for co-management of lands that are important to each individual federally recognized Tribes. That relationship is one that BLM would benefit if structured to endure throughout the life of the plan for the existing, Bering Sea and Interior Tribal Commission. The supplemental plan should identify and designate conservation measures requested by Tribes and other resource managing agencies and enable an appropriate level of Tribal co-management of subsistence use areas. If requested by Tribes, BLM needs to work with the Tribal Commission toward the development of comanagement options for lands that are important to Tribes. By working closely with affected communities, the Tribal Commission and individual Tribes, the agency will be able to render a more appropriate alternative that meets its multiple use mandate. BLM should create a supplemental draft plan by integrating comments: * Incorporating Tribal recommendations, including reconsidering and conserving significant acreage in ACECs; * Retaining ANCSA 17 (d)(1) public land orders in ACECs and in connectivity corridors; * Prioritizing conservation of significant acreage to manage for wilderness characteristics and Tribes' food security and food sovereignty; * Increasing the amount of right-of-way exclusion and avoidance areas to protect essential connectivity corridors, high value watersheds, wild food habitat; and, * Include the consideration of co-management options developed in consultation with the Tribal Commission and Tribes.	Input received from this comment period has been considered and incorporated into the Proposed RMP/Final EIS, and has helped shape the Proposed Plan, Alternative E. Changes relevant to this comment and many others include consultation, Traditional Cultural Properties, and designation of tribally nominated ACECs, and making no recommendation for revocation of Public Land Orders. The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including consideration of co-management options developed in consultation with the Tribal Commission and tribes.
Raynolds	Martha	No organization name	None	74	1	Government-to-Government Consultation	103.0800.00	The CYRMP should set up a cooperative management process whereby all tribal entities in the area have real power to influence management decisions. This should not just be "consultation" during infrequent management plan revisions. It is especially important that people living in remote villages have a voice, and not just through their ANCSA corporations. The leaders of those corporations often live in big cities and are not directly affected by the results of land management decisions. Because this plan is so long and difficult to digest, you cannot expect people living in small communities to have the time to read or understand this document. Only by continually consulting with them on specific actions will they actually be able to meaningfully participate in the management of the lands on which they depend for their livelihood.	The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including consideration of co-management options developed in consultation with the Tribal Commission and tribes.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	65	Government-to-Government Consultation	103.0800.00	We were impressed that on the front end of the planning process, during scoping in 2013, and through development of preliminary alternatives in 2016, BLM reached out to neighboring land managing agencies, Tribes, and the State of Alaska, just as FLPMA and the Planning Handbook require. However, our review led us to conclude that completion of the RMP/DEIS during 2017-2020 discounted a significant amount of prior input from adjacent land management agencies, Tribes, and Villages. This is highly concerning to the Alaska Chapter and we believe it must be corrected in creation of the Final RMP/FEIS. We remind BLM that Section 202(c)(9) of FLPMA requires: "... on-going communication between BLM managers and state, local, and Tribal governments to ensure that the BLM considers pertinent provisions of non-BLM plans in managing public lands; seeks to resolve inconsistencies between such plans…." We know that communications occurred, but we fail to see where the RMP/DEIS evidences sincere efforts to consider neighboring land management goals and objectives, nor efforts to resolve inconsistencies where these plans conflict. The Alaska Chapter did not find anywhere in the RMP/DEIS where the Comprehensive Conservation Plans for Koyukuk, Nowitna, Kanuti, or Selawik NWRs were mentioned or cited. We did not find anywhere in the RMP/DEIS where the Gates of the Arctic National Park General Management Plan was referenced. We did not find any instance where an Alaska DNR land management plan was cited. No ANSCA Corporation or Tribal land management plans were cited. We found only two instances where ADFG research was cited, but no wildlife or fish management plans were cited. Regarding coordination with these other entities we found only the following disclaimer: "The CYRMP does not change land use management for National Wildlife Refuge lands, National Park Service lands, or their subsurface lands. Planning decisions and descriptions in the RMP will not apply to private lands, lands conveyed through ANCSA, or lands conveyed to the State of Alaska through the Alaska Statehood Act" (USBLM 2020 CYRMP pg. 1-2). Better coordination of the RMP goals with all these neighbors is needed, particularly in the areas of watershed impacts and integrity and connectivity corridors. The final RMP/DIES must show efforts to resolve these inconsistencies by selection of a more balanced alternative.	From alternatives development through cooperating agency and public commenting periods, input received from other agencies, tribes, and the State of Alaska as well as pertinent provisions of non-BLM plans have been considered and incorporated throughout the CYRMP planning process (see **Appendix D** for a list of these plans). The Proposed Plan, Alternative E, was developed in consideration of these concerns.
Little	Suzanne	The Pew Charitable Trusts	None	98	1	Government-to-Government Consultation	103.0800.00	Tribal communities in the planning area may possess the best knowledge of the land and resources. Tribal governments should be provided the status of cooperating agencies in the NEPA process to enable their contribution of intrinsic knowledge about the land and resources to help guide appropriate planning actions. Plan decisions should identify and conserve Tribal contemporary and traditional land domains and historic and contemporary customary use areas. BLM's plan to open 99% of BLM-managed land to extractive development is an unacceptable alternative that not only ignores input from Tribes but fails to meet the agency's multiple use mandate. Consultation with federally recognized tribes is more than public involvement and outreach. Because the draft plan phase is the last time the Bureau will accept formal comment before the proposed RMP is issued, and because communities of the region obtain a very high percentage of food from this land and its watersheds, it is important that the agency improve its communication with Tribes in the planning areas, as well as improve its government to government consultation and cooperating agency relationships.	The Proposed Plan, Alternative E, was developed in consideration of these concerns. BLM appreciates the importance of tribal communities' knowledge. For any interested tribes that are not currently an official cooperating agency, BLM will continue to engage cooperatively with them through this process. While the formal period for consideration and incorporation of cooperating agency comments into the Draft RMP/EIS is over, BLM will continue to consider tribal input and is open to formally establishing cooperating agency status at any time.
Little	Suzanne	The Pew Charitable Trusts	None	98	7	Government-to-Government Consultation	103.0800.00	BLM Alaska failed to provide a Tribal Liaison for outreach and basic communication to Tribes from the Notice of Intent for Scoping in 2013 through the Draft RMP for the Central Yukon Resource Management Plan. Without a functioning Tribal Liaison in Alaska, it has burdened BLM's planning staff with the full responsibility of Tribal outreach, despite little formal training. Many Tribal communities had little to no communication from BLM between 2018 and late 2020, despite the critical interest of Tribes in the millions of acres of lands impacted by the BLM planning process. With 229 sovereign Tribal governments in Alaska, BLM Alaska should employ one Tribal Liaison for every ten Tribes in active Resource Management Planning areas.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input. Consideration of agency staffing and resources is beyond the scope of the Central Yukon RMP.

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Little	Suzanne	The Pew Charitable Trusts	None	98	8	Government-to-Government Consultation	103.0800.00	Requirements under Secretarial Order 3355 for fast-tracking and streamlining National Environmental Policy Act's (NEPA) Environmental Impact Statements (EIS) had the effect of severely limiting consultation and cooperating agency reviews. Only 10 days were allowed for cooperating agency review of the pre-public Central Yukon Draft RMP. Consultation and cooperating agency review timelines must be lengthened to allow reasonable meeting timelines. Secretarial Order 3355 does not abrogate the agency's lawful obligations to Tribes. Going forward, at least three weeks should be given to cooperating agencies for comment on pre-public drafts.	BLM has and will comply with existing Secretarial Order or CEQ regulations related to NEPA that prescribe timelines. BLM understands the difficulty associated with short schedules.
Little	Suzanne	The Pew Charitable Trusts	None	98	9	Government-to-Government Consultation	103.0800.00	In July of 2019, 20 cooperating agency Tribes in the Bering Sea-Western Interior planning area (five of which have traditionally used lands in the Central Yukon planning area) formed the Bering Sea and Interior Tribal Commission, or Tribal Commission, to work in unity to protect the traditional way of life by advocating for land use planning processes and natural resource management decisions that reflect the Tribal Commission's voices and values. At its meeting of December 2019, the Tribal Commission invited Central Yukon planning area Tribes to join the Tribal Commission. The Tribal Commission has 33 member Tribes, 13 of which have traditional lands and areas inside the Central Yukon planning area and intends to be in existence over the life of the Central Yukon and Bering Sea-Western Interior plans. Considering the Bureau's obligations to recognize and respect tribal sovereignty and self-determination, we encourage the BLM to focus on communication with the Tribal Commission and foster good faith efforts its Tribal members employ as a collective to provide input to the agency in the planning process. Additionally, we recommend BLM consider formally designating the Tribal Commission as an advisory body to BLM for the life of the Central Yukon plan.	The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including consideration of input from the Tribal Commission. While the formal period for consideration and incorporation of cooperating agency comments into the Draft RMP/EIS is over, BLM will continue to consider tribal input and is open to formally establishing cooperating agency status at any time.
Little	Suzanne	The Pew Charitable Trusts	None	98	10	Government-to-Government Consultation	103.0800.00	On January 26, 2021, the Biden Administration issued a memorandum reaffirming Executive Order (EO) 13175 and the administration's commitment to American Indian and Alaska Native Tribal Nations and directing the heads of executive departments and agencies to reinvigorate the consultation process with Indian Tribes. History demonstrates that we best serve Native American people when Tribal governments are empowered to lead their communities, and when Federal officials speak with and listen to Tribal leaders in formulating Federal policy that affects Tribal Nations." Less than 1% of land in BLM's Preferred Alternative contained protections from extractive development, nor did it provide conservation elements requested by Tribes. BLM should employ a robust effort to consult with the Bering Sea and Interior Tribal Commission and impacted Tribes, with the goal of issuing a supplemental draft. This will also help to achieve goals outlined under EO 13175.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input. Input received from tribes has been considered and incorporated into the Proposed RMP/Final EIS, and has helped shape the Proposed Plan, Alternative E. Changes relevant to this input include those regarding consultation, Traditional Cultural Properties, designation of tribally nominated ACECs, and making no recommendation for the revocation of Public Land Orders.
Little	Suzanne	The Pew Charitable Trusts	None	98	11	Government-to-Government Consultation	103.0800.00	The purpose of tribal consultation under the Federal Land Policy Management Act (FLPMA) and NEPA is to identify potential conflicts between proposed actions and tribal interests, and to avoid, reduce or resolve impacts through the planning process. The BLM Handbook 1780-1 Improving and Sustaining BLM-Tribal Relations, states that "Tribal consultation must take place at key points in the NEPA process," including "when an assessment of impacts is projected", "at the Final EIS" and, "before the final decision is rendered". The fast-tracked, accelerated schedule under Secretarial Order 3355 should not have abrogated the agency responsibilities and lawful consultation requirements.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input. BLM has engaged in and intends to continue to engage in consultation at key points in the NEPA process.
Williams	Frank	No organization name	None	101	13	Government-to-Government Consultation	103.0800.00	Ensure that consultation will take place with all tribes living within the planning area, on the tribes' own terms prior to carrying out activities that would affect them. The importance of protecting and upholding subsistence rights and cultural property throughout the planning area cannot be overemphasized. Peoples living within the planning area have a right to retain the ability to subsist off the lands and waters of the planning area.	The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes. BLM also remains committed to complying with all relevant laws, including the NHPA and ANILCA.
Costello	Naomi	Evansville Tribal Council	None	107	16	Government-to-Government Consultation	103.0800.00	Like all entities struggling to operate in the COVID-19 pandemic, BLM has sought to continue its operations and proceed with the EIS process in spite of barriers posed by federal travel and health restrictions. Problematically, BLM has not been able to meet the public hearing requirements under NEPA regulations32 and ANILCA 810 for the draft CYRMP Here, the required hearings under public involvement and tribal consultation were not held in the affected villages where residents were occasionally under quarantine and imposed travel restrictions brought on by the unique COVID pandemic. While BLM made efforts to hold substitute open house and public hearings virtually, many rural permanent residents in the villages do not possess adequate digital hardware or Internet access to participate in virtual meetings. Evansville's Tribal Office does not have adequate internet access to participate in virtual meetings. Even telephonic access is compromised in some rural communities and was exemplified at the Feb. 2, 2021 hearing, when Jessie David was able to establish only a poor connection to the hearing by using a paid calling card. She, like many others in rural villages, do not have long-distance land-line phone service to dial in. In a separate case of different miscommunication, Stevens Village was not aware of the meeting that was set up to include them. Probably the largest constraint on effective public and tribal outreach is the fact that Tribal communities did not have access to a printed copy of the draft RMP, or insufficient internet service to download from the BLM e-planning platform. For these and other related reasons, BLM should pause the implementation of the RMP process until adequate hearings can be held that genuinely take into account the broader concerns and perceived impacts by affected tribal governments. An advantage for pausing would allow BLM planners and resources staff to consult over the series of formal maps that explain many of the nuances of the RMP. 32 See BLM Manual H-1790-1 - NATIONAL ENVIRONMENTAL POLICY ACT HANDBOOK (2008) 63: "Public meetings or hearings are required when there may be substantial environmental controversy concerning the environmental effects of the proposed action, a substantial interest in holding the meeting, or a request for a meeting by another agency with jurisdiction over the action (40 CFR 1506.6 (c))." Section 810(a) of ANILCA prohibits agencies from making decisions that would significantly restrict subsistence uses without "giv[ing] notice of, and hold[ing], a hearing in the vicinity of the area involved."	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input on cultural resources and ANICLA Section 810. The public hearings on January 28 through February 4, 2021, were held with adequate advance notice, and input from these meetings was considered during the planning process.
Costello	Naomi	Evansville Tribal Council	None	107	19	Government-to-Government Consultation	103.0800.00	Some, but not all affected tribes have participated in the planning process as cooperating agencies and that relationship should be preserved in the implementation of the plan and expanded to all affected tribal governments and tribal resources expertise with affiliated tribal organizations It is essential that BLM make multiple efforts to include tribes as cooperating agencies so that the public land planning process can benefit from their agency expertise. In particular, we wish to avoid a repeat of the situation Louden experienced-it expressed a desire to serve as a cooperating agency, but this was never achieved prior to the publication of the DEIS. Agency expertise possessed by Tribal governments include traditional knowledge on ethnogeography, ethnohistory, community demographics, tribal governance, cultural resources, customary and traditional use areas, human health impacts, climate change observations and culturally relevant knowledge about lands and resources that support their wild food, hunter and gathering economies. Given the communication challenges of sharing knowledge and expertise between urban agency offices and remote villages, it is incumbent on BLM to ensure an ongoing dialogue with Tribes over the management of public lands that overlap with customary and traditional use areas.	BLM appreciates the importance of tribal communities' knowledge. For any interested tribes that are not currently an official cooperating agency, BLM will continue to engage cooperatively with them through this process. While the formal period for consideration and incorporation of cooperating agency comments into the Draft RMP/EIS is over, BLM will continue to consider tribal input and is open to formally establishing cooperating agency status at any time.
Costello	Naomi	Evansville Tribal Council	None	107	20	Government-to-Government Consultation	103.0800.00	We propose that BLM supplement ongoing tribal consultation with the formation of a Tribal Advisory Board that is structured to meet with agency officials on a regular basis. A model for this board is the NPRA Subsistence Advisory Board formed through the Northeastern NPRA plan in 1988, or the NPRA Working Group formed through the 2013 NPR-A Integrated Activity Plan/Environmental Impact Statement. Meetings would need to be structured so that the Board could provide meaningful input on proposed development, rather than just being informed about ongoing development. The Board would also help BLM with the identification of potential traditional cultural properties and provide the traditional knowledge needed to recognize these properties as eligible for listing on the National Register. BLM could partner with university researchers who could offer technical expertise to the Board (similar to those who advise the Western Arctic Caribou Herd Working Group). These researchers could provide the anthropological evidence needed to support traditional cultural property nominations.	The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including consideration of co-management options developed in consultation with the Tribal Commission and tribes.

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Costello	Naomi	Evansville Tribal Council	None	107	30	Government-to-Government Consultation	103.0800.00	To ensure adequate protection to customary and traditional lands of tribes within the region-all of whom are environmental justice communities-we urge BLM to collaborate with tribes to identify and protect Traditional Cultural Properties, and to implement an ongoing, standardized mechanism for government to-government consultation such as a Central Yukon Tribal Advisory Board.	The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including consideration of co-management options developed in consultation with tribes or a tribal advisory board.
O'Reilly-Doyle	Kathleen	No organization name	None	112	7	Government-to-Government Consultation	103.0800.00	Ensure that consultation will take place with all tribes living within the planning area, on the tribes' own terms prior to carrying out activities that would affect them. The importance of protecting and upholding subsistence rights and cultural property throughout the planning area cannot be overemphasized. Peoples living within the planning area have a right to retain the ability to subsist off the lands and waters of the planning area.	The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes. BLM also remains committed to complying with all relevant laws, including the NHPA and ANILCA.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	1	Government-to-Government Consultation	103.0800.00	Decisions the Bureau makes in the RMP will have significant impacts on planning area Tribes throughout the life of the plan. Therefore, the Bureau must meaningfully involve Tribes in its decision-making processes in a manner that recognizes and respects Tribal sovereignty and self- determination.2 At this point, the Draft RMP does not satisfy the Bureau's obligations to planning area Tribes. The Bureau's preferred alternative, Alternative C2, emphasizes extractive development at the expense of resources and uses important to planning area Tribes. The Tribal Commission strongly encourages the Bureau to revisit its selection of Alternative C2 as its preferred alternative and develop a revised alternative or sub-alternative in government-to- government consultation with the Tribal Commission and individual Tribes. 2 Exec. Order No. 13175, 65 Fed. Reg. 67,249, 67,249-50 (Nov. 6, 2000).	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input. Input received from tribes has been considered and incorporated into the Proposed RMP/Final EIS, and has helped shape the Proposed Plan, Alternative E. Changes relevant to this input include those regarding consultation, Traditional Cultural Properties, designation of tribally nominated ACECs, and making no recommendation for the revocation of Public Land Orders.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	2	Government-to-Government Consultation	103.0800.00	Though the Bureau stated that it consulted with planning area Tribes and provided opportunities to participate in the planning process,8 review of the Draft RMP revealed no material changes in response to Tribes' comments and concerns. Instead, the Bureau made decisions that dismissed Tribes' knowledge and values. For example, the Bureau recognized that not designating any Areas of Critical Environmental Concern (ACEC)-including areas nominated by Tribes-"will be seen by some as a rejection of local concerns about protection of important subsistence species and habitat, as well as a failure to be responsive to local values and knowledge." 9 Despite this acknowledgement, the Bureau did nothing to remedy the problem. Furthermore, in identifying Alternative C2 as its preferred alternative, the Bureau has chosen to ignore substantive comments and concerns from Tribes, including Cooperating Agency Tribes' comments on the Preliminary Draft RMP and EIS. When the Bureau does not meaningfully respond to and incorporate Tribes' comments, it reduces consultation and participation in the planning process to mere box-checking exercises. 8 Bureau of Land Management, Central Yukon Draft Resource Management Plan and Environmental Impact Statement, 1-3 to 1-4 (Dec. 2020) [hereinafter "Draft RMP and EIS"], https://eplanning.blm.gov/public_projects/35315/200040776/20031041/250037240/Volume%202_Appen dices%20A-T.pdf. 9 Id. at 3-200, 3-204.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input. Input received from tribes has been considered and incorporated into the Proposed RMP/Final EIS, and has helped shape the Proposed Plan, Alternative E. Changes relevant to this input include those regarding consultation, Traditional Cultural Properties, designation of tribally nominated ACECs, and making no recommendation for the revocation of Public Land Orders.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	3	Government-to-Government Consultation	103.0800.00	The Bureau should also meaningfully involve Tribes in monitoring and implementing the RMP. The Draft RMP identifies "adjacent landowners, federal and state agencies, communities, other agencies, and individuals and organizations" as potential collaborators to monitor and implement the decisions in the RMP.10 The Bureau should revise this statement to expressly include Tribal governments as potential collaborators. Tribes should have a formal role in managing the lands and resources within the planning area and the Bureau should develop these roles in government- to-government consultation with the Tribal Commission and individual Tribes. 10 Id. at 2-1.	Suggested change made. The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including consideration of co-management options developed in consultation with tribes or a tribal commission.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	20	Government-to-Government Consultation	103.0800.00	Under the National Environmental Policy Act (NEPA) and Alaska National Interest Lands Conservation Act (ANILCA), the Bureau must consider the potential impacts of the RMP on cultural and subsistence resources and take actions to reduce adverse effects. Throughout the planning process, Tribes have raised the importance of providing adequate protections for cultural and subsistence resources that do not interfere with community members' access to those resources. In contrast, Alternatives C2 rejects adequate protections in an effort to promote extractive development in the planning area. It is disappointing to see that the Bureau identified as its preferred alternative one of the two alternatives that poses "the greatest potential for direct and indirect adverse effects on cultural resources"79 and provides the fewest protections for subsistence resources.80 79 Id. at 3-101. 80 Draft RMP and EIS Appendix Q at Q-1. The Bureau should engage in government-to-government consultation with the Tribal Commission and individual Tribes to evaluate potential impacts to cultural and subsistence resources and develop protections that will ensure the continued sustainability of those resources without impairing access to them.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input. Input received from tribes has been considered and incorporated into the Proposed RMP/Final EIS, and has helped shape the Proposed Plan, Alternative E. Changes relevant to this input include those regarding consultation, Traditional Cultural Properties, designation of tribally nominated ACECs, and making no recommendation for the revocation of Public Land Orders.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	26	Government-to-Government Consultation	103.0800.00	The State of Alaska does not have a formal relationship with any of the state's 229 federally recognized Tribes and there are no mechanisms for government-to-government consultation under state law. Furthermore, federal review processes will no longer apply to proposed development on lands transferred to the state, including the National Historic Preservation Act Section 106 process, which requires federal agencies to consult with any Tribe that may attach "traditional religious and cultural significance" to a historic property that may be affected by a proposed project or activity.102 In contrast, the Alaska Historic Preservation Act does not provide any formal means for a Tribe to consult with the state on the identification and protection of tribal cultural resources. Therefore, any transfer of federal land to the state will fundamentally change the way in which cultural and subsistence resources are managed and decrease planning area Tribes' involvement in decisions that potentially impact these important resources. The Bureau should revisit its analysis of the potential impacts to cultural and subsistence resources and select a Proposed RMP that does not recommend revoking PLO 5150. 102 54 U.S.C. § 302706(b).	Input received from tribes has been considered and incorporated into the Proposed RMP/Final EIS, and has helped shape the Proposed Plan, Alternative E. Changes relevant to this input include those regarding consultation, Traditional Cultural Properties, designation of tribally nominated ACECs, and making no recommendation for the revocation of Public Land Orders.
Okada	Marcy	Gates of the Arctic National Park Subsistence Resource Commission	None	143	1	Government-to-Government Consultation	103.0800.00	The SRC calls into question the legality of the process used to inform the public as well as the public meeting that was held for the Section 810 hearing. The affected communities in the Region have very limited access to electronic means nor do they have the computer bandwidth capacity to download the documents in order to review them. Also, no hard copies were provided to the communities. Due to computer challenges, most of the affected communities were not able to navigate the pre-registration process in order to participate in the virtual meeting and long-distance charges are cost prohibitive for most rural people. The meeting process as currently provided for by the BLM for the Central Yukon Resource Management Plan/Environmental Impact Statement is not compliant with the Federal open meeting statutes under PUBLIC LAW 94-409 referred to as the Sunshine Act, or Federal 40 CFR 1506.6, NEPA regulations, or ANILCA Title VIII Section 810 (2). "When selecting appropriate methods for providing public notice, agencies shall consider the ability of affected persons and agencies to access electronic media." It is virtually impossible to electronically access the planning documents or decipher the scattered information for the plan alternatives. The sheer volume of material is not laid out in a format that is user-friendly. It would take anyone many days to compare the alternatives and synopsis keys are few and obscure. The rushed BLM hearing process does not statutorily comply with ANILCA Title VIII Section 810 (2) to inform the subsistence users of the affect to them and receive their comments in a meaningful way.	The BLM has been and remains committed to fulfilling the responsibility under ANICLA Section 810 to adequately inform subsistence users of the effects on them under the RMP and consider their comments. The public hearings on January 28 through February 4, 2021, were held with adequate advance notice, and input from these meetings was considered during the planning process.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Gestring	Bonnie	Earthworks	None	146	68	Government-to-Government Consultation	103.0800.00	BLM failed to address Tribes' requests for Cooperating Agency status in a timely way, delaying response to Tribes, in one case several years. Because some Tribe's requests for Cooperating Agency status gained no response or a delayed response, Tribes lost the critical opportunity to comment on the pre-public Draft RMP. Going forward, BLM needs to be a good-faith collaborator and act more responsively to Tribes' official requests, addressing Tribes decisions without avoidance. Government entities possessing a jurisdiction by law or special expertise are eligible to become Cooperating Agencies. Central Yukon Tribes requesting Cooperating Agency status are qualified and eligible to participate in the development of Environmental Impact Statements (EIS) as Cooperating Agencies by virtue of special expertise and longstanding traditional knowledge about these specific lands, for which there is limited western science and digital data. Tribal knowledge of the planning area's cultural and natural environment is essential for the BLM to consider in its process of evaluating consequences of proposed actions on public lands that may affect Tribal interests. The BLM and their third-party contractors do not possess this knowledge - the Tribal governments stand alone in possessing this special expertise. The Council on Environmental Quality (CEQ) requires, as a matter of policy, that Federal agencies must affirmatively offer tribal, State, and local agencies formal cooperating agency status when appropriate. Some Tribes were approved for Cooperating Agency status, and some were not. No explanation or justification has been offered by the BLM about the random affirmation of select Tribes in Cooperating Agency status. The reason and determination of extending or declining Cooperating Agency status should also be included in the administrative record. CEQ requires that agencies must consider all requests from eligible entities and if the request is denied BLM must state the reasons in the EIS.	BLM appreciates the importance of tribal communities' knowledge. For any interested tribes that are not currently an official cooperating agency, BLM will continue to engage cooperatively with them through this process. While the formal period for consideration and incorporation of cooperating agency comments into the Draft RMP/EIS is over, BLM will continue to consider tribal input and is open to formally establishing cooperating agency status at any time.
Gestring	Bonnie	Earthworks	None	146	71	Government-to-Government Consultation	103.0800.00	No Tribal Liaison. BLM Alaska failed to provide a Tribal Liaison function for outreach and basic communication to Tribes from the Notice of Intent for Scoping in 2013 through the Draft RMP for the Central Yukon Resource Management Planning process. Without a functional Tribal Liaison in Alaska, it has burdened BLM's planning staff with the full responsibility of Tribal outreach. Many Tribal communities had little to no communication from BLM between 2018 and late 2020, despite having millions of acres of BLM land in active planning surrounding the community.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input. Consideration of agency staffing and resources is beyond the scope of the Central Yukon RMP.
Gestring	Bonnie	Earthworks	None	146	72	Government-to-Government Consultation	103.0800.00	No Tribal Liaison. BLM Alaska failed to provide a Tribal Liaison function for outreach and basic communication to Tribes from the Notice of Intent for Scoping in 2013 through the Draft RMP for the Central Yukon Resource Management Planning process. Without a functional Tribal Liaison in Alaska, it has burdened BLM's planning staff with the full responsibility of Tribal outreach. Many Tribal communities had little to no communication from BLM between 2018 and late 2020, despite having millions of acres of BLM land in active planning surrounding the community.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input. Consideration of agency staffing and resources is beyond the scope of the Central Yukon RMP.
Gestring	Bonnie	Earthworks	None	146	73	Government-to-Government Consultation	103.0800.00	Secretarial Order 3355 effects on Tribes. Requirements under Secretarial Order 3355 for fast-tracking and streamlining National Environmental Policy Act's Environmental Impact Statements had the effect of severely limiting access to BLM for consultation and time for Tribes to meet as Cooperating Agencies with BLM to consider plan language. Only 10 days were allowed for Cooperating Agency review of the pre-public Central Yukon draft RMP. Consultation and Cooperating Agency involvement timelines must be lengthened to allow reasonable consultation and Cooperating Agency meeting time. There are no pressing development projects that require the completion of this RMP on a fast-track basis. Tribes asked BLM to allow time for at least two meetings with each Cooperating Agency Tribe to consider draft Proposed RMP plan language. Secretarial Order 3355 does not abrogate the agency's lawful obligations to Tribes.	BLM has and will comply with any existing Secretarial Order or CEQ regulations related to NEPA that prescribe timelines.
Gestring	Bonnie	Earthworks	None	146	74	Government-to-Government Consultation	103.0800.00	The federal trust duty to preserve Alaska Native aboriginal lands and protect them from third-party intrusions continues under section 11 of ANCSA and ANILCA, wherein Congress withdrew Native-selected core townships and deficiency lands from the operation of the public land laws, pending final patenting. Under ANILCA, for example, the government reserved "water quality and necessary water quantity" for new wildlife refuges, parks, and forests covering approximately 104 million acres. With some exceptions, ANILCA imposes procedural restrictions on future dispositions of public lands if such dispositions will affect subsistence. If so, the federal agency managing the lands must analyze the disposition's effect on subsistence and consider alternatives to reduce or eliminate the need for the disposition. Although the federal trust duty, for example, contemplates that federal agencies explain the consultation process in detail when reaching out to tribal governments to engage in formal government-to-government consultation, this did not occur regarding the draft CYRMP, in which most Alaska tribes received an e-mail with no explanation that the plan would lead the way for one of the largest public land liquidations (almost 50 million acres) in US history, nor was there an explanation of the impact this would have on critical subsistence resources. Instead, in most cases, the BLM sent a letter of notification and inquiry to the federally recognized tribes, and ANCSA village and regional corporations listed in Appendix B. The BLM offered the opportunity to participate in formal government-to-government consultation, the opportunity to receive information about the project, and the option for tribal governments to participate as cooperating agencies"73 without providing any explanation that protected status for watersheds would be lifted for over 13 million acres of lands throughout the region, including land designated as critical to salmon habitat. This clearly is not in accordance with BLM's requirement that it engage in "meaningful consultation" with Alaskan Natives and its trust obligations related to the revocation of D-1 land withdrawals. 73 Ibid. at 1.5.3, p. 1-4 In addition, although after contacting these Tribes, the agency met with 10 tribes that requested consultation,74 by effectively opening virtually all of the CY planning area's 13.1-million acre land base to mineral entry and other development and the Plan, which governs land management for the next twenty to thirty years and eliminates the existing protections for 1.8 million acres of land, the BLM essentially ignored the input from the tribes during consultation.75 In addition, this omission is regardless, of the fact that the subsistence priority is guaranteed to Alaska Native residents under the Alaska National Interest Lands Conservation Act and much of the land within the planning area had been the traditional tribal land of over sixty-nine Alaska tribes, in its haste to open the withdrawn lands to mining development, the BLM failed to adequately consult with Tribes including those whose subsistence practices would be affected by the lifting. 74 Ibid. 75 See, CY PRMP/Final EIS at 2.5.2 at Chapter 2, Table 2-1. Finally, the BLM provides: Government-to-government and ANCSA corporation consultation and coordination is not limited to formal public scoping or comment periods but will continue throughout the planning process. This is to ensure that the BLM takes into consideration the concerns of tribes and ANCSA corporations during development of the CYRMP. The BLM will continue to include the corporations and tribes in all outreach during the planning process and will consult on a more formal basis if requested.76 76 Ibid. at 1.5.3, p. 1-4. As part of the ongoing planning process, therefore, the agency should continue to consult with the affected tribes and actually listen to their concerns about how the preferred alternative, which will open all of the agency's lands to mining and other development, will have on tribal trust resources. Once this is done the Final RMP/EIS should reflect these concerns rather than ignore them as do the draft documents.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input. Input received from tribes has been considered and incorporated into the Proposed RMP/Final EIS, and has helped shape the Proposed Plan, Alternative E. Changes relevant to this input include those regarding consultation, Traditional Cultural Properties, designation of tribally nominated ACECs, and making no recommendation for the revocation of Public Land Orders.

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Gestring	Bonnie	Earthworks	None	146	77	Government-to-Government Consultation	103.0800.00	Environmental Justice principles require 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 principles require that no group of people should bear a disproportionate burden of environmental harms and risks, including those resulting from the negative environmental consequences of industrial, governmental, and commercial operations or programs and policies. Meaningful Involvement principles require that: (1) potentially affected community members have an appropriate opportunity to participate in decisions about a proposed activity that will affect their human health or environment; (2) the public's input can influence the regulatory agency's decision; (3) the concerns of all participants involved will be considered in the decision-making process; and (4) the decision-makers seek out and facilitate the involvement of those potentially affected. Because of the above list of process considerations and BLM's failures to include any Tribally-requested conservation elements in the Draft Central Yukon RMP, we conclude Environmental Justice principles have not been met by BLM in the Central Yukon planning process and attest that BLM's failures have rendered the planning process unjust for planning area Tribes and communities. As a result of the priorities of the Biden Administration especially regarding the federal government's relationship with Indigenous Peoples and Tribes, BLM should employ rigorous consultation with the Tribal Commission and Tribes to inform a NEPA process that adds conservation elements requested by Tribes and other agencies and considers Tribal co-management options for indigenous peoples' traditional homelands. If requested by Tribes, BLM should work with the Tribal Commission toward the development of co-management options for traditional homelands. By working closely with Indigenous communities, the Tribal Commission and individual Tribes, the agency will be able to revise proposed decisions in the Central Yukon Plan to achieve a balanced final solution that meets its multiple use mandate.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input. Input received from tribes has been considered and incorporated into the Proposed RMP/Final EIS, and has helped shape the Proposed Plan, Alternative E. Changes relevant to this input include those regarding consultation, Traditional Cultural Properties, designation of tribally nominated ACECs, and making no recommendation for the revocation of Public Land Orders.
Schutt	Aaron	Doyon Limited	None	173	7	Government-to-Government Consultation	103.0800.00	NWSR recommendation and designation imposes significant restrictions on the use of, and access to, surrounding lands. Recommendation and designation of additional river segments reviewed in connection with this planning effort could prevent Doyon and other ANCSA landowners from reasonably accessing their lands and enjoying the full economic benefit of those lands as intended by ANCSA.	Under Alternative E, the Proposed Plan, all 11 stream segments would be determined to be not suitable for inclusion in the NWSRS and would release them from interim management protections afforded eligible or suitable segments.
Schutt	Aaron	Doyon Limited	None	173	23	Government-to-Government Consultation	103.0800.00	And BLM must engage in meaningful consultation with Doyon, particularly when such decisions could affect access to and use of its Native lands.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of ANC and tribal input.
Schutt	Aaron	Doyon Limited	None	173	27	Government-to-Government Consultation	103.0800.00	As noted above, Alternatives B and C1 propose to prioritize wilderness characteristics and/or impose management restrictions to reduce impacts on wilderness characteristics on certain areas surrounding or adjacent to Doyon-owned lands. Access across these BLM-managed lands will be critical to Doyon's ability to make economic and other use of its inholdings. However, management of these lands to maintain wilderness characteristics could be used as a basis for BLM to attempt to deny, or unreasonably condition, access to Doyon's inholdings, frustrating Doyon's and its shareholders' ability to realize the economic development value for which Doyon was permitted to select those lands pursuant to ANCSA.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS, which included different management prescriptions regarding lands with wilderness characteristics. The BLM considered Doyon access to Doyon-owned lands when developing the Proposed Plan. The Proposed Plan, Alternative E, allocates all lands with wilderness characteristics to be managed for emphasis of other resource values and multiple uses.
Schutt	Aaron	Doyon Limited	None	173	30	Government-to-Government Consultation	103.0800.00	Similarly, in the vicinity of Wiseman, the action alternatives variously propose extensive ROW exclusion and avoidance areas as well as a variety of ACECs. As shown on the attached Figure 2, by designating BLM lands in this area as ROW exclusion and avoidance areas, these alternatives effectively could isolate Doyon's Wiseman property from the Dalton Highway, depriving Doyon of essential access to and from the property. As with the Indian River ACEC, the Draft RMP does not address the potential effects on adjoining landowners (Doyon specifically) of designating these large swaths of BLM land as ROW exclusion or avoidance areas. Draft RMP, pp. 3-132, 3-133. The Draft RMP similarly fails to evaluate the potential effects of designating the ACECs that surround Doyon's Wiseman property, especially the Sukakpak/Snowden Mountain (Draft RMP, p. T-40 - T-41), Poss Mountain (Draft RMP, p. T-30 - T-31), South Fork Koyukuk River (Draft RMP, p. T-36), and Upper Teedriinjik (Chandalar) River (Draft RMP, p. T-53) ACECs.	This important topic is discussed in the Proposed RMP/Final EIS in Section 2.1, Management Common to All Alternatives and again in Chapter 3 under Lands and Realty (Section 3.3.2). Unless specific lands are designated as right-of-way (ROW) exclusion areas, areas of critical environmental concern (ACEC) designations would not prevent or preclude authorized access to adjacent lands not managed by BLM. Additionally, ACEC designations would not prevent any ROWs guaranteed under section 1323(b) of the ANILCA. ROW avoidance areas within ACECs are areas that would be available for authorized activities that may entail special stipulations or consideration of other site-specific alternatives to protect identified R&I values for the subject ACEC(s) involved. The BLM would work with any project proponent to design a project plan in ROW avoidance areas that meets the proponent's needs and protects R&I ACEC values.
Schutt	Aaron	Doyon Limited	None	173	35	Government-to-Government Consultation	103.0800.00	As noted earlier, blanket prohibitions on ROW location also are inconsistent with the adaptive management strategies that BLM has indicated it intends to employ over the term of the RMP. BLM can evaluate and address the potential environmental impacts of any proposed ROW as part of its review of the ROW application under the agency's normal permitting process. If BLM decides to take a different approach with regard to ROW exclusion areas, BLM must first fully consult with potentially affected ANCs and tribal entities, and seek input from local communities, on the specific location and extent of such areas to determine and avoid or minimize potential adverse impacts on access and use.	This important topic is discussed in the Proposed RMP/Final EIS in Section 2.1, Management Common to All Alternatives and again in Chapter 3 under Lands and Realty (Section 3.3.2). Unless specific lands are designated as right-of-way (ROW) exclusion areas, areas of critical environmental concern (ACEC) designations would not prevent or preclude authorized access to adjacent lands not managed by BLM. Additionally, ACEC designations would not prevent any ROWs guaranteed under section 1323(b) of the ANILCA. ROW avoidance areas are areas that would be available for authorized activities that may entail special stipulations or consideration of other site-specific alternatives to protect identified R&I values for the subject ACEC(s) involved. The BLM would work with any project proponent to design a project plan in ROW avoidance areas that meets the proponent's needs and protects R&I ACEC values.
Schutt	Aaron	Doyon Limited	None	173	39	Government-to-Government Consultation	103.0800.00	Accordingly, the RMP should appropriately address Doyon's and other inholders' rights to access pursuant to Title XI and Section 1323(b) of ANILCA. In addition, the RMP should provide reasonable clarity and certainty for those who own inholdings within the boundaries of the Planning Area, who require access across federal lands in the Planning Area in order to access those inholdings, and whose planning decisions are dependent upon how the lands in the Planning Area are managed.	This important topic is discussed in the Proposed RMP/Final EIS in Section 2.1, Management Common to All Alternatives and again in Chapter 3 under Lands and Realty (Section 3.3.2). Unless specific lands are designated as right-of-way (ROW) exclusion areas, areas of critical environmental concern (ACEC) designations would not prevent or preclude authorized access to adjacent lands not managed by BLM. Additionally, ACEC designations would not prevent any ROWs guaranteed under section 1323(b) of the ANILCA. ROW avoidance areas are areas that would be available for authorized activities that may entail special stipulations or consideration of other site-specific alternatives to protect identified R&I values for the subject ACEC(s) involved. The BLM would work with any project proponent to design a project plan in ROW avoidance areas that meets the proponent's needs and protects R&I ACEC values.
Schutt	Aaron	Doyon Limited	None	173	42	Government-to-Government Consultation	103.0800.00	In developing the final RMP and EIS, BLM should specifically address the access guaranteed to Doyon and other inholders under Section 1323(b). The final RMP must be consistent with meeting the future access needs of Doyon and other inholders within the Planning Area as guaranteed under Section 1323(b) and the Title XI provisions discussed above.	This important topic is discussed in the Proposed RMP/Final EIS in Section 2.1, Management Common to All Alternatives and again in Chapter 3 under Lands and Realty (Section 3.3.2). Unless specific lands are designated as right-of-way (ROW) exclusion areas, areas of critical environmental concern (ACEC) designations would not prevent or preclude authorized access to adjacent lands not managed by BLM. Additionally, ACEC designations would not prevent any ROWs guaranteed under section 1323(b) of the ANILCA. ROW avoidance areas are areas that would be available for authorized activities that may entail special stipulations or consideration of other site-specific alternatives to protect identified R&I values for the subject ACEC(s) involved. The BLM would work with any project proponent to design a project plan in ROW avoidance areas that meets the proponent's needs and protects R&I ACEC values.

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Schutt	Aaron	Doyon Limited	None	173	45	Government-to-Government Consultation	103.0800.00	Doyon appreciates DOI's recent and ongoing efforts to improve consultation not only with Tribal governments, but also with ANCSA Corporations. Doyon cannot overstate the importance of BLM's obligation to consult with the ANCs regarding these matters under EO 13175, as specifically extended to the ANCs by Congress. Pursuant to Federal law and policy, BLM must ensure that ANCs are provided the opportunity to meaningfully participate in Federal agency decisionmaking processes-including this RMP planning process-that could impact our ability to fulfill the purposes for which we were established under ANCSA and to protect and advance the economic, social, and cultural interests of our shareholders.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal and ANCSA Corporation input.
Schutt	Aaron	Doyon Limited	None	173	46	Government-to-Government Consultation	103.0800.00	As it proceeds with its review and decisionmaking process with regard to a final RMP, BLM must continue to engage in meaningful consultation with Doyon and other affected ANCs. Particularly in light of recent DOI actions relating to PLOs in Alaska, this specifically includes engaging Doyon in consultation concerning BLM's consideration of determinations and recommendations relating to withdrawals and PLOs in the Planning Area.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal and ANCSA Corporation input.
Gemill	Margorie	Native Village of Venetie Tribal Government	None	184	2	Government-to-Government Consultation	103.0800.00	The BLM has an obligation to coordinate with Tribes on a government-to-government basis throughout the planning process, including providing "ample opportunities" for Tribes to comment on the development of the plan.8 The BLM must consider Tribes' comments and inform Tribes of how the agency addressed their comments in its final decisions.9 7 Native Village of Venetie Tribal Government is a member Tribe of the Bering Sea-Interior Tribal Commission. On March 12, 2021, the Tribal Commission submitted comments on the Draft RMP and EIS that include additional information about these shortcomings and requested changes. 8 Bureau of Land Management, H-1601-1 Land Use Planning Handbook 3, 9-10 (March 2005) [hereinafter "Land Use Planning Handbook"]; 43 C.F.R. § 1610.3-1(a). 9 Land Use Planning Handbook at 9. "At a minimum," the BLM must provide Tribes with "the same level of involvement as state and county officials."10 Cooperating Agency Tribes, including the Native Village of Venetie Tribal Government, submitted comments on the Preliminary Draft RMP and EIS explaining how Alternative C2 did not satisfy the BLM's statutory obligations and failed to respond to planning area Tribes' substantive comments and concerns. 11 Cooperating Agency Tribes also asked the BLM to adopt Tribes' nominations for areas of critical environmental concern and provide meaningful protections for cultural and subsistence resources that do not interfere with community members' access to those resources.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input. Input received from tribes has been considered and incorporated into the Proposed RMP/Final EIS, and has helped shape the Proposed Plan, Alternative E. Changes relevant to this input include those regarding consultation, Traditional Cultural Properties, designation of tribally nominated ACECs, and making no recommendation for the revocation of Public Land Orders.
Gemill	Margorie	Native Village of Venetie Tribal Government	None	184	4	Government-to-Government Consultation	103.0800.00	Like all federal agencies, the BLM owes a trust responsibility to Tribes and must engage in government-to-government consultation with Tribes when contemplating actions that may affect Tribal interests.16 The BLM's dismissal of our comments and the agency's failure to adopt adequate protections for cultural and subsistence resources fall far short of its obligation to Tribes. As the BLM revises the RMP and EIS, the agency must meaningfully involve Tribes in its decision-making processes in a manner that recognizes and respects Tribal sovereignty and self-determination	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input. Input received from tribes has been considered and incorporated into the Proposed RMP/Final EIS, and has helped shape the Proposed Plan, Alternative E. Changes relevant to this input include those regarding consultation, Traditional Cultural Properties, designation of tribally nominated ACECs, and making no recommendation for the revocation of Public Land Orders.
Kenning	Erik	Arctic Slope Regional Corporation	None	187	2	Government-to-Government Consultation	103.0800.00	ASRC has not had an ANCSA Corporation consultation with BLM yet on this Draft CY RMP/EIS. ASRC would like to have consultation with BLM to specifically discuss the area of the North Slope that this plan covers.	BLM held consultation with ASRC at their request in July of 2023 after publishing the Draft RMP/EIS. The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including consultation with interested ANCSA Corporations.
Kenning	Erik	Arctic Slope Regional Corporation	None	187	5	Government-to-Government Consultation	103.0800.00	BLM should work with ASRC in a spirit of co-management when considering restrictions on federal land which may impact Alaska Native landowners before the final EIS is published. ASRC is concerned about the possible impacts of creating new isolated areas of BLM with any additional restrictions. This can inadvertently devalue our lands creating a blockage or complication of access to/from our lands for development or other opportunities. Devaluing our lands with resource potential in this manner could have significant negative financial impacts on ASRC and our approximate 13,000 Inupiat shareholders, as well as Alaska Natives statewide through loss of potential 7(i) distributions from those lands.	This important topic is discussed in the Proposed RMP/Final EIS in Section 2.1, Management Common to All Alternatives and again in Chapter 3 under Lands and Realty (Section 3.3.2). Unless specific lands are designated as right-of-way (ROW) exclusion areas, areas of critical environmental concern (ACEC) designations would not prevent or preclude authorized access to adjacent lands not managed by BLM. Additionally, ACEC designations would not prevent any ROWs guaranteed under section 1323(b) of the ANILCA. ROW avoidance areas are areas that would be available for authorized activities that may entail special stipulations or consideration of other site-specific alternatives to protect identified R&I values for the subject ACEC(s) involved. The BLM would work with any project proponent to design a project plan in ROW avoidance areas that meets the proponent's needs and protects R&I ACEC values.
Brower	Harry	North Slope Borough	None	190	2	Government-to-Government Consultation	103.0800.00	Appendix E deals with the means and potential limitations on access to BLM managed lands and provides guidance on implementing Sections 811 and 1110(a) of ANILCA. Absent from the description of next steps following the signing of this RMP and a separate travel management plan is consultation with organizations within the federal subsistence management system and required government-to-government consultation with affected tribes. Such consultation must be built into the processes for both interim and final decisions on these plans, as well any processes defined for consideration of any action that would impose restrictions on or closures to the listed means of access to the subject lands for subsistence purposes.	Suggested change made. The following text has been added to **Appendix E**: "[...the BLM will undertake the following process for both interim and final decisions:...] •Consultation with relevant organizations within the federal subsistence management system and government-to-government consultation with affected tribes."
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	26	Government-to-Government Consultation	103.0800.00	Like all entities struggling to operate in the COVID-19 pandemic, BLM has sought to continue its operations and proceed with the EIS process in spite of barriers posed by federal travel and health restrictions. Problematically, BLM has not been able to meet the public hearing requirements under NEPA regulations32 and ANILCA 810 for the draft CYRMP Here, the required hearings under public involvement and tribal consultation were not held in the affected villages where residents were occasionally under quarantine and imposed travel restrictions brought on by the unique COVID pandemic. While BLM made efforts to hold substitute open house and public hearings virtually, many rural permanent residents in the villages do not possess adequate digital hardware or Internet access to participate in virtual meetings. Even telephonic access is compromised in some rural communities and was exemplified at the Feb. 2, 2021 hearing, when Jessie David was able to establish only a poor connection to the hearing by using a paid calling card. She, like many others in rural villages, do not have long-distance land-line phone service to dial in. In a separate case of different miscommunication, Stevens Village was not aware of the meeting that was set up to include them. Probably the largest constraint on effective public and tribal outreach is the fact that Tribal communities did not have access to a printed copy of the draft RMP, or insufficient internet service to download from the BLM e-planning platform. For these and other related reasons, BLM should pause the implementation of the RMP process until adequate hearings can be held that genuinely take into account the broader concerns and perceived impacts by affected tribal governments. An advantage for pausing would allow BLM planners and resources staff to consult over the series of formal maps that explain many of the nuances of the RMP. 32 See BLM Manual H-1790-1 - NATIONAL ENVIRONMENTAL POLICY ACT HANDBOOK (2008) 63: "Public meetings or hearings are required when there may be substantial environmental controversy concerning the environmental effects of the proposed action, a substantial interest in holding the meeting, or a request for a meeting by another agency with jurisdiction over the action (40 CFR 1506.6 (c))." Section 810(a) of ANILCA prohibits agencies from making decisions that would significantly restrict subsistence uses without "giv[ing] notice of, and hold[ing], a hearing in the vicinity of the area involved." Another important cross-cultural concern about the shortcomings of the outreach and communication process was expressed by Jessie is that agency officials with BLM were unable to see the non-verbal behavior of the residents and would misconstrue their silence in public outreach sessions as consent to the proposed plan. She noted that many more elders would have participated in the hearings if it they had been held in the village. While it is true that the virtual format may have allowed participation from some who otherwise would not have been able to participate, this increased participation likely skews towards younger and more urban residents with access to technology. Thus, the public input was distorted.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input on cultural resources and ANICLA Section 810. The public hearings on January 28 through February 4, 2021, were held with adequate advance notice, and input from these meetings was considered during the planning process.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	28	Government-to-Government Consultation	103.0800.00	Some, but not all affected tribes have participated in the planning process as cooperating agencies and that relationship should be preserved in the implementation of the plan and expanded to all affected tribal governments and tribal resources expertise with affiliated tribal organizations It is essential that BLM make multiple efforts to include tribes as cooperating agencies so that the public land planning process can benefit from their agency expertise. In particular, we wish to avoid a repeat of the situation Louden experienced-it expressed a desire to serve as a cooperating agency, but this was never achieved prior to the publication of the DEIS. Agency expertise possessed by Tribal governments include traditional knowledge on ethno geography, ethno history, community demographics, tribal governance, cultural resources, customary and traditional use areas, human health impacts, climate change observations and culturally relevant knowledge about lands and resources that support their wild food, hunter and gathering economies. Given the communication challenges of sharing knowledge and expertise between urban agency offices and remote villages, it is incumbent on BLM to ensure an ongoing dialogue with Tribes over the management of public lands that overlap with customary and traditional use areas.	BLM appreciates the importance of tribal communities' knowledge. For any interested tribes that are not currently an official cooperating agency, BLM will continue to engage cooperatively with them through this process. While the formal period for consideration and incorporation of cooperating agency comments into the Draft RMP/EIS is over, BLM will continue to consider tribal input and is open to formally establishing cooperating agency status at any time.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	29	Government-to-Government Consultation	103.0800.00	We propose that BLM supplement ongoing tribal consultation with the formation of a Tribal Advisory Board that is structured to meet with agency officials on a regular basis. A model for this board is the NPRA Subsistence Advisory Board formed through the Northeastern NPRA plan in 1988, or the NPRA Working Group formed through the 2013 NPR-A Integrated Activity Plan/Environmental Impact Statement. Meetings would need to be structured so that the Board could provide meaningful input on proposed development, rather than just being informed about ongoing development. The Board would also help BLM with the identification of potential traditional cultural properties and provide the traditional knowledge needed to recognize these properties as eligible for listing on the National Register. BLM could partner with university researchers who could offer technical expertise to the Board (similar to those who advise the Western Arctic Caribou Herd Working Group). These researchers could provide the anthropological evidence needed to support traditional cultural property nominations.	The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including consideration of co-management options developed in consultation with tribes or a tribal advisory board.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	30	Government-to-Government Consultation	103.0800.00	From a longer term perspective, the plan falls short in terms of recognizing potential opportunities for co-management with tribes in the planning area. Despite the fact that tribes served as valuable cooperating agencies in the DEIS, there is no apparent role for them going forward. BLM should pursue an Alaskan specific co-management process through the cooperative agreement arrangement with the Secretary (in the form of resource baseline studies and adaptive management monitoring) or as authorized under ANILCA Section 809.	The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including consideration of co-management options developed in consultation with tribes.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	39	Government-to-Government Consultation	103.0800.00	Overall, TCC supports the key components of Alternative B that provide for ACECs and conservation, along with the ANCSA 17(d) withdrawals under Alternative A that will preserve federal management in areas important to TCC communities. To ensure adequate protection to customary and traditional lands of tribes within the region-all of whom are environmental justice communities-we urge BLM to collaborate with tribes to identify and protect Traditional Cultural Properties, and to implement an ongoing, standardized mechanism for government to-government consultation such as a Central Yukon Tribal Advisory Board.	Alternative E, the Proposed Plan, was developed from the range of alternatives, and development took the expressed concerns into account. Alternative E would designate 21 ACECs covering 3,611,000 acres and would not recommend revocation of ANCSA 17 (d)(1) withdrawals. The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including consideration of co-management options developed in consultation with tribes or a tribal advisory board.
National Wildlife Refuges	Koyukuk	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Northern Unit of Innoko National Wildlife Refuges	205	12	Government-to-Government Consultation	103.0800.00	We recommend BLM work closely with tribal partners to identify and protect lands, watersheds, and wildlife connectivity corridors of importance for subsistence use in the development of this plan	The BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including consideration of co-management options developed in consultation with tribal partners.
Thorne	Rich	No organization name	None	5	7	Lands and Realty and Utility Corridor	209.0200.00	Is the ROW exclusion in the Upper Nigu going to affect the fly-in hunting conducted by Bettles businesses?	No. Rights-of-ways do not affect hunting, which is regulated by the state, or travel, including by air.
Thorne	Rich	No organization name	None	5	8	Lands and Realty and Utility Corridor	209.0200.00	How hard will it be to get an ROW in areas marked "ROW avoidance"?	As opposed to Right-of-way exclusion areas (areas which are not available for location of rights-of-way under any conditions) avoidance areas are areas to be avoided but may be available for location of rights-of-way with special stipulations. Rights-of-way are not generally required for “casual use” activities (e.g., driving over existing roads, sampling, surveying, marking routes, collecting data to prepare a ROW application, or activities that do not cause any appreciable disturbance or damage to the public land). A ROW is required for proposals to build a project on public land. Generally, right-of-way is granted for a term appropriate for the life of the project.
Costello	Naomi	Evansville Tribal Council	None	107	10	Lands and Realty and Utility Corridor	209.0200.00	ANILCA 906(e) allows the State to top-file for lands that would not otherwise be available for selection under the Alaska Statehood Act Section 6. We are very concerned about the manner through which the State was allowed to vastly over select property, well beyond the 25% over selection permitted by ANCSA.20 Further, ANILCA 906(j) prohibits selection of lands withdrawn under §17(d)(1) of ANCSA, "except … to the extent that Public Land Orders Numbered 5150 … by their terms continue to prohibit State selections of certain lands, such lands shall remain unavailable for future State selection except as provided by subsection (e) of this Act." 20 43 U.S.C. § 1635(f) There has been a lack of transparency in the selection process and the resulting over selection. Nowhere in the DEIS is the over selection clearly discussed, nor is there a map clearly showing the over selected lands and their position relative to ACECs and tribal communities. There is a need for much more rigorous consideration of the effects of the Central Yukon Plan if and when any of these over selected lands transfer from BLM to state management.	The SOA's entitlement and ability to top-file lands per ANILCA Section 906(e) is reflected in the RMP, including Section 3.1. The SOA's over selection is outside the scope of this RMP. RMP map, State- and Native-Selected Lands, and State Top-Filed Lands, shows the SOA selections, including top-filed lands.
Reakoff	Jack	No organization name	None	121	1	Lands and Realty and Utility Corridor	209.0200.00	I am commenting today regarding the provision in ANILCA 906 reference to the Alaska Statehood Act for community expansion. I contest any State land selection for Wiseman community expansion that is bordering the private lands and Native Allotments of Wiseman Village on any map submitted by the State of Alaska. The BLM CYRMP is required to recognize and include the residents and land owners of Wiseman in planning needs and discussions regarding any Community expansion. The final RMP should provide a process for the Wiseman Community Association and other interested individuals to meet with the BLM and State regarding needs for additional lands for community expansion. Residents and land owners of the Community of Wiseman should delineate where Community expansion would occur and how much land is required. After a public process and agreement, a formal request for those agreed-upon and specified community expansion lands shall be applied for under provisions of ANILCA 906.	The SOA's entitlement and ability to top-file lands per ANILCA Section 906(e) is reflected in the RMP, including Section 3.1. The SOA's over selection is outside the scope of this RMP. RMP map, State- and Native-Selected Lands, and State Top-Filed Lands, shows the SOA selections, including top-filed lands.

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Crockett	Deantha	Alaska Miners Association	None	199	94	Lands and Realty and Utility Corridor	209.0200.00	The Draft RMP blurs the distinction between land under BLM control and that of other landowners. BLM collated and analyzed data for 56 million acres, when their decisions affect only the 13.3 million acres under their management. This is especially troublesome because the Draft RMP does not recognize how its management decisions could adversely affect potential development in the surrounding areas.	The EIS discloses that, under all action alternatives, lands transferred out of federal ownership would no longer be available for public uses as identified in the FLPMA. Prioritizing acquisition and retention of public lands in the remaining acres would preserve and enhance opportunities for the use of public lands. The BLM does address the concept of how management decisions could adversely affect potential development in the surrounding areas in the cumulative impact analysis portion of the RMP/EIS. The EIS also distinguishes, in Chapter 1, between the planning area and the decision area which includes just the BLM-managed lands. The planning area overlaps portions of the Northwest Arctic Borough, the North Slope Borough, the Denali Borough, and the Fairbanks North Star Borough; however, most of the planning area is not within any borough boundary. BLM decisions apply only to BLM-managed lands within the planning area boundary. The planning area boundary includes 24 remote villages, 20 of which have federally recognized tribes, 13 ANCSA (ANCSA) Village Corporations, and three ANCSA Regional Corporations, including, Doyon Limited, Arctic Slope Regional Corporation, and NANA Regional Corporation. The BLM-managed lands in the RMP are referred to as the surface decision area, or 13,302,000 acres. The surface decision area has 219,000 acres of Native patent subsurface not managed by the BLM. The BLM-managed minerals in the RMP are referred to as the subsurface decision area, or 13,083,000 acres. Past, present, and RFFAs that would cumulatively affect lands and realty would be the result of activities both within and outside the planning area that would increase or decrease the demand for land use authorizations or the BLM's ability to accommodate new land use authorizations. In Chapter 3, Section 3.3.2, the EIA states that he recommendation to partially revoke PLO 5150 under Alternatives B and C1, the recommendation to fully revoke PLO 5150 under Alternatives C2 and D, and the indirect effects of the attachment of State of Alaska selections to 2,066,000 acres, would cumulatively affect land status and federal landownership, lands available for mineral entry and access to existing claims, ROW permitting, and casual and subsistence access in the only road-accessible area of the planning area.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	13	Lands and Realty and Utility Corridor	209.0200.00	ANILCA 906(e) allows the State to top-file for lands that would not otherwise be available for selection under the Alaska Statehood Act Section 6. We are very concerned about the manner through which the State was allowed to vastly over select property, well beyond the 25% over selection permitted by ANCSA.20 Further, ANILCA 906(j) prohibits selection of lands withdrawn under §17(d)(1) of ANCSA, "except … to the extent that Public Land Orders Numbered 5150 … by their terms continue to prohibit State selections of certain lands, such lands shall remain unavailable for future State selection except as provided by subsection (e) of this Act." 20 43 U.S.C. § 1635(f) There has been a lack of transparency in the selection process and the resulting over selection. Nowhere in the DEIS is the over selection clearly discussed, nor is there a map clearly showing the over selected lands and their position relative to ACECs and tribal communities. There is a need for much more rigorous consideration of the effects of the Central Yukon Plan if and when any of these over selected lands transfer from BLM to state management.	The SOA's entitlement and ability to top-file lands per ANILCA Section 906(e) is reflected in the RMP, including Section 3.1. The SOA's over selection is outside the scope of this RMP. RMP map, State- and Native-Selected Lands, and State Top-Filed Lands, shows the SOA selections, including top-filed lands.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	43	Lands and Realty and Utility Corridor	209.0200.00	We also would like to highlight EO 11988, Sec. 3 (d), which requires that: When property in floodplains is proposed for lease, easement, right-of-way, or disposal to non-Federal public or private parties, the Federal agency shall (1) reference in the conveyance those uses that are restricted under Identified Federal, State, or local floodplain regulations; and (2) attach other appropriate restrictions to the uses of properties by the grantee or purchaser and any successors, except where prohibited by law; or (3) withhold such properties from conveyance. Similarly, EO 11990, Sec. 4 states: When Federally-owned wetlands or portions of wetlands are proposed for lease, easement, right-of-way or disposal to non-Federal public or private parties, the Federal agency shall (a) reference in the conveyance those uses that are restricted under identified Federal, State or local wetlands regulations; and (b) attach other appropriate restrictions to the uses of properties by the grantee or purchaser and any successor, except where prohibited by law; or (c) withhold such properties from disposal. In regard to any lands within the planning area that are currently withdrawn but top filed by the State (e.g. lands withdrawn by PLO 5150) we interpret the requirements outlined in Sections 3(d) of EO 11988 and Section 4 of EO 11990 as pertaining to all BLM lands that have yet to be conveyed to the State.	The Draft RMP/EIS chapter 3, Water Resources section analyzed sensitive water resources including 100-year floodplains, high-value watersheds, a ¼-mile buffer of lentic areas, 160-acre buffer of hot springs, and watershed condition model (including functioning properly, functioning at risk, and impaired function). This is an appropriate level of analysis for the Draft RMP. The Draft RMP/EIS recommends, by alternative, revocations partial revocations, and retentions to the Secretary of the Interior.
Armstrong	Jay	No organization name	None	9	1	Locatable minerals	209.0304.00	My concern is that some of the data in here, I believe, is flawed, because, particularly on the mining, they talk about, over the last 10 years, they averaged approximately 82 permits per year; however, in the last 5 years, it declined to 32 permits, and they blame it on the price of gold dropping.	Levels of mining activity and the number of permits issued is highly variable depending on a variety of factors. BLM attempts to use the best available data at the time of publication when conducting analysis.
Thorne	Rich	No organization name	None	24	1	Locatable minerals	209.0304.00	I do see is a couple of places where the caribou are being protected, which is a good thing, but we really need to be looking at the Ray Mountains as potential mining area, and none of that is being mentioned anywhere in this plan. I -- the Ray Mountains are one of the world's largest river mineral deposits, and you folks enjoying your cell phones, this -- the rare earth in those cell phones comes from China. We should be mining those right here in Alaska for the benefit of everybody. I believe we can do that and protect caribou, also. But the resource plan does not address that issue in the Ray Mountains.	Rare Earth Elements and other critical minerals are considered locatable minerals, the proposed Alternatives make a number of areas available for locatable mineral entry. BLM reviewed the potential for Rare Earth Element development across the planning area, including the Ray Mountains, as part of the assessment of locatable mineral potential done in coordination with USGS and AKDGGS.
Hasselbach	Linda	National Park Service - Alaska Regional Office	None	123	11	Locatable minerals	209.0304.00	The Preferred Alternative C2 places a strong emphasis on resource development and mining. Under this alternative, one hundred percent of lands immediately adjacent to the eastern border of Gates of the Arctic NPP would be open to mineral material extraction. Locatable minerals such as gold, silver, and lead are widely distributed in the planning area. Mining and related development of these resources would generate "unavoidable adverse impacts" as described in Section 3.6 of the Draft RMP/EIS. These vary between alternatives. Alternative B generally has the least, while they are highest under Alternative C2 and D. Development is "generally expected in high and moderate potential areas", including lands near the park boundary from Wiseman south to the Bettles Ice Road and also near the Nigu River. The Nigu is rich in archaeological and cultural resources and a migratory path for Western Arctic Caribou Herd. Residents of Anaktuvuk Pass have traditional ties to this area. Mining in all areas near the park boundary has the real potential to impact wildlife populations and wildlife travel corridors, water and air quality, and wilderness characteristics within Gates of the Arctic NPP. To minimize effects to Gates of the Arctic NPP, we recommend the less intensive mining practices described in Alternative B	BLM is required to analyze a range of alternatives and examine the impacts of the entire range on a variety of resources, including wildlife, air and water quality, and wilderness characteristics.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Gestring	Bonnie	Earthworks	None	146	89	Locatable minerals	209.0304.00	SOPs and STIPs for locatable mineral development. We're also surprised at the scarcity of SOPS and STIPs for hardrock mining. With the increased risk to mining, oil and gas facilities associated with climate change, we urge the BLM to develop and incorporate SOPs that require analysis of the potential impacts of climate change and incorporate that analysis into planning, design, operations, reclamation and closure, including but not limited to: * design and management of mine facilities (e.g., including stormwater systems, tailings impoundments, processing ponds, water capture and treatment systems, etc.) to withstand an increase in the rate and severity of severe weather events,97 * analysis of the effects of climate change on the viability of cover systems,98revegetation efforts, and other reclamation and closure activities,99 * analysis of the effects of climate change on long-term water balance and water treatment systems,100 97 Reinecke S and Brodie J (2012) Climate Change Impacts on Metal Leaching and Acid Rock Drainage at Canadian Mines - Risks for Operation and Closure. In 'Proceedings of 9th International Conference on Acid Rock Drainage'. Ottawa, Canada. 20-26 May 2012. (Eds WA Price, C Hogan and G Tremblay) pp. 1-12. (Golder Associates Ltd: Kanata, Ontario). 98 Stianson J, Dubnick A, McNaughton C and Fredlund D (2012) Analyzing the Effect of Climate Change on Soil Cover Performance. In 'Proceedings of 9th International Conference on Acid Rock Drainage'. Ottawa, Canada. 20-26 May 2012. (Eds WA Price, C Hogan and G Tremblay) pp. 13-24. (Golder Associates Ltd: Kanata, Ontario). 99 Garneau, et al., "Climate Change and Mine Closure Planning - Influences on Design and Performance of Common Closure Technologies" 2016. 100 https://www.researchgate.net/publication/295909341_MINE_CLOSURE_2016_Proceedings_of_the_11th_International_Conference_on_Mine_Closure The SOPs for locatable and salable minerals proposed in the Bering Sea Western Interior EIS (Table K-1) provide stronger protections than those in the CYRMP (Appendix F). We urge BLM to adopt the following language changes: SOP MIN_LMM-1: Upland source areas, terraces, and inactive floodplains shall be used for mineral material extraction preferentially over active or inactive stream and river channels, deltas, wetlands, riparian zones, active floodplains, or lakes. Mineral material extraction from lakes, active floodplains, riparian zones, wetlands, deltas, and active or inactive stream or river channels should be avoided and is subject to constraints developed through project-specific NEPA analysis. When responding to a request for a material sale or identifying a source for materials on public lands, the highest priority shall be given to using existing upland material sources. Using materials from wetlands, lakes, and active or inactive floodplains will be avoided unless no feasible public upland alternative exists. Sales or permits for gravel extraction will not be permitted in known fish spawning or rearing areas. SOP MIN-LMM-2: Add the following: When no other source exists, timing or other restrictions derived from a site-specific analysis will be implemented to minimize impact to the resource(s).	The BLM has reviewed STIPs and SOPs and added some additional SOPs.
Borell	Steven	Borell Consulting Services LLC	None	176	4	Locatable minerals	209.0304.00	Open lands that are now closed to mineral entry and keep all BLM lands open to locatable mineral entry. Most REEs and the other strategic and critical minerals are locatable and it is essential that the lands be available for location.	BLM is required to analyze a range of alternatives and has chosen to examine multiple locatable mineral management options.
Borell	Steven	Borell Consulting Services LLC	None	176	5	Locatable minerals	209.0304.00	The RMP should identify and list the metals and materials that occur in the RMP area for which the U.S. is dependent of foreign nations. This will provide important justification for keeping the lands open to mineral entry and development	BLM manages lands based on the multiple use mandate which states that the resources and uses on public land must be utilized in a balanced combination that will best meet the needs of the people. The RMP/EIS proposes to make much of the planning area available for metals and minerals mining.
Crockett	Deantha	Alaska Miners Association	None	199	7	Locatable minerals	209.0304.00	Open (or keep open) all BLM land to Locatable Minerals. We are especially concerned that areas with known and likely critical and strategic minerals, including Rare Earth Elements, be open to mineral entry and exploration, or made available for conveyance to the State, especially the Ray Mountains and areas along the Ray River valley.	BLM manages lands based on the multiple use mandate which states that the resources and uses on public land must be utilized in a balanced combination that will best meet the needs of the people. The RMP/EIS proposes to make much of the planning area available for metals and minerals mining.
Crockett	Deantha	Alaska Miners Association	None	199	19	Locatable minerals	209.0304.00	Section 3.3.3 - Energy and Minerals - Locatable Minerals - we have extensive concerns about the failure to acknowledge the importance of and potential for development of critical and strategic minerals and REE throughout the draft plan. We also are concerned about the inadequate use of mineral resource data. Especially troubling is the failure to rely on both data from and geologists and mining experts in the Department's own U.S. Geological Survey. See our specific comments for details.	BLM reviewed and discussed the development potential of REEs and other critical minerals, including data from USGS, in **Appendix N**, Reasonable Foreseeable Development Scenario for the Central Yukon Field Office Planning Area.
Crockett	Deantha	Alaska Miners Association	None	199	22	Locatable minerals	209.0304.00	These lands have either the potential to contain valuable deposits of REEs or could provide access to such mineralized areas. Explorers have advised they will dedicate resources to find REEs if the land is conveyed to the State. This would assist in reducing our nation's nearly complete dependence for these minerals on exports from China. Providing for a domestic supply of REEs should be a critical part of a strategy to secure America's future. The nation is desperately in need of supplies of REEs to support domestic jobs and manufacturing of REE products.In a letter dated June 27, 2012 to Governor Sean Parnell (attached), then Secretary of Interior Ken Salazar acknowledged that this specific issue would be addressed in the Central Yukon RMP. See also map titled "Metal Source Provinces, Tin, REE, Tungsten" attached to this letter.	BLM manages lands based on the multiple use mandate which states that the resources and uses on public land must be utilized in a balanced combination that will best meet the needs of the people. The RMP/EIS proposes to make much of the planning area available for metals and minerals mining.
Crockett	Deantha	Alaska Miners Association	None	199	24	Locatable minerals	209.0304.00	Open (or keep open) all BLM land to Locatable Minerals (13 million acres). AMA strongly supports Alternatives C-2 and D for locatable minerals as both alternatives ensure that any land currently open to locatable mineral entry remains open, and ensures that most currently closed lands would be opened. Most of the planning area has never been explored with modern methods or technology because of the extensive mineral closures established by the 1969 land freeze, and withdrawals established starting in 1971 under ANCSA Section 17(d)(1). Therefore, the state of current knowledge of the region and its mineral potential is nearly identical to what it was in the mid-1960's - completely inadequate for making accurate estimates of mineral potential.	BLM manages lands based on the multiple use mandate which states that the resources and uses on public land must be utilized in a balanced combination that will best meet the needs of the people. The RMP/EIS proposes to make much of the planning area available for metals and minerals mining.
Crockett	Deantha	Alaska Miners Association	None	199	45	Locatable minerals	209.0304.00	Section 3.3.3 - Energy and Minerals - Locatable Minerals. AMA has extensive concerns about the treatment of critical and strategic minerals and (REEs throughout the Draft RMP. We also are concerned about the inadequate use of mineral resource data. The RMP should be revised to reflect the regional, State and national importance of the critical and strategic minerals in the planning area. These revisions should incorporate information from the references cited below. The RMP and EIS should recognize the potential adverse impacts of how each alternative and management prescription could impact the future development of these mineral resources, including national security and the nation's ability to develop essential infrastructure. Especially troubling is the failure to rely on both data from and geologists and mining experts in the Department's own U.S. Geological Survey (USGS). USGS is the mineral science arm of the Department of Interior. USGS is not listed as a Cooperating Agency and no USGS personnel are listed in the List of Preparers in Appendix B (Table B-3). Our comments below list specific reports and studies that have been completed by State and Federal agencies that were not used in development of the RMP. A concern throughout the RMP is that nearly all references to mineral development in the body of the RMP are from a negative viewpoint, evaluated only as "disturbances" of a given size or acreage, with no reference to the values of production, jobs, quality of life, contributions to U.S. supply chain security or any other positive aspect of mineral development.	BLM examined the discussion of REEs and other critical minerals, **Appendix N** (Reasonable Foreseeable Development Scenario for the Central Yukon Field Office Planning Area) includes best available science including a number of studies produced by USGS and AKDGGS. USGS was provided the opportunity to review and comment on the project, and the opportunity to join the project as a cooperating agency. Both USGS and AKDGGS coordinated with the BLM on an assessment of locatable mineral potential and development potential in the Central Yukon Field Office that was conducted prior to commencing the RMP/EIS, that assessment as used to inform **Appendix N** and the RMP/EIS. The socioeconomics section includes values associated with mineral development production and employment in the planning area.

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Crockett	Deantha	Alaska Miners Association	None	199	48	Locatable minerals	209.0304.00	Appendix Section N.8 summarizes locatable mineral potential and projections. Map N-6 indicates locatable potential as high (=10), medium (4-9), or low (1-3). The latter 2 categories directly contradict the appendix text which says (p. N-17, 18) that scores of 1-5 are "low", and 6-9 are "moderate". The majority of areas are indicated as a rating of zero "considered to have no locatable mineral potential" (page N-17), which is a geologically indefensible categorization. No indication is given for what the "1-5" rankings measure or summarize, nor is there any indication of the process by which these ranks were created. This entire approach and discussion is misleading. Lack of discovery does not mean valuable mineral deposits are not there. Lack of discovery also has no bearing on the probability of finding such deposits in the future. There has been very little exploration in the plan area because most of the area has been closed to mineral entry and exploration by various land withdrawals in place since the late 1960s. As a result, none of the modern exploration tools developed in the last 50-plus years have been utilized. Throughout the world new discoveries are made even in areas where there has been extensive exploration and mining. Additionally, as technology advances for exploration, mining and metallurgical processing, deposits that were once not economic often become valuable operating mines. The key message here is that the lands should be kept open to mineral entry to ensure the nation has the metals it needs for now and in the future.	BLM examined **Appendix N**, corrected errors in the potential ranking scale, and added the location of an explanation of how the mineral development potential was developed.
Crockett	Deantha	Alaska Miners Association	None	199	50	Locatable minerals	209.0304.00	The following information and reports need to be reviewed by BLM in developing a revised or final RMP. USGS Open File Report 2015-1021. This USGS report "GIS-based identification of areas with mineral resource potential for six selected deposit groups, Bureau of Land Management Central Yukon Planning Area, Alaska" was prepared specifically for the CYMP area, yet most of this information is not reflected in the data and maps in the Draft Plan and EIS: https://pubs.er.usgs.gov/publication/ofr20151021 The report covers 6 critical mineral deposit types. The plates, which are attached to the USGS Report should be part of the planning document, and a large part of BLM analysis of minerals (plus phosphate etc.) should be based on this report, as it was done specifically for BLM by the mineral science agency in DOI. The USGS analysis supports the Federal administrations' "Made in America" and "Supply Chain" Executive Orders (EO 14-005 and EO 14-017]) as well as the push for the green energy.	BLM reviewed the referenced report in the document in **Appendix N**, Reasonable Foreseeable Development Scenario for the Central Yukon Field Office Planning Area, cited as Jones et al. 2015. The results were summarized and the REE development potential was discussed in that location.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	62	Locatable minerals	209.0304.00	One particular issue of concern is that placer miners can explore existing claims by performing surface disturbing activities on areas up to five acres without a plan of operations or the guidance of permit oversight. The impacts of permitted placer mining on watersheds and riparian habitat have been documented in several BLM studies, including in the Eastern Interior RMP (EIRMP p. 427, Arnett 2005).	In keeping with the requirements of the Mining Law of 1872 as amended and the Code of Federal Regulations, BLM will continue to require a Notice for activities considered Notice Level operations on existing claims, including surface disturbing activities on areas up to five acres.
Crockett	Deantha	Alaska Miners Association	None	199	51	Locatable minerals	103.0500.00	Existing Studies that were not considered in developing the RMP. The studies that have been completed on the area are not referenced in the RMP (and should be). These include: a. Herried, G., Regional Geochemistry of the Bettles Quadrangle, 1 Sheet, Alaska Division of Geological & Geophysical Surveys. 1974. b. Brosge, W.P., Reiser, H.N., and Yeend, W.E., Reconnaissance Map of the Beaver Quadrangle. U.S. Geological Survey. Miscellaneous Field Studies, Map M.F.-525, 1973, 1 sheet, 1:250,000 scale. c. OFR 59-83 Reconnaissance of Tin and Tungsten in Heavy Mineral Panned Concentrates Along the Trans-Alaska Pipeline Corridor, James C. Barker. USBM. d. Investigation of Tozimoran Placers, Field Report, J. Barker and D. Warner. October 1985. e. IC 9104 Tin Reconnaissance of the Kantui and Hodzana Rivers Uplands, Central Alaska. James C. Barker and Jeffery Y. Foley. USBM 1986. f. OFR 34-91 Investigation of Tin-Rare Earth Element Placers in the Ray River Watershed. James C. Barker. USBM. g. Barker, J.C. Formation of Tin Placers Associated with Downcutting of the Ray River Fissure Basalts. 1991. In Annual Short Notes on Alaskan Geology. Alaska Division of Geological & Geophysical Surveys. h. Evidence for Geothermal Tungsten and Germanium Mineralization in Eocene Coal and Associated Sediments, Fort Hamlin Hills area, Interior Alaska. 2006. Alaska Division of Geological & Geophysical Surveys Preliminary Interpretive Report 2006-1.	Not all studies that are reviewed and considered by the BLM end up being referenced in the document, only the most relevant are cited.
Spindler	Mike	The Wildlife Society	None	83	6	Methodology for Impacts Analysis	103.0700.00	It is important to apply AIM to both Ecological Benchmarks and the more intensively-managed multiple use areas outside of the Benchmarks in order to compare effects of multiple use and climate change. In order for these comparisons to be valid the levels and types of multiple uses permitted within Benchmarks must be clearly defined in Appendix G for the final RMP/FEIS. The SOPs in Appendix F (pg. F15) must specify management prescriptions required to be applicable to all activities and define levels of ROW avoidance/exclusion, ATV use levels, and extent of surface disturbance --- allowing no more than 5% reduction of habitat intactness. The RMP/DEIS proposes to allow up to 15% reduction of intactness that may impede the ability of the benchmark to serve as a control to compare with more intensive uses outside the benchmark.	Benchmarks would allow any type of multiple use not expressly prohibited in the RMP.
Little	Suzanne	The Pew Charitable Trusts	None	98	6	Methodology for Impacts Analysis	103.0700.00	Few other BLM planning areas in the United States have more resident Tribes with a rich history of customary and traditional use of planning area land than the Central Yukon planning area. BLM did not include a trained anthropologist on the planning team to evaluate impacts on Indigenous people's customary and traditional use of the land. The agency also did not include an evaluation of the proposed plan's impacts on the wild-food economy or those living so-called "traditional way of life". Going forward, anthropological expertise should be added to the Central Yukon planning team.	The RMP evaluates impacts on Subsistence Use (Section 3.5.2 of the Draft RMP/EIS) and Social and Economic Conditions (Section 3.5.3 of the Draft RMP/EIS) and includes an analysis under Section 810 of ANILCA (**Appendix R** of the Draft RMP/EIS).
Heyano	Nina	Tozitna Limited	None	167	17	Methodology for Impacts Analysis	103.0700.00	4. A firm, well-thought-out budget must be determined so this plan is real, implemented, and not a "paper exercise." The budget must be based on management priorities for the area. 5. An area-wide "sub plan" to protect water quality from both point and non-point pollution sources. 6. A comprehensive cultural resource inventory. 7. A list of important unanswered questions needs to be developed, and a process for them to be answered established on a priority basis. This needs to be a constantly (forever) on-going part of management for these lands.	The alternatives evaluated in the RMP/EIS contain the land use plan components identified in BLM Handbook H-1601-1.
Heyano	Nina	Tozitna Limited	None	167	17	Methodology for Impacts Analysis	103.0700.00	We feel that this planning process needs the following: 1. Establish a baseline inventory on many environmental factors. This would be in concert, and consistently designed, with other adjacent federal and state agencies with such inventories. Examples would include hydrology, water quality, vegetation, permafrost, fisheries, wildlife "indicator" species and conditions. An inventory of BLM subsurface estate resources is also necessary. 2. An on-going TEK effort that is collected and utilized.	The alternatives evaluated in the RMP/EIS contain the land use plan components identified in BLM Handbook H-1601-1.
Crockett	Deantha	Alaska Miners Association	None	199	86	Methodology for Impacts Analysis	103.0700.00	A fundamental issue that we have with the EIS is the suggestion that many types of development (mining, ROWs, other infrastructure, etc.) are not compatible with environmental protection especially in the designated "high value" areas. This is evident in the summary language for Alternative B, which states that it emphasizes the protection of resource values over other uses. Specifically, the extent of allowable disturbance is suggested as an NEPA "indicator" of environmental effects. The impact summaries consistently equate acreage protected to level of impacts. This creates a public perception that by allowing more activities in these areas, resources will not be protected, and more effects will occur. We believe this a very simplistic and misleading finding that needs to be corrected in the Final EIS. These issues are magnified in several ways. For example, the "high value" areas are very large, e.g., High Value Watersheds (HVWs) cover the entire floodplains of large watersheds. As such, almost any linear project in the region is likely to cross a "high value" area. Second, there is no context to the analysis, e.g., would a single crossing of or limited material site within an HVW cause a significant impact? We strongly suggest this is typically not the case especially since most of the area covered by the RMP is currently pristine and widespread future development is highly unlikely. The EIS provides few if any examples of where existing, modern mineral development projects are creating significant effects on high value areas that suggest a higher level of protection is needed beyond the current levels of protection.	The intent of a land use plan is to analyze large scale allocations, and the effects are analyzed on this level as opposed to at a project level. At the RMP level, there is a reasonably foreseeable development scenario for mineral development, but not for undertakings such as ROW development. In this case, potential impacts must be analyzed since specific impacts are not known for all areas that the RMP applies to. Acres of allocations are an indicator of the potential for impacts, the area where they could occur, but the analysis does not assume that all acres would be disturbed. The impact analysis includes description of the types of impacts that could result from an activity and what indicators for these impacts may be, including units of measure where possible (see **Appendix M**, Approach to the Environmental Analysis and Chapter 3.2.3, Water Resources). Condition thresholds for aquatic and riparian resources are detailed in Section H.4, Desired Conditions and Objectives, of **Appendix H**.

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Crockett	Deantha	Alaska Miners Association	None	199	87	Methodology for Impacts Analysis	103.0700.00	We appreciate that BLM has tried in the EIS to provide some context to the impact analysis, including (1) using terms like "potential" impacts to resources, (2) noting that the area is currently pristine and widespread development is unlikely under any alternatives, and (3) all proposed development activities would be subject to project-specific NEPA analyses and Federal permitting as well as a range of State permitting requirements and protections. However, these considerations are inconsistently referenced and not fully discussed for each resource area, and acreages protected versus potentially disturbed are overemphasized when comparing the alternatives.	The intent of a land use plan is to analyze large scale allocations, and the effects are analyzed on this level as opposed to at a project level. At the RMP level, there is a reasonably foreseeable development scenario for mineral development, but not for undertakings such as ROW development. In this case, potential impacts must be analyzed since specific impacts are not known for all areas that the RMP applies to. Acres of allocations are an indicator of the potential for impacts, the area where they could occur, but the analysis does not assume that all acres would be disturbed. The impact analysis includes description of the types of impacts that could result from an activity and what indicators for these impacts may be, including units of measure where possible (see **Appendix M**, Approach to the Environmental Analysis).
Siekaniec	Gregory	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	206	20	Methodology for Impacts Analysis	103.0700.00	We support the SOPs proposed in Appendix F and acknowledge that if implemented will help minimize impacts to Service trust resources from the BLM's actions and authorized activities. However, it is unclear in the RMP specifically which SOPs are required, and which SOPs are not required, and under which circumstances. We find the SOPs to contain language that is either unclear or in effect makes them discretionary. Without further clarification, we infer the impacts described in the DEIS likely underestimated the totality of the impact to a particular resource. Additionally, we understand selection of individual SOPs for an authorized activity are made on a case-by-case basis and are at the discretion of the Authorized Officer. SOPs are a critical management tool used during project implementation to help protect fish, wildlife, and their habitats, including water quality and quantity delivered to downstream NWRs, and Federal subsistence opportunities. To ensure impacts to Service trust resources from activities are avoided or minimized to the greatest extent practicable, we recommend the BLM include in the RMP a process to coordinate with the Service on site-specific activities and details that may impact our trust resources; notably activities adjacent to NWRs and within watersheds upstream from NWRs. Also, we urge the BLM to develop a more robust mitigation approach to ensure protections to Service trust resources by rewriting SOPs to be more concise and less discretionary, making certain SOPs a requirement for all authorized activities with the potential to impact trust resources, or alternatively, utilizing Required Operating Procedures rather than SOPs for this RMP.	SOPs in **Appendix F** are not discretionary insofar as an SOP would be required by specific project conditions.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	91	Methodology for Impacts Analysis	103.0700.00	The mixed language and seemingly contradictory statements described for SOPs in Appendix F-1 and Chapter 3, makes it extremely difficult for the reader to understand exactly under which circumstances the SOPs would be required. The following are some examples: In Chapter 3, BLM's approach to the impact analysis is to implement standard operating procedures (SOPs) under all action alternatives. Likewise, Appendix F, Section 2, Standard operating procedures, states that "SOPs apply (concerning resources that are potentially affected by the action) to all actions on public land, whether the BLM implements them or if it authorizes them and they are implemented by another individual, organization, or agency." BLM states the development of SOPs was based on the Alaska Statewide Land Health Standards...." "The SOPs are requirements, procedures, management practices, and design features that the BLM will use to protect resources." Leasing stipulations are also requirements, and "SOPs and leasing stipulations generally do not restate existing requirements in regulations or laws, including state laws." The mixed messages regarding SOPs (are they guidelines or requirements), the ambiguous language, and the uncertainty of whether or not applicable SOPs are required for non-discretionary actions like mining, lead us to believe that the impact analysis was conducted under the assumption that SOPs would be required. Please explain under each alternative, and for each of the resource impact analysis, did the impact analysis assume the SOP would be applied or not? Until we have a better understanding of this, we are to assume that the impacts described in this DEIS likely underestimated the totality of the impact to resources. Further, we understand the need for flexibility in managing permitted operations/resources; however, it is still possible to allow for resource development while still requiring SOPs. To alleviate the uncertainty associated with SOP application, we urge the BLM to incorporate all SOPs in the plan itself, as Management Actions, and eliminate ambiguous and discretionary language (per BLM's Land Use Planning Handbook, Management Actions: "Land use plans must identify the actions anticipated to achieve the desired outcomes, including actions to maintain, restore, or improve land health."). Further state explicitly if these SOPs now turned into management actions are required or not.	SOPs in **Appendix F** are not discretionary insofar as an SOP would be required by specific project conditions.
Richards	Frank	Alaska Gasline Development Corporation	None	138	2	Mineral materials	209.0303.00	Restrictions in Material Site Development - Changes in allowable material site development locations and access roads thereto have potential to make the Alaska LNG Project unconstructable. Issue: a. The Alaska LNG Project filed a map book, tables, legal description, and POD with BLM April 17, 2017 that showed the location of expected gravel material sites for pipeline construction. Gravel is needed for a variety of project purposes (roads, pads, additional workspaces). The Alaska LNG Project has potential material sites and associated access roads identified along the length of the pipeline to allow adequate gravel to be available and to minimize transportation impacts (emissions, traffic, etc.). b. BLM's restrictions on material site development would modify access to materials that are critical to pipeline construction. For example, the proposed restrictions in the Toolik Lake area under Alternatives B and C1 would close four of the proposed material sites identified for the Alaska LNG Project and Alternatives A and C2 would close two sites. The four sites and their access roads are not greenfield developments. They are existing sites and roads. c. Impacts of identified gravel site use have already been considered and incorporated into the Alaska LNG Project EIS, led by FERC with BLM as a cooperating agency. Resolution: AGDC requests BLM make it clear the material sites and access roads thereto identified in the Alaska LNG Project POD, mapbook, tables, and legal description, including the four sites in Toolik Lake, may be used for material site development for the Alaska LNG Project regardless of changes in the RMP. The Alaska LNG Project EIS already considered potential impacts of development of those sites as part of the project, and taking away the option to use those material sites and access roads will negatively impact constructability of the project. In addition, the sites in the Toolik Lake area are already existing material sites with access roads.	The implementation of new resource management allocations will not revoke previously issued permits for mineral material development.
Crockett	Deantha	Alaska Miners Association	None	199	68	Mineral materials	209.0303.00	F.2.9 Mineral Materials and Locatable Minerals (MIN-LMM) SOP MIN-LMM-1 Language is acceptable and it is good to see that BLM recognizes that the permittee is "subject to constraints developed through project-specific NEPA analysis. SOP MIN-LMM-5 This concerns closure of mining operations and the BLM requirement to remove all improvements, materials and substances including scrap steel, derelict mining machinery, and parts. This should be limited to what the operator brought in. Many mining claim areas have had historic mining on them and there is a lot of historic "iron" left on these sites. Perhaps this whole issue of closure should be left to the mining operations plan.	BLM has an interest in ensuring the complete reclamation of end-of-life mining sites, historic equipment included.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	66	Mineral materials	209.0303.00	We request BLM prioritize discreet regions for intensive management to limit the development footprint. If lands are open to mining there will likely be future requests to put in access to claims. Approval would likely trigger a predictable expansion of the human footprint and inevitable changes that accompany such expansion (Cooke 2017).	Mining is driven primarily by the location of minerals; BLM has limited jurisdiction under the Mining Law of 1872 to limit some forms of mining.

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Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	76	NEPA	208.0700.00	One notable missing mitigation strategy not addressed in the latest version of the Plan is that of compensatory mitigation. This strategy could be a very useful tool in compensating for lost ecosystem function and services across alternatives, as well as addressing an appropriate balance of competing needs, interests and values required to meet the FLPMA mandate of multiple-use and sustained yield. We deem the inclusion of compensatory mitigation as a necessary tool to be incorporated into the management decision framework of this Plan so as to mitigate the foreseeable impacts related to the preservation of wildlife, ecosystem function and their related services that are necessary to meet both BLM's mission and Refuge Purposes. Chapter 2 (p. 2-1) of the draft Plan states that: Under all alternatives, the Bureau of Land Management (BLM) will apply best management practices (BMPs) and other site-specific mitigation to all resource uses, as appropriate, and will employ adaptive management per U.S. Department of the Interior and BLM policy. The BLM is directed to identify, consider, and, as appropriate, require mitigation to address reasonably foreseeable impacts on resources from public land uses consistent with the mitigation hierarchy, as defined in the Council on Environmental Quality regulations at 40 Code of Federal Regulations (CFR) 1508.20 and with Department of the Interior and BLM policy.	As defined in the glossary for this Proposed RMP/Final EIS, the term “mitigation” as used throughout the Proposed RMP/Final EIS is inclusive of avoidance, minimization, restoration, and compensation unless specified otherwise. The following language has been added to Section 2.1 to clarify the compensatory mitigation strategy under all alternatives: “Specific compensatory mitigation measures would be developed before authorization of implementation level actions. This would be done in alignment with the resource objectives of this RMP (see Tables 2-2 through 2-27), and in compliance with the most recent regulatory guidance. Currently this includes the BLM Mitigation policy (BLM 2021a), relevant manuals and handbooks (BLM 2021b and 2021c), and the Memorandum of Agreement (MOA) between the EPA and the Department of the army (Army and EPA 2021) related to mitigation sequence for wetlands in Alaska under the Clean Water act.” The above-mentioned regulatory guidance will be in effect and adhered to regardless of whether a Record of Decision is issued for the RMP/EIS or not.
Lavin	Patrick	Defenders Of Wildlife	None	85	1	NEPA	103.0000.00	we respectfully request that BLM suspend its NEPA review process pending an assessment of the alignment between the draft RMP/DEIS and preferred alternative and the new administration's public land management goals and priorities. Following this assessment, we further request that BLM issue a public notice regarding how it intends to proceed and reopen an appropriate public comment period at that point. As is common following a change in federal executive branch leadership, the incoming Biden administration likely brings different experiences and priorities to public lands management issues than those pursued by the previous administration. It is difficult to immediately identify precisely where those differences may lie because key positions in the new administration take time to fill. A new Secretary of the Interior is not quite yet confirmed, for example, and it will likely be some time before a new BLM Director is in place. These transition-related challenges underlie Secretarial Order 3395, which suspends the delegation of authority to Department of the Interior Bureaus and Offices to, among other things, issue, revise or amend Resource Management Plans (RMPs). This pause provides an opportunity for the incoming teams at DOI and BLM to take their positions and ensure consistency between the policy direction provided in decisions such as RMP revisions and the new administration's management direction and priorities. Given the acute differences between the present and prior administrations with regard to public land management philosophy that was made plain on even on the campaign trail, it seems likely that, once in place, a new management team may seek to propose a different direction for the Central Yukon RMP. If so, it would likely solicit additional input from stakeholders to develop and vet potential new areas of emphasis, rendering public comment efforts geared toward the current DEIS and preferred alternative not particularly helpful and likely not a good use of public and agency time and resources. With the need for key administration positions to be filled to guide the policy direction, and substantial changes in plan content a distinct possibility, it is advisable to pause the NEPA process pending the assessment described above. BLM should reopen public comment when documents are available for public review that reflect the new administration's desired management direction and points of emphasis for the Central Yukon planning area. Doing so will reduce the overall burden on the participating public and better ensure the relevance and value of the public input provided to the agency.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The public was able to provide comments on the Draft RMP/EIS and provide feedback pertaining to NEPA adequacy, including the range of alternatives considered. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS.
Gestring	Bonnie	Earthworks	None	146	63	NEPA	103.0000.00	Confusion about planning area changes. The Notice of Intent for Scoping Notice was published in the Federal Register for the Central Yukon Resource Management Plan on June 14, 2013. The Scoping process for the Central Yukon Plan concluded with BLM's publication of the Scoping Summary and Report on March 25, 2015. The Central Yukon Scoping states that the Nulato Subunit was transferred to the Anchorage Field Office during preparation of the Scoping Report and will be covered by the Bering Sea-Western Interior RMP. BLM States, "All future planning steps (for the Nulato Subunit) will be completed as part of the BSWI planning effort. Nulato Hills was identified as a subunit in this scoping report to facilitate transfer of this area to the BSWI RMP." Seven months after the Central Yukon Scoping Summary and Report was released, another Federal Register notice was published by BLM on October 7, 2015 announcing a change in the western boundary of the planning area. The originally-noticed Central Yukon planning area contained 16 million acres of BLM-managed land and the amended planning area contains 13.1 million acres, a decrease of 2.9 million acres. According to the October 2015 Federal Register notice, the change was 'effective January 9, 2015'. The scoping process was concluded before the official notice of the planning area boundary change, causing confusion about which BLM office was handling scoping comments for which plan. The land removed from the Central Yukon planning area and added to the Bering Sea-Western Interior planning area includes at least six large regionally and locally important watersheds including the Nulato River, the Kateel River, the Tagagawik River, the Inglutalik River, the Ungalik River, the Gisassa River and the Shaktoolik River. The reconfiguration of the planning area maps created great confusion in communities in the western part of the Central Yukon planning area and BLM provided little to no information to community leaders about that change and what it would mean. The BLM Planning Handbook states that, "The land use planning process is issue-driven. Scoping is a collaborative public involvement process to identify planning issues to be addressed in the planning process issues include resource use, development and protection opportunities for consideration in the preparation of the RMP." Communities and Tribes including Koyukuk, Nulato, Koyuk, Galena, Louden provided comments at scoping under the Central Yukon plan that was transferred to the Bering Sea-Western Interior planning area, giving critical issue or land protection information to BLM that should be addressed in the planning process as required in BLM's Planning Handbook and 43 CFR 1610.2. According to federal law regarding Resource Management Planning, 43 CFR 1610.2 (c), ... sets requirements for scoping and public participation. Many requirements of this law were not met for communities outside the original planning area at scoping for the Bering Sea Western Interior plan at scoping because those communities were not officially notified of a Bering Sea-Western Interior planning process until after the close of scoping which occurred well before notice of the planning area boundary change.	While the scoping period is intended to identify issues to be addressed, the BLM welcomes input throughout the planning and NEPA process. The BLM has also engaged in outreach to tribes through consultation efforts, providing additional opportunities to hear input. Furthermore, both the comment periods for the Bering Sea-Western Interior RMP and for the Central Yukon RMP served as opportunities for the public to provide input.
Heyano	Nina	Tozitna Limited	None	167	15	NEPA	103.0000.00	It will be very important to establish a monitoring program. This program will not only measure environmental changes from a baseline, but also responses to changes in management policy and actions. Factors will be objective and sensitive to changes so effects can be monitored and adjustments made. This program will also allow the establishment of trends for several factors as related to decision-making. This is one of the most important comments from us regarding this Plan.	The BLM engages in monitoring at both a resource level and a plan level to gauge effectiveness of plan decisions. This plan-level monitoring is outlined in Section V of the Land Use Planning Handbook (H-1601-1). Resource monitoring is undertaken by program. Such monitoring methods are not plan-level decisions are not included in the RMP.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Crockett	Deantha	Alaska Miners Association	None	199	41	Paleontological Resources	208.1000.00	Section 3.2.10 Paleontological Resources - PFYC - Potential Fossil Yield Classification. This section lacks scientific justification and should be modified significantly in the final RMP. The draft states "A Potential Fossil Yield Classification (PFYC) model for Alaska is in development. Preliminary PFYC values have been assigned to the mapped geologic units in the planning area (Breithaupt 2019)" (emphasis added). This (Breithaupt, B. 2019) reference is to a single internal email to a BLM GIS specialist and constitutes the entire basis for the PFYC classification scheme. The RMP contains no description of Classes 1-5 or how they were derived, no information on the ages, lithology or geologic units they include, nor does it acknowledge the very preliminary state of geologic mapping and related fossil information in most of the CYMP region. The RMP states (p. 3- 103) that "there is no comprehensive BLM geodatabase of known fossil locations", although this information (in a GIS format) is readily available from USGS Alaska Science Center geologists. This PFYC "system", developed by BLM, has undergone no scientific review, has no available documentation, and is not in use in any university system, scientific, or land management agency. Management decisions should not be based on a non-peer reviewed, "analytical method" and, therefore, this PFYC system should not be used in this RMP. This value system suggests that it evaluates "significant paleontological resources and the degree of management concern". However, it appears to be concerned only with vertebrate animal and certain large invertebrate species. Without identified data sources or link between geology and the established "classes", the public has no idea what is being classified. It should be titled "macrofauna" or "vertabrate fossil" categorization, because it does not address the microfossils (diatoms, sponges, radiolaria, conodonts etc.) which provide the majority of geologic age and sedimentary setting information, and makes no mention of flora (useful in establishing coal ages and settings). Also, every example of "impacts" to paleontological resources listed in the document are negative and seem targeted to justifying the most restrictive management possible. For example, it states that climate change will expose fossils to "weathering actions" and "erosion". Exposure makes them "susceptible to unauthorized collection". Mining, infrastructure and ROW development, and recreation could cause "damage or destruction" of fossils or "disturbance of …stratigraphic context", and increased accessibility to "looting or vandalism," etc. Land exchanges or conveyance to "other" entities can make them "susceptible to loss or degradation". In fact, the 8 pages of the document dedicated to paleontology (more than the entire "energy and minerals" section) lists the perceived adverse impacts of all alternatives upon paleontological resources. The fact that increased exposure of fossil-bearing units that would otherwise never be found, is most often to the good when considered from a scientific knowledge and geologic mapping viewpoint is completely ignored. In summary, this section is lacks adequate justification and should be substantially re-written.	The BLM uses the PFYC system where possible for land use planning efforts and for the preliminary assessment of potential impacts and proper mitigation needs for specific projects. It is intended to provide a tool to assess potential occurrences of significant paleontological resources. It is meant to be applied in a broad approach for planning efforts, and as an intermediate step in evaluating specific projects. The PFYC system provides a uniform tool to assess potential occurrences of paleontological resources and evaluate possible impacts (See BLM IM 2016-124). Locality information is not normally used in an RMP level document and is also incomplete and inconsistent across the planning area. Further evaluation of the potential for the presence of resources is required for site-specific actions. Text was added to **Appendix M** (the Approach to the Environmental Analysis) and Chapter 3 to further highlight the positive aspects of potential paleontological resource and locality discovery due to development and recreation.
Mannix	Jacob	Backcountry Hunters & Anglers	None	185	11	PLO 5150	209.0400.00	Recreation: Currently the BLM manages 30 special recreation permits in the planning area, 9 for hunting guiding and 21 for tour and adventure activities. The BLM's DEIS states that there has been an increase in visitation to BLM managed lands in the planning area and visitation is expected to increase (DEIS, pg. 3-142). The revocation of PLO 5150 may negatively impact the unique opportunities for recreation if the outer corridor is conveyed to the state and there is an increase in development projects.	The analysis has been revised to clarify the potential impacts associated with the revocation of PLO 5150, specifically the implications on recreation opportunities in the BCA and SRMA.
Mannix	Jacob	Backcountry Hunters & Anglers	None	185	14	PLO 5150	209.0400.00	Alaska BHA supports the adoption of the Dalton Corridor Backcountry Conservation Area (BCA) as identified in Alternative B. The flexibility of BCA's as a management tool provide room for necessary multiple-use management while supporting the conservation of valuable habitat areas for fish and wildlife. The adoption of the Dalton Corridor BCA would help the Central Yukon Field Office meet fish, wildlife and recreation objectives and achieve the agency's multiple use and sustained yield mandate. Furthermore, it is important to note that if the outer Dalton Corridor land withdrawal (PLO 5150) is revoked, as proposed in Alternative B, that the BCA, also proposed in Alternative B, would be nullified. We recommend that this conflict within Alternative B be remedied by maintaining PLO 5150 as proposed in Alternative A, and thus allowing the adoption of the BCA.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150 or any other PLOs. The analysis has been revised to clarify the potential impacts associated with the revocation of PLO 5150, specifically the implications on recreation opportunities in the BCA and SRMA.
Mannix	Jacob	Backcountry Hunters & Anglers	None	185	26	PLO 5150	209.0400.00	Alaska BHA supports the adoption of the Dalton Corridor Backcountry Conservation Area (BCA) as identified in Alternative B. The flexibility of BCA's as a management tool provide room for necessary multiple-use management while supporting the conservation of valuable habitat areas for fish and wildlife. The adoption of the Dalton Corridor BCA would help the Central Yukon Field Office meet fish, wildlife and recreation objectives and achieve the agency's multiple use and sustained yield mandate. Furthermore, it is important to note that if the outer Dalton Corridor land withdrawal (PLO 5150) is revoked, as proposed in Alternative B, that the BCA, also proposed in Alternative B, would be nullified. We recommend that this conflict within Alternative B be remedied by maintaining PLO 5150 as proposed in Alternative A, and thus allowing the adoption of the BCA.	The analysis has been revised to clarify the potential impacts associated with the revocation of PLO 5150, specifically the implications on recreation opportunities in the BCA and SRMA.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	16	PLO 5150	209.0400.00	Recreation: Unique recreational opportunities along the Dalton Highway could also be threatened by increased surface-disturbing development activities if the outer corridor is conveyed to the State of Alaska. The Central Yukon Field Office manages approximately 30 special recreation permits for activities ranging from tour and adventure activities to commercial hunting services. Visitation is expected to increase across several key sectors, including guided tours and independent travel-unlike many other regions of the state, the planning area boasts a robust winter visitor economy-hunting, and environmental education (DEIS, p. 3-142). The DEIS does not include the projected economic impact of revoking PLO 5150 on BLM permit holders or small businesses that depend on the continued management of the outer Dalton Corridor by the BLM. We urge the BLM to consider these impacts during the plan revisions.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The Proposed RMP/Final EIS only proposes revocation of effective selections."
Reakoff	Jack	No organization name	None	8	2	PLO 5150	209.0202.00	Congress and the President in the 1980 considered all Federal lands in Alaska during the multiyear deliberation of the Alaska Interest Lands Conservation Act (ANILCA). Congress did not eliminate the PLO 5150 Utility Corridor withdrawal of 1971. The Congress and President affirmed retaining the over 2.1 million acres contained in the utility corridor. ANILCA is clear as to the continued to prohibition of selection by the State of Alaska. The Utility Corridor was reserved in 1971, is appropriated, reserved and not legally vacant to State selection under the Alaska Statehood Act, whether top filed or not. The over 2.1 million acres are unavailable for the State of Alaska to legally select. It is not legal for the Secretary of Interior to lift the PLO 5150 in violation of Congressional intent, and convey said lands to the State of Alaska. Alternative A is the only presented alternative that is legal and statutorily viable. If the BLM -RMP/EIS is revised after valid public comments are considered, all of the updated alternatives needs to have the NO repeal or no lifting of the PLO 5150.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals.
Reakoff	Jack	No organization name	None	8	3	PLO 5150	209.0202.00	ANILCA sec.1322 (a) requires management outside of conservation units in accordance with the Federal Lands Policy Act of 1976. Opening PLO 5150 and conveying more lands to the State of Alaska would be in violation of the "Federal Land Policy and Management Act" of 1976. Sec. 102. [43 U.S.C. 1701] (a) The Congress declares that it is the policy of the United States that- (1) the public lands be retained in Federal ownership, unless as a result of the land use planning procedure provided for in this Act, it is determined that disposal of a particular parcel will serve the national interest; " It is not in the National interest to allow the State of Alaska selection of any lands in the utility corridor illegally. The lands the State has proposed for selection are choice oil and gas lands or minerals worth potentially billions of dollars to the United States.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from recommending revocation (in part or full) to no recommendation regarding PLO and ANCSA withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place. **Appendix R** analyzes the effects of the alternatives, including the alternatives about PLO 5150, on subsistence uses.

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Reakoff	Jack	No organization name	None	8	4	PLO 5150	209.0202.00	The Utility Corridor (PLO 5150) is the jewel of the Central Yukon BLM management area. It is a National treasure. The transportation corridor has truly multiple uses currently. The BLM lands provide some of the best road access scenery in Alaska, provide sport and subsistence use opportunity, mining and other commercial uses. There are statutory as well as other compulsory reasons to recommend in the preferred Alternative not to lift any portion of the PLO 5150 utility due to Congressional intent in statute. The is no legal way to not convey any Top Filed lands to the State of Alaska as mandated in congressional guidance found in FLPMA and ANILCA. There is gross error in the Alternatives B-D, by BLM preferring Alternative C-2, recommending that the Secretary of Interior to commit a violation of Federal laws by lifting/ and repeal of the PLO 5150 to allow state selection of the utility corridor. I suggest that the BLM forward this issue up to the US Attorney Generals office for proper legal interpretation of applicable Statutes. Subsequently I would recommend a blend of alternatives without any recommendation to the Secretary of Interior to lift any portion of the Utility Corridor PLO 5150. A blend of alternative B with other considerations fish and wildlife habitat protections found in other Alternatives, to providing provisions for prudent multiple uses, would be my personal preferences in the updated CY-RMP/EIS analysis for final ROD alternative.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full), to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Webster	Joel	No organization name	None	41	4	PLO 5150	209.0202.00	The final RMP should retain long-standing public land orders to ensure that some lands remain withdrawn from mineral entry. All of the "action alternatives" included in the draft plan revoke at least part of Public Land Order 5150 (Dalton Highway Corridor) and all ANCSA 17 d-1 lands. These areas-7.4 million acres combined-have been withdrawn from mineral entry since the 1970s. Revoking the PLOs would negatively impact subsistence access for rural residents in the planning area. Recreational hunting opportunities could also be threatened by declines in wildlife if these lands are conveyed to the State of Alaska and later developed. -Recommendation: Maintain PLO 5150 in its entirety (2,138,000 acres) as proposed in Alt. A. -Recommendation: Maintain all ANCSA d-1 withdrawals (5,253,000 acres) as proposed in Alt. A.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full), to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Schoppenhorst	Heidi	Boreal Lodging	None	46	1	PLO 5150	209.0202.00	If the PLO 5150 is lifted and the State is allowed to acquire these lands, it would not only be illegal, but would totally destroy the current level of diverse use and the fragile quality of lands and populations along this route forever. Even though this highway was created as a utility corridor, it is still the only highway in the USA that reaches to the Arctic coast and is important in its current condition for all citizens and non-citizens alike. This is special country, and since the Dalton is the only road into it, whatever happens from it will affect the outlying lands adjacent to this route as well. The integrity of designated sister agency lands would be severely compromised in any of your other Alternatives. As you know, the BLM managed corridor is also bordered by a premier wilderness national Park, and the largest wildlife refuge in our system. Although BLM is an agency of diverse use management, I feel it is imperative that the established Federal management of these contiguous lands be maintained to ensure original intent of designation & integrity of purpose for all citizens of the US, and general public.	The RMP does not revoke the withdrawal, but instead recommends that the Secretary revokes the withdrawal. The Secretary has legal authority to revoke the withdrawal. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full), to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Buss	Jordan	No organization name	None	54	4	PLO 5150	209.0202.00	No PLO 5150 withdrawals should be lifted on any lands adjacent to a conservation unit. These lands belong to the American public and have increased value given the development that occurs (or is anticipated to occur) near TAPS. Of particular importance are the Arctic National Wildlife Refuge, Kanuti National Wildlife Refuge, and Gates of the Arctic National Park and Preserve.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full), to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Raynolds	Martha	No organization name	None	74	2	PLO 5150	209.0202.00	No matter which alternative is chosen, BLM should absolutely NOT hand over ownership of land to the State of Alaska. BLM should not even partially revoke PL 5150. As is described on page 278, "The full or partial revocation of PLO 5150 would have the practical effect of removing the federal subsistence priority for residents of Coldfoot and Wiseman Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville and Stevens Village." These communities depend on subsistence resources, and would suffer if they were competing with urban Alaskans and out-of-State hunters, as is allowed under State management.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place. The Proposed RMP/Final EIS evaluates the impacts on subsistence of the State's top-filings becoming effective selection.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	49	PLO 5150	209.0202.00	As regards revocation of PLO 5150 for the entire outer Dalton Highway corridor, it seems highly imprudent to the Alaska Chapter that BLM propose the above-listed habitat connectivity areas leave federal ownership at this time, especially in light of bi-partisan support of pending federal legislation enacting wildlife connectivity corridors (116thCongress, SB 1499/HR2795, Wildlife Corridors Conservation Act). Should this action become law in the next session the PLO 5150 lands clearly have a significant national interest importance to wildlife. Furthermore, effective January 27, 2012 Executive Order 14008, Section 216, recommends the Secretary of Interior make recommendations to "achieve the goal of conserving at least 30 percent of our lands and waters by 2030." Hopefully wildlife corridor conservation measures that allow for lighter sustainable multiple uses that do not cause habitat fragmentation could count towards this national goal.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full), to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. **Appendix G**, Adaptive Management Framework, addresses connectivity issues in the planning area, including analyzing the potential impacts from locatable minerals, new rights-of-ways, and utility corridors.
Spindler	Mike	The Wildlife Society	None	83	3	PLO 5150	209.0202.00	The proposal to establish a BCA in the outer corridor, and keep the SRMA in the inner corridor could be moot if federal land ownership changes. All the action alternatives recommend PLO 5150 be revoked. If the State of Alaska assumes title and management, the BCA disappears, and even the SRMA facilities in the corridor that are important to outdoor recreation, such as signage, trails, restrooms, etc. may no longer be supported by the federal budget. Furthermore, the DEIS states: "The change in land status would also likely affect the existing infrastructure such as campgrounds and visitor contact stations; however, it is unknown if the State of Alaska would seek to take title of these lands, or the BLM retain a ROW for these facilities" (pg. 3-150). The State of Alaska currently struggles to maintain its State Parks and DOT public wayside rest areas, so it seems unlikely they could support recreation infrastructure at the same level as BLM. I believe BLM did not sufficiently consider the huge impact to outdoor recreation, Dalton Highway tourism businesses, and even the oilfield support trucking industry, in their recommendation to revoke PLO 5150. **The RMP/DEIS did not offer any solution to support the existing visitor services facilities if the State were to take over the Dalton Highway corridor. The RMP/DEIS does not indicate any commitment by any party, Federal government, or State, or any proposal for some kind of cooperative agreement or MOU to continue to support the above-mentioned infrastructure that supports the traveling and recreating public. This needs to be addressed in the final RMP/FEIS**	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from recommending revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. Alternative E would not recommend revoking PLO 5150, and would recommend partial revocation of ANCSA 17(d)(1) withdrawals to allow for allotment selection by Native Alaskan Vietnam-era veterans. The analysis in section 3.3.4 (Recreation and Visitor Services) has been revised to clarify the potential impacts associated with the revocation of PLO 5150 on recreation access, facilities, and opportunities in the potential BCA and SRMA.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Spindler	Mike	The Wildlife Society	None	83	4	PLO 5150	209.0202.00	I appreciate that BLM documented subsistence use patterns in the region (Appendix Q). But I also noted BLM did not seem to consult and consider some documents with pertinent subsistence resource information, goals, and objectives on adjacent lands (e.g. Comprehensive Conservation Plan for Kanuti NWR to the west of the Dalton, and the Stevens Village Traditional Land Use Plan to the east). Big game hunting regulations, particularly for moose, decided by the Board of Game in the Dalton Highway Corridor Management Area are the most complex in the State of Alaska. This area has easy highway access but low-productivity ungulate populations, therefore, non-rural hunters are prohibited from using firearms (bow hunt-only) and ATVs/Snowmobiles within 5-miles of the highway. On top of that are long-standing subsistence practices/dependence of residents from several villages (Wiseman, Allakaket, Bettles and Evansville) who are eligible for a subsistence priority to hunt under separate federal regulations, with no 5-mile rules and some season length advantages. All RMP/DEIS action alternatives revoke the PLO 5150 withdrawal in the outer corridor of the TAPS/Dalton Highway, further challenging an already very complex regulatory environment for hunters. The revocation would have a huge negative effect on subsistence hunters by eliminating their priority opportunity once State of Alaska priority1 top-filings are conveyed. It is also likely there would be significant pressure for the State to allow ATVs and snowmobiles. The combination of all that hunting pressure could lead to overharvest. State and Federal regulators have often reacted to such situations too late, making population recovery very challenging. The RMP/DEIS did not include analysis of this impact in the "reasonable foreseeable development" Appendix N, nor Appendix Q). Likewise, the RMP/DEIS does not offer any steps to mitigate these significant negative impacts to habitat, to non-rural hunters, and to environmental justice for the rural hunters. This is one reason why I am opposed to revocation of the PLO 5150 in the outer corridor. There are no action alternatives in the RMP/DEIS that do not recommend revoking PLO 5150, so I support the Alternative A aspect of no revocation. A possible "blend" solution might include a final alternative with all the valuable habitat connectivity corridor and subsistence areas excluded from the 5150 revocation along with simultaneous recommendation of specific FLPMA replacement withdrawals. In these areas 5150 should be kept in place until such time as replacement FLPMA withdrawals are assured.	In development of the alternatives and subsequent analysis, the BLM considered a large amount of subsistence resource information including the Comprehensive Conservation Plan for Kanuti NWR, and the Stevens Village Traditional Land Use Plan (see **Appendix D**, Relationship to BLM Policies, Plans, and Programs, **Appendix R**, ANILCA Section 810 Preliminary Evaluation, and **Appendix Q**, Subsistence). The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO and ANCSA withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place. BLM is not considering any substitute withdrawals under FLPMA in Alternative E.
Spindler	Mike	The Wildlife Society	None	83	13	PLO 5150	209.0202.00	In multiple sections the RMP/DEIS has extensive discussion about significant impacts to watersheds, landscapes, wildlife, fisheries, outdoor recreation, and subsistence caused by potential changes in land tenure, mainly revocation of PLO 5150 the Dalton Highway corridor. There should be more discussion about what strategies BLM would be employ to mitigate these impacts after the revocations.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150 or any other PLOs. Under all alternatives, the BLM would apply best management practices (BMPs) and other site-specific mitigation to all resource uses, as appropriate, and will employ adaptive management. Also under all alternatives, the BLM would identify, consider, and, as appropriate, require mitigation to address reasonably foreseeable impacts on resources from public land uses consistent with a mitigation hierarchy. The mitigation hierarchy seek to avoid, then minimize impacts, then compensate for remaining unavoidable, or residual, impacts. The Draft RMP/EIS describes SOPs, which as requirements, procedures, management practices, and design features that the BLM will use to protect resources.
Spindler	Mike	The Wildlife Society	None	83	14	PLO 5150	209.0202.00	The RMP/DEIS does not offer a reasonable range of action alternatives for this revocation. Alternatives B and C1 revoke all of the outer corridor, which is the portion with the most fish and wildlife habitat value, leaving only the most heavily impacted inner corridor in federal management. There is no alternative that revokes PLO 5150 only for the inner corridor. If the State of Alaska wants the greatest amount of economic gain and the least amount of federal oversight/interference in future developments such as gas pipelines, fiber optic cables, power transmission ROWs, then it makes more sense for the State to own and manage the inner corridor. The outer corridor should remain under BLM ownership because of its recreational, subsistence, and fish and wildlife values.	Alternative C2 recommends revoking the inner and outer corridor of PLO 5150. This is a reasonable range of alternatives and an alternative that only recommends revoking the inner is not needed in order for the BLM decision-maker to make an informed decision.
Raskin	David	Friends of Alaska National Wildlife Refuges	None	88	3	PLO 5150	209.0202.00	We recommend that BLM carry forward the Dalton Highway Special Recreation Management Area (SRMA) from Alternative A into the final alternative for the entire inner Dalton corridor north of the Yukon River crossing. Regrettably, the vision of a BCA in the outer corridor and the SRMA in the inner corridor could be negated if federal land ownership is replaced by State ownership. All alternatives but A recommend that PLO 5150 be revoked. If the State assumes management, the BCA will disappear and SRMA facilities important to outdoor recreation e.g. signage, trails, restrooms, would no longer be supported by the federal budget. The DEIS admits the change in land status would also likely affect the existing infrastructure such as campgrounds and visitor contact stations; however, it is unknown if the State of Alaska would seek to take title of these lands, or the BLM retain a ROW for these facilities. The State is unable to maintain its current parks and public waysides, so it highly unlikely that it could support recreation infrastructure at the BLM level.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150 or any other PLOs. The analysis has been revised to clarify the potential impacts associated with the revocation of PLO 5150, specifically the implications on recreation opportunities in the BCA and SRMA.
Raskin	David	Friends of Alaska National Wildlife Refuges	None	88	4	PLO 5150	209.0202.00	The RMP/DEIS did not address the huge impact to outdoor recreation of revoking PLO 5150, notably Dalton Highway tourism businesses. If BLM does retain the inner Dalton corridor, we favor development "nodes" that concentrate activities and services in specific locations without impacting scenery and habitat in the whole corridor but exempting Old Man Camp area, a historic highway crossing for the Hodzana caribou herd vital to subsistence hunters.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150 or any other PLOs. The analysis has been revised to clarify the potential impacts associated with the revocation of PLO 5150, specifically the implications on recreation opportunities in the BCA and SRMA. The BLM considered Secretarial Order, 3373, Evaluating Public Access in BLM Public Land Disposals and Exchanges in **Appendix C**, Land Tenure. Because snowmachines or boats and not roads with standard vehicles are used to access most BLM-managed lands, lands identified for disposal or exchange will not have a big impact on recreation or subsistence access.
Raskin	David	Friends of Alaska National Wildlife Refuges	None	88	15	PLO 5150	209.0202.00	PLO 5150. The most critical change in management of any alternative in the RMP/DEIS is revocation of the PLO 5150 withdrawal that supports the Dalton Highway/TAPS corridor. We oppose all alternatives (B,C1, C2, D) and support that part of Alternative A that does not revoke PLO 5150 because of the negative impacts of its revocation on wildlife and fish habitat connectivity, watershed integrity, diminished outdoor recreation and visitor facilities, and adverse impacts to rural subsistence users from reduced harvest opportunities. * The RMP/DEIS does not provide a reasonable range of alternatives if PLO 5150 is revoked. Alternatives B and C1 revoke the outer corridor with the greatest wildlife habitat values but leave only the heavily impacted inner corridor in federal management. There is no alternative that revokes only the inner corridor. The State's greatest economic gain with the least federal oversight of gas pipelines, fiber optic cables, and power transmission ROWs would be realized by State management of the inner corridor while levying the outer corridor under BLM ownership for its recreation, subsistence, and wildlife values.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150 or any other PLOs. The analysis has been revised to clarify the potential impacts associated with the revocation of PLO 5150, specifically the implications on recreation opportunities in the BCA and SRMA. The BLM considered Secretarial Order, 3373, Evaluating Public Access in BLM Public Land Disposals and Exchanges in Appendix C, Land Tenure. Because snowmachines or boats and not roads with standard vehicles are used to access most BLM-managed lands, lands identified for disposal or exchange will not have a big impact on recreation or subsistence access.

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Kron	Tom	Eastern Interior Alaska Subsistence Regional Advisory Council	None	91	3	PLO 5150	209.0202.00	The Council opposes any BLM Resource Management Plan Alternative that recommends that the Secretary of Interior violate ANILCA statute within the Utility Corridor. ANILCA is clear that the vast majority of the Utility Corridor is to remain under Federal ownership. The Customary and Traditional Federally Qualified subsistence users of the Region would be devastated without the Federal lands within the 2.1 million acre Utility Corridor. The Council believes that the transfer of the Utility Corridor to the State of Alaska is illegal. Such a transfer will result in the outright elimination of critical rural subsistence use in the area. Some communities in and near the Utility Corridor could completely lose all subsistence use of wildlife. The villages that utilize this critical area include Stevens Village, Rampart, Beaver and Minto. The Council also wishes to express its concerns with the proposed changes to the Utility Corridor management and how it will affect the Porcupine Caribou Herd. This herd utilizes the lands within the Central Yukon planning region, including the Utility Corridor, and is a critical subsistence resource for hundreds of traditional hunters in the Eastern Interior Region. In 1971, the Secretary of the Interior withdrew the 2.1 million acre Utility Corridor under Public Lands Order (PLO 5150). The order excluded the State of Alaska, or any Native Corporation, from selecting lands within the Utility Corridor. In 1980, Congress evaluated Alaska lands for consideration of the ANILCA. Congress decided at that time to disallow the State of Alaska to select all of the lands within the Utility Corridor, except for the provision of community expansion found in the Statehood Act 6(a) and 6(b). ANILCA sec. 906 (e) & (j) (1) are crystal clear regarding Congressional intent referring to the BLM Utility Corridor. Further, PLO 5150 stipulates to "… continue to prohibit selections of certain lands, such lands shall remain unavailable for future State selection except as provided by subsection (e) of this of this Act". ANILCA (j)(1) is clear that the Utility Corridor is to remain as withdrawn lands from State selection. ANILCA 906 sec. (e) is primarily referring to the Alaska Statehood Act Public Law 85-508, sections 6 (a) and (b) The Statehood Act specifically states in sections 6 (a) and (b) for selection of "vacant, un-appropriated and unreserved at the time of their selection". Statehood Act 6 (a) further states, "For the purpose of furthering development of and expansion of communities, the State of Alaska is here by granted and entitled to select, …". The current BLM Resource Management Plan for the Utility Corridor accomplished the wishes of Congress by conveying 7,000 acres around Coldfoot in 1991 for community expansion. There are no other communities in the Utility Corridor other than the private lands in Wiseman. ANILCA 906 sec. is therefore Congress' decision to retain the Utility corridor under Federal ownership.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. ANILCA does not preclude the Secretary of the Interior from revoking PLO 5150 or any PLO. Additionally, while the State was barred from selecting the land within a utility and transportation corridor under section 17(c) of ANCSA, it did not bar the State from filing a top filed selection for if the land ever became available for selection. Pursuant to section 906(e) of ANILCA, the only unavailable lands for which the State was barred from filing top filings were "lands within any conservation system unit or the National Petroleum Reserve Alaska." If PLO 5150 is revoked, the land would become available for State selection as it would no longer be a utility and transportation corridor. **Appendix R** analyzes the effects of the alternatives, including the alternatives about PLO 5150, on subsistence uses.
Kron	Tom	Eastern Interior Alaska Subsistence Regional Advisory Council	None	91	4	PLO 5150	209.0202.00	The BLM preferred Alternative C-2 is recommending that the Secretary of Interior commit a violation of Federal laws by lifting /repealing PLO 5150 to allow state selection of lands within the Utility Corridor. The Council requests that the BLM provide a blend of the current alternatives to exclude any recommendation to the Secretary of Interior to lift any portion of the Utility Corridor PLO 5150 for conveyance of land to the State of Alaska. The preferred Alternative C2 contains a multitude of issues that will have extremely detrimental effects on subsistence and local resources. The Council proposes that an updated plan encompass a blend of Alternative B, with true considerations for fish and wildlife habitat protections found scattered throughout other alternatives. Any preferred alternative must consider prudent multiple use that prioritizes subsistence. This will enable the BLM to move forward with a legal Record of Decision for the Central Yukon Resource Management Plan.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Pelkola	Jenny	Western Interior Alaska Subsistence Regional Advisory Council	None	93	3	PLO 5150	209.0202.00	The Council opposes any BLM Resource Management Plan Alternative that recommends that the Secretary of Interior violate ANILCA statute within the Utility Corridor. ANILCA is clear that the vast majority of the Utility Corridor is to remain under Federal ownership. The Customary and Traditional Federally Qualified subsistence users of the Region would be devastated without the Federal lands within the 2.1 million acre Utility Corridor. The Council believes that the transfer of the Utility Corridor to the State of Alaska is illegal. Such a transfer will result in the outright elimination of critical rural subsistence use in the area. Some communities in and near the Utility Corridor could completely lose all subsistence use of wildlife. The villages who utilize this critical area include Stevens Village, Evansville/Bettles, Allakaket, Alatna, Coldfoot, Wiseman, Anaktuvuk Pass and Nuiqsut. In 1971, the Secretary of the Interior withdrew the 2.1 million acre Utility Corridor under Public Lands Order (PLO 5150). The order excluded the State of Alaska, or any Native Corporation, from selecting lands within the Utility Corridor. In 1980, Congress evaluated Alaska lands for consideration of the ANILCA. Congress decided at that time to disallow the State of Alaska to select all of the lands within the Utility Corridor, except for the provision of community expansion found in the Statehood Act 6(a) and 6(b). ANILCA sec. 906 (e) & (j) (1) are crystal clear regarding Congressional intent referring to the BLM Utility Corridor. Further, PLO 5150 stipulates to "… continue to prohibit selections of certain lands, such lands shall remain unavailable for future State selection except as provided by subsection (e) of this of this Act". ANILCA (j)(1) is clear that the Utility Corridor is to remain as withdrawn lands from State selection. ANILCA 906 sec. (e) is primarily referring to the Alaska Statehood Act Public Law 85-508, sections 6 (a) and (b) The Statehood Act specifically states in sections 6 (a) and (b) for selection of "vacant, un-appropriated and unreserved at the time of their selection". Statehood Act 6 (a) further states, "For the purpose of furthering development of and expansion of communities, the State of Alaska is here by granted and entitled to select, …". The current BLM Resource Management Plan for the Utility Corridor accomplished the wishes of Congress by conveying 7,000 acres around Coldfoot in 1991 for community expansion. There are no other communities in the Utility Corridor other than the private lands in Wiseman. ANILCA 906 sec. is therefore Congress' decision to retain the Utility corridor under Federal ownership.	The Proposed Plan, Alternative E, does not recommend revoking PLO 5150.
Pelkola	Jenny	Western Interior Alaska Subsistence Regional Advisory Council	None	93	4	PLO 5150	209.0202.00	The BLM preferred Alternative C-2 is recommending that the Secretary of Interior commit a violation of Federal laws by lifting /repealing PLO 5150 to allow state selection of lands within the Utility Corridor. The Council requests that the BLM provide a blend of the current alternatives to exclude any recommendation to the Secretary of Interior to lift any portion of the Utility Corridor PLO 5150 for conveyance of land to the State of Alaska. The preferred Alternative C2 contains a multitude of issues that will have extremely detrimental effects on subsistence and local resources. The Council proposes that an updated plan encompass a blend of Alternative B, with true considerations for fish and wildlife habitat protections found scattered throughout other alternatives. Any preferred alternative must consider prudent multiple use that prioritizes subsistence. This will enable the BLM to move forward with a legal Record of Decision for the Central Yukon Resource Management Plan.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Brower	Charlie	North Slope Subsistence Regional Advisory Council	None	99	2	PLO 5150	209.0202.00	North Slope communities have a Customary and Traditional Use Determination on the BLM lands along the Dalton Highway Corridor which provides for a subsistence use priority on these Federal lands. If the BLM gives these lands to the State of Alaska as planned under the preferred BLM Alternative (C2) which grants the State to Top File these lands - this will have a detrimental impact to all rural subsistence users and communities in the region with C&T that currently conduct subsistence activities in this area. Other adjoining Federal lands will also be, impacted by indirectly opening up access further in the interior if these lands along the Dalton Highway Corridor are opened up to State ownership and management. This will also be detrimental to rural subsistence communities that rely on subsistence priority and non-competitive subsistence opportunity to continue their way of life and provide for their families. North Slope communities of Anaktuvuk Pass and Nuiqsut in particular routinely travel to and through these BLM lands and utilize these areas regularly to hunt and gather as do many other North Slope communities that benefit from travel along this corridor for hunting, fishing, and gathering as well as the protections to the caribou and other important subsistence wildlife resources provided by the Federal management along this road corridor. The Council is adamant that the BLM not lift any portion of the Utility Corridor PLO 5051 and not allow any Top Filing of these BLM lands by the State of Alaska - to do so would result in immediate and permanent loss of rural subsistence priority in this area. The Council requests that the BLM provide a blend of the current alternatives to exclude any recommendation to the Secretary of Interior to lift any portion of the Utility Corridor PLO 5150 for conveyance of land to the State of Alaska. The Council recommends a blended Alternative that would not allow any transfer of BLM lands to the State of Alaska but may provide for further environmental protections from any detrimental actions such as: continuing prohibition of gun hunting along the corridor in order to avoid potential for environmental damage from oil spills resulting from bullet puncture to the oil and gas pipeline and prohibitions on resource extraction such as gravel mining which would also have detrimental effects to the environment and critical subsistence resources in this area.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place. **Appendix R** analyzes the effects of the alternatives, including the alternatives about PLO 5150, on subsistence uses. Non-subsistence hunting with firearms within the Dalton Highway Corridor 9 Management Area is prohibited by the ADFG. The Draft RMP/EIS analyzed a range of alternatives for mineral materials (gravel mining).
Brower	Charlie	North Slope Subsistence Regional Advisory Council	None	99	4	PLO 5150	209.0202.00	I need to clarify for the North Slope Council that the Central Yukon RMP includes the Utility Corridor out onto the North Slope. I am attaching the map showing the area the BLM intends to illegally convey to the State of Alaska. I know for a fact that there are people from Nuiqsut that travel the Haul Road and have subsistence opportunities to harvest C&T resources in the Utility Corridor. The Central Yukon Field office has lands in the North Slope Region. My comment is very important to the people of the North Slope who drive the Haul Road from Nuiqsut, Utqiagvik and Anaktuvuk Pass. North Slope subsistence users that are expanding access use with the Community Winter Access Trails (CWAT) systems. The 2.1 million acres of Federal lands of the Utility Corridor will be lost to Federally Qualified Subsistence Users. State lands do not have any subsistence use. The Dalton Highway Corridor Management area is managed only for sport hunting, with Bow and Arrow. 1) I urge the Council to call into question the legality and oppose the process used to inform or public to participate in commenting on the BLM Central Yukon Field office Resource Management Plan Alternatives. 2) I Strongly urge the Council to oppose any BLM Resource Management Plan Alternative that recommends to the Secretary of Interior to violate ANILCA statute within the Utility Corridor. The Public Lands Order (PLO) 5150 must remain in place. ANILCA is clear that the vast majority of the Utility Corridor is to remain in Federal ownership. The Customary and Traditional Federally Qualified subsistence users of the Region would be devastated without the Federal lands within the 2.1 million acre utility corridor. 3) Subsequently, I would recommend that the WIRAC request a blend of alternatives without any recommendation to the Secretary of Interior to lift any portion of the Utility Corridor PLO 5150 for conveyance of land to the State of Alaska. This updated plan; a blend of alternative B with true considerations for fish and wildlife habitat protections found scattered in other Alternatives, that provide provisions for prudent multiple uses; is imperative to attempt to move forward a legal BLM Central Yukon-Resource Management Plan to a final Record Of Decision.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from recommending revocation (in part or full), to no recommendation regarding PLO and ANCSA withdrawals. Analysis of the impacts on subsistence for the communities of Nuiqsut and Anaktuvuk Pass have been incorporated into **Appendix Q** (Subsistence), **Appendix R** (ANILCA 810 Evaluation), and Section 3.5.2 of Chapter 3 (Subsistence). While many communities close to but outside of the Central Yukon planning area were included in the analysis, the community of Utqiagvik was determined to be too far outside of the planning area to be included in the analysis.
Brower	Charlie	North Slope Subsistence Regional Advisory Council	None	99	6	PLO 5150	209.0202.00	Transfer of the Utility Corridor to the State is Illegal The Central Yukon Resource Management Plan's preferred alternative contains many issues that will have extremely detrimental effects on subsistence and resources. Regarding the proposed illegal conveyance of the Utility Corridor to the state, there would be outright elimination of critical Subsistence uses. Some communities in and near the corridor would completely lose all subsistence use of wildlife. The greatest concern contained in the proposed Plan's alternatives is not only to myself as a subsistence user, but also the other people who use the Federal lands known as the 2.1 million acre BLM Utility Corridor, who include Stevens Village, Evansville/Bettles, Allakaket, Alatna, Coldfoot, Wiseman, Anaktuvuk Pass, and Nuiqsut. The Secretary Of Interior in 1971 withdrew the 2.1 million acre Utility Corridor issuing Public Lands Order (PLO 5150). The order excluded the State of Alaska, or Native Corporation to select any lands within the Utility Corridor. In 1980 Congress made the decision, when evaluating Alaska lands, for the Alaska National Interest Lands Conservation Act (ANILCA) to not allow the State of Alaska to select all of the lands of the Utility Corridor, except for community expansion found in the Statehood act 6 (a) and (b). ANILCA sec. 906 (e) & (j) (1) are crystal clear regarding the Congressional intent referring to the BLM Utility Corridor " Public Land Orders 5150, …"continue to prohibit selections of certain lands, such lands shall remain unavailable for future State selection except as provided by subsection (e) of this of this Act". ANILCA (j)(1) is clear the Utility Corridor remain as withdrawn lands from State selection. ANILCA 906 sec. (e) is primarily referring to the Alaska Statehood Act Public Law 85-508, sections 6 (a) and (b) The Statehood Act specifically states in sections 6 (a) and (b) for selection of "vacant, un-appropriated and unreserved at the time of their selection". Statehood Act 6 (a) " For the purpose of furthering development of and expansion of communities, the State of Alaska is here by granted and entitled to select, …" The current BLM Resource Management Plan for the Utility Corridor, after the ANILCA passage, accomplished the wishes of Congress and conveyed 7000 acres around Coldfoot in 1991. There are no other communities in the Utility Corridor other than the private lands in Wiseman. ANILCA 906 is Congress's decision to retain the Utility corridor in Federal ownership. The BLM preferred Alternative C-2 is recommending that the Secretary of Interior commit a violation of Federal laws by lifting /repealing of the PLO 5150 to allow state selection of the utility corridor.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place. ANILCA does not preclude the Secretary of the Interior from revoking PLO 5150 or any PLO. Additionally, while the State was barred from selecting the land within a utility and transportation corridor under section 17(c) of ANCSA, it did not bar the State from filing a top filed selection for if the land ever became available for selection. Pursuant to section 906(e) of ANILCA, the only unavailable lands for which the State was barred from filing top filings were "lands within any conservation system unit or the National Petroleum Reserve Alaska." If PLO 5150 is revoked, the land would become available for State selection as it would no longer be a utility and transportation corridor. **Appendix R** analyzes the effects of the alternatives, including the alternatives about PLO 5150, on subsistence uses. The effect on subsistence was reviewed for all communities within the analysis area.
Williams	Frank	No organization name	None	101	1	PLO 5150	209.0202.00	No PLO 5150 withdrawals should be lifted on any lands adjacent to a conservation unit. These lands belong to the American public and have increased value given the development that occurs (or is anticipated to occur) near TAPS. Of particular importance are the Arctic National Wildlife Refuge, Kanuti National Wildlife Refuge, and Gates of the Arctic National Park and Preserve.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Schauer	John	No organization name	None	105	8	PLO 5150	209.0202.00	No PLO 5150 withdrawals should be lifted on lands adjacent to conservation units. These lands belong to the American public and have increased value if increased development occurs along the pipeline corridor. Lifting these withdrawals will almost certainly result in increased adverse impacts.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Costello	Naomi	Evansville Tribal Council	None	107	11	PLO 5150	209.0202.00	Under all alternatives aside from A (the no-action alternative), the DEIS proposes to revoke or partially revokes the PLO 5150 withdrawals of land around the Dalton Highway set aside in 1971 for a utility and transportation corridor. The DEIS interprets this revocation as allowing the top-filed lands to become valid selections on 738,000 acres to 2.1 million acres.21 Given that ANILCA specifically mentions as PLO 5150 prohibiting State selection in the first place on this land, it is questionable as to whether top-filing on this land was ever permissible. If it was not permissible, then the land would not become a valid selection even if PLO 5150 is revoked and the ANCSA withdrawals are eliminated. 21 DEIS 2-2 to 2-4.	For lands with State of Alaska selections, the conveyance of those lands is a State of Alaska action; it is not an action for this RMP.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Costello	Naomi	Evansville Tribal Council	None	107	12	PLO 5150	209.0202.00	[illegible] history of concerns about federal resource and land planning around the Dalton Highway utility corridor and the impacts on tribal communities in the TCC region. In the 1960s, Alaska Legal Service Corporation represented Allakaket, Alatna, Evansville, Minto, Nenana, Stevens, and Rampart in a lawsuit to stop construction of Trans-Alaska Pipeline System (TAPS). The suit led to an injunction against the corridor under the Indian Reorganization Act on grounds that aboriginal title had not been extinguished and resulted in a settlement where the plaintiffs agreed to withdraw objections to pipeline corridor. This, in turn, contributed to the Alaska Native Settlement Claims Act, which effectively abolished federal recognition of tribal land rights. The same tribes were involved in the right-of-way renewal in the early 2000s, the resource management plan for the Dalton Highway Utility corridor, and in the planning process today. Their grievances regarding TAPS have yet to be fully resolved. We are deeply concerned about that the proposed revocation of PLO 5150 will exacerbate these grievances, particularly as it would change the subsistence regime. The hunting range of many TCC villages extends to the Dalton Highway, and they currently enjoy a rural preference under ANILCA. Some villagers use the Dalton Highway corridor specifically for hunting and associated subsistence activities. A shift in regime to state management would encourage non-local hunters to enter the greater village customary and traditional use areas and accentuate competition for resources, increase user conflicts and contribute the degradation of habitat along the corridor. To offer one example, as the Porcupine Caribou Herd comes westward and closer to Dalton Highway, villages to the west of the highway anticipate that they will increasingly rely on this herd, but an increase in herd presence would also draw non-federally qualified subsistence users. Further, federal law specifically allows hunting with firearms by TCC tribal members in the Dalton Highway corridor, whereas state law does not.22 22 Compare 36 CFR § 242.26 (19)(ii)(C) ("The residents of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, Stevens Village, and residents living within the Corridor may use firearms within the Corridor only for subsistence taking of wildlife") with 5 AAC 92.530 (7) Not only would tribal communities lose the protection of ANILCA in regard to the land near the Dalton Highway, they would lose access to the federal cultural resources processes associated with the National Historic Preservation Act (NHPA) Section 106 and other laws that provide for tribal consultation.23 The State of Alaska does not have a formal relationship with any of the state's 229 federally recognized tribes commensurate with the federal process. There are no equivalent mechanisms for consultation under state law. The Alaska Historic Preservation Act does not provide any formal means for a Tribal government to consult with the state government on the identification and protection of tribal cultural resources. Therefore, transfer of public lands to the state will increase the likelihood of categorical adverse effects to tribal cultural resources within the planning area without recourse. The categorical transfer of land in the corridor would also pose adverse effects to traditional cultural properties in the corridor. 23 DEIS 3-100 acknowledges this but provides no mitigation measures to address this problem. Despite these foreseeable harmful results, the draft plan arbitrarily asserts that "Revocation of PLO 5150 would result in no or minimal impacts on residents of Anaktuvuk Pass, Allakaket, Alatna, Bettles, and Evansville."24 Public and written comments from affected communities and tribal leadership clearly contradict this position. PLO revocation will clearly impact TCC communities by restricting access, opening a larger scale of competition for already known limited resources, and increasing the potential for novel access routes across undeveloped habitat for mineral development that degrade habitat in the corridor. Further, we are particularly concerned about the areas of PLO 5150 that overlap with current ACECs and the removal of both measures could result in egregious trespassing and unauthorized uses. Consequently, not only would the ACEC special considerations be lost over	The Proposed Plan, Alternative E, was developed in consideration of the concerns expressed by the commenter. Alternative E does not recommend revoking PLO 5150. Under Alternative E, protections provided to subsistence and cultural resources by federal administration in the corridor would remain as they are under Alternative A. The lack of a government-to-government consultation mechanism under Alaska state law was incorporated under Section 3.2.9 (Cultural Resources) as an example of impacts due to land transfer out of federal administration causing a loss of existing federal protections.
Costello	Naomi	Evansville Tribal Council	None	107	13	PLO 5150	209.0202.00	For any lands for which PLO 5150 may be revoked, BLM should provide for a substitute withdrawal under FLPMA (43 U.S.C. §?1714) for subsistence purposes,25 or simply designate such lands as closed to alienation or mineral development leasing.26 BLM clearly recognizes the value and legitimacy of FLPMA withdrawals, as demonstrated by the two proposed under C-1 for Dall Sheep and Caribou habitat conservation.27 25 This section of FLPMA allows the Interior Secretary to withdraw less than 5000 acres on its own, and 5000 or more acres for up to 20 years. In the latter case, the Secretary has to notify Congress and give Congress a chance to override the withdrawal. 26 See Bob Marshall v. Hodel, 852 F.2d 1223 (9th Cir. 1988); Joel Aurora, Note - Drill Here Not There: Petroleum Leasing and Conservation in Alaska's National Petroleum Reserve, 65 Hastings L.J. 1165 (2014) https://repository.uchastings.edu/hastings_law_journal/vol65/iss4/6 (distinguishing a Department of Interior decision not to lease from a formal withdrawal). 27 DEIS 2-2. Drawing from a comparative example is the Interior Secretary Salazar's 2012 withdrawal from new uranium mining claims (for up to twenty years) of more than one million acres of land near Grand Canyon National Park. In National Mining Association v. Zinke, 17-1286 (9th Cir. Dec. 12, 2017), the court found that FLPMA and case law did not prevent the Secretary from withdrawing large tracts of land in the interest of preserving cultural and tribal resources. As applied to the PLO 5150, the withdrawal would be attributing a covenant to the corridor for the protection of federal subsistence priority and the conservation of habitat that supports the wild food economies among Alaska Native peoples. While laws governing land management in Alaska differ from those in the Lower 48, we believe that such a withdrawal would not be inconsistent with ANILCA Section 1326(a) (16 U.S.C. § 3213(a)). This section provides for administrative withdrawals up to than 5000 acres in Alaska and requires congressional notification for withdrawals of a greater size. We interpret ANILCA Section 1326 as applying only to "new" withdrawals, not additional withdrawals on land that has already been withdrawn. This interpretation is based on the following: - In Southeast Conference v. Vilsack, 684 F.Supp.2d 135 (D.D.C. 2010) the court found that a Forest Service plan setting aside an old growth reserve did not require Congressional permission under ANILCA. Rather, the land use designations were merely examples of the statutory responsibility to provide for multiple use and sustained yield principles of forest products and services. - In Tulare County v. Bush, 306 F.3d 1138 (D.C. Cir. 2002), petition denied, 317 F.3d 227 (D.C. Cir. 2003), the court found that the Giant Sequoia National Monument did not unlawfully withdraw National Forest land in violation of the National Forest Management Act, because the proclamation specifically stated that it did not revoke any existing withdrawal, reservation, or appropriation. - Cameron v. U.S., 252 U.S. 450 (1920) concerned the Grand Canyon National Monument, which was established in a previously existing forest reserve. The Supreme Court found that the Monument served as the "dominant" reserve, while the forest reserve remained in effect.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150 or any other PLOs and BLM is not considering a substitute withdrawal at this time.
Paragi	Tom	No organization name	None	110	3	PLO 5150	209.0202.00	Regarding the area pertaining to PLO 5150, none of the 4 new alternatives provides the option to relinquish the "inner corridor" to the State of Alaska top-filing while retaining the "outer corridor" in BLM managed lands. If it is legally permissible to split the corridor with a revocation of PLO 5150, it could allow the State to develop critical infrastructure immediately adjacent to the Dalton Highway (pipelines, powerlines, fiber optic lines, etc.) and to grant appropriate access permits for resource development or remote recreational uses on BLM land in the "outer corridor" or on State lands beyond the "outer corridor."	Alternative C2 recommends revoking the inner and outer corridors of PLO 5150.
O'Reilly-Doyle	Kathleen	No organization name	None	112	1	PLO 5150	209.0202.00	The analysis and discussion in this plan does not appear to meet the basic threshold established to consider these transfers. It does appear to lean toward the transfer of lands that may be suitable for developing future access to develop mineral reserves, which is not one of the criteria specified for approved. According to FLPMA (PL 94-579 - October 21 1976, as amended through December 19, 2014) additional wording is included, which has been omitted from the Executive Summary of this plan, which would influence whether lands should be considered as eligible to be transferred out of federal public lands. Some of the omitted sections include: · Sec. 201(a) The Secretary shall prepare and maintain on a continuing basis an inventory of all public lands and their resource and other values (including, but not limited to, outdoor recreation and scenic values), giving priority to areas of critical environmental concern (emphasis added)... · **Sec. 202(c).** Criteria for development and revision. In the development and revision of land use plans, the Secretary shall - 1. use and observe the principles of multiple use and sustained yield set forth in this and other applicable law; 2. use a systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic and other sciences; 3. give priority to the designation and protection of areas of critical environmental concern; 4. rely, to the extent it is available, on the inventory of the public lands, their resources and other values; 5. consider present and potential uses of the public lands; 6. consider the relative scarcity of the values involved and the availability of alternative means (including recycling) and sites for realization of those values; 7. weigh long-term benefits to the public against short-term benefits; 8. provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards or implementation plans	The BLM acknowledges the requirements for consideration of land transfer under FLPMA Sections 203 and 206, and the RMP is in compliance (see Chapter 1.7). The BLM reviewed the requirements under FLPMA for land transfer and considered a range of reasonable alternatives in the Draft RMP/EIS including no disposal or exchange, disposal only, or exchange only.

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O'Reilly-Doyle	Kathleen	No organization name	None	112	10	PLO 5150	209.0202.00	No PLO 5150 withdrawals should be lifted on any lands adjacent to a conservation unit. These lands belong to the American public and have increased value given the development that occurs (or is anticipated to occur) near TAPS. Of particular importance are the Arctic National Wildlife Refuge, Kanuti National Wildlife Refuge, and Gates of the Arctic National Park and Preserve.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Hasselbach	Linda	National Park Service - Alaska Regional Office	None	123	1	PLO 5150	209.0202.00	All four Draft RMP/EIS action alternatives include full or partial revocation of PLO 5150 to allow for State of Alaska (SOA) top-filed lands to become valid selections, thereby conveying ownership from BLM to SOA. The full withdrawal of PLO 5150 considered in the Draft RMP/EIS is 2.1 million acres. The area includes all lands immediately adjacent to the eastern boundary of Gates of the Arctic NPP and fully surrounds the NPS resident zone community of Wiseman. Residents of Wiseman rely on snowmachines almost exclusively for access to Gates of the Arctic NPP for federal subsistence purposes. If selected by SOA, the existing federal subsistence priority allowing Gates of the Arctic NPP resident zone communities to use snowmachines and firearms on former PLO 5150 lands would be automatically terminated. The loss of federal subsistence priority on PLO 5150 lands would be most impactful to the Gates of the Arctic NPP resident zone community of Wiseman, however other Gates of the Arctic NPP resident zone communities including Evansville, Bettles, Allakaket, Alatna, Anaktuvuk Pass, and Nuiqsut also use or have historically used these lands and would be affected. To protect existing access for these resident zone communities, we recommend that the Draft EIS/RMP include a provision such as: 1) retention of all PLO 5150 lands under BLM management, 2) retention of BLM management on the portion of PLO 5150 lands immediately surrounding the community of Wiseman, or 3) creation of strategic easements to achieve access to Gates of the Arctic NPP.	The Proposed Plan, Alternative E, does not recommend revoking PLO 5150.
Canning	Don	No organization name	None	125	1	PLO 5150	209.0202.00	It seems to me that the State of Alaska's top filing of the lands in PLO 5150 at the time of ANILCA has put the residents of Coldfoot and Wiseman in a position of losing their effective waivers with respect to Federal hunting/subsistence (by the way of prohibitions on OHV and firearms use for which those residents currently enjoy exemptions). This appears to me to be an unintended consequence of the McDowell decision which few in the state, who would have supported (or did support) that decision would have wanted. Obviously, the fish and Game management scenario created by the McDowell decision falls outside of the BLM's jurisdiction - sort of. Except that ANILCA - An act of Congress that we are all still bound by - requires the Federal Gov't to guarantee subsistence access priority to rural residents on Federal lands and this legal framework has governed fish and game harvesting in Coldfoot and Wiseman for 40 years. So, if PLO 5150 is revoked and the land conveyed to the state, residents of Coldfoot and Wiseman will, perversely, find themselves more restricted w/ respect to fish and game harvesting than many urban residents even though they (the villagers) are, on the whole, more dependent on those resources. For this reason and, considering how legally complex this situation is I think the best thing the BLM can do is give this more time - at a minimum to extend the comment period. And, since the state does not appear to have any plans to create a two-tiered game management system (with a state-recognized rural subsistence priority), I recommend Alternative A: that PLO 5150 not be revoked.	The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The BLM provided opportunities for the public to participate both in a live virtual public meeting, as well as through a self-paced virtual open house, accessible on the project website.
Rohrer	Trenton	No organization name	None	132	3	PLO 5150	209.0202.00	Maintain PLO 5150 in the entirety as proposed in Alternative A (2,138,000 acres). All new alternatives proposed by the BLM recommend a partial or full revocation of lands under PLO 5150. The Preferred Alternative C2 recommends a full revocation of lands under PLO 5150. This is a massive deviation from the current management strategy and has great potential to adversely affect the interests of sportsmen and women if lands are conveyed to the state and become open for development.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Berendzen	Steve	U.S. Fish and Wildlife Service	None	134	1	PLO 5150	209.0202.00	PLO 5150 Utility Corridor: Arctic National Wildlife Refuge has strong concerns about the unknown and unpredictable impacts that revoking PLO 5150 may present for BLM managed lands adjacent the Refuge. Regardless of the Action Alternative (all represent some level of PLO removal) there will be some level of unknown impact to Refuge lands. Revoking PLO 5150 has the potential to negate or absolve any management decisions and resource protections that are proposed in some of the Alternatives, particularly Alternatives B and Cl. The resource protections that the Refuge would be supportive of include ACEC designations, Land with Wilderness Characteristic (LWC) designations, and Wild and Scenic River proposals. Arctic Refuge's position is that the PLO 5150 should be retained and the Utility Corridor continue to be managed by BLM. The inner corridor still functions as a utility corridor, the purpose for which PLO 5150 was enacted. Beyond the purposes of a utility corridor, PLO 5150 (and BLM continued management) also provides additional public benefits. Arctic NWR supports BLM retention and management in cooperation with other Federal partners for the benefit and support of public outreach facilities such as the Arctic Interagency Visitor Center and public campgrounds, a connectivity nexus with other federal lands/partners for public use and access and the continuation of Federal subsistence access protections.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150.
Berendzen	Steve	U.S. Fish and Wildlife Service	None	134	2	PLO 5150	209.0202.00	According to Dr. Peter Fix, visitor use, particularly by Interior Alaskan residents seeking consumptive and non-consumptive recreational uses, has continued to increase along the Dalton Highway (personal communication). This trend is also apparent on lands adjacent to the Utility Corridor managed by Arctic Refuge. Reductions along the Utility Corridor in the availability of access to unimproved hiking and camping areas, large mammals and fish, and traditional activities such as berry picking, reduced recreational user opportunities and/or a reduction in overall recreational experience quality is likely to result from Revoking PLO 5150. This action would also likely create secondary effects of displacing these public recreational activities onto adjacent public lands, thereby resulting in lesser quality experiences beyond the Utility Corridor. If the Secretary of the Interior were to revoke ANCSA 17(d)(1) withdrawals and PLO 5150 with the final decision for this plan, the Arctic NWR recommends modifying the withdrawals, where appropriate, for carrying out protective measures and management decisions under Alternatives B and C 1 . These new or modified FLPMA withdrawals would be consistent with the future management needs that are outlined in this plan including such land protections afforded under Alternatives B and C1 for LWCs, BCAs, Wild and Scenic Rivers and ACECs. (Table 2-19, Chapter 2, Page 50).	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150 and BLM is not considering a substitute withdrawal at this time.
Whitehill	Barry	No organization name	None	137	1	PLO 5150	209.0202.00	Public Land Withdrawals (ANCSA 17 d-1 and PLO 5150) Full Revocations of ANCSA 17(d)(1) lands and PLO 5150 as proposed in Preferred Alternative C2 could negatively affect hunting, fishing and other recreational uses, particularly within PLO 5150. I would oppose the full revocations of ANCSA 17 (d)(1) lands and PLO 5150. A big issue for me is the protection that currently is in place from motorized vehicle access off the Dalton Highway. Frankly, I can still afford the sweat to get across the five-mile restricted area. If this restriction is lifted the whole landscape, including the adjacent conservation units managed by National Park Service and U.S. Fish and Wildlife Service will be threatened by motorized vehicle impacts like what the Bureau of Land Management has recently experienced off the Steese Highway during caribou hunting season. Only Alternative A (the no action plan) maintains both ANCSA d-1 withdrawals and PLO 5150, so I would wholeheartedly support the inclusion of these aspects into Alternative B.	The Proposed RMP/Final EIS has been updated to more fully address the impacts to travel across the lands that could be conveyed to the State of Alaska within the 5150 corridor due to Alaska Statute 19.40.210.

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Whitehill	Barry	No organization name	None	137	2	PLO 5150	209.0202.00	I would support the adoption of the Dalton Corridor Backcountry Conservation Area (BCA) as identified in Alternative B. The flexibility of BCA's as a management tool provide room for necessary multiple-use management while supporting the conservation of valuable habitat areas for fish and wildlife. The adoption of the Dalton Corridor BCA would help the Central Yukon Field Office meet fish, wildlife and recreation objectives and achieve the agency's multiple use and sustained yield mandate. Furthermore, it is important to note that if the outer Dalton Corridor land withdrawal (PLO 5150) is revoked, as proposed in Alternative B, that the BCA, also proposed in Alternative B, would be nullified. I recommend that this conflict within Alternative B be remedied by maintaining PLO 5150 as proposed in Alternative A, and thus allowing the adoption of the BCA.	The analysis has been revised to clarify the potential impacts associated with the revocation of PLO 5150, specifically the implications on recreation opportunities in the BCA and SRMA.
Richards	Frank	Alaska Gasline Development Corporation	None	138	7	PLO 5150	209.0202.00	Public Land Order 5150 - PLO 5150 should be rescinded in its entirety so that the lands subject to PLO 5150 can be conveyed to the State of Alaska. These lands are arguably the most important acreage available to fulfill the State's remaining Statehood entitlement. Issue: a. The State of Alaska has an overarching interest in the revocation of PLO 5150. As sponsor of the Alaska LNG project, AGDC also supports revocation of PLO 5150. b. The State of Alaska has top-filed for future State selection a large portion of the lands in the transportation and utility corridor that were reserved by PLO 5150. If PLO 5150 is rescinded, the top-filed lands would become valid State selections, and eventually become State-owned lands. c. The PLO 5150 transportation and utility corridor is Alaska's lifeline. The corridor is the only viable transportation route through the Brooks Range to Alaska's North Slope. Federal Conservation System Units (CSUs) have created a constriction point between the Arctic Coastal Plain and Interior Alaska. The Arctic National Wildlife Refuge (ANWR) and Yukon Flats Wildlife Refuge border the corridor to the east and the Gates of the Arctic National Park and Preserve and the Kanuti National Wildlife Refuge border the corridor to the west. The only economically feasible way to move North Slope oil and gas resources without encroaching on a federal CSU is through Atigun Pass. d. In addition to the proposed Alaska LNG project pipeline right-of-ways, TAPS and the Dalton Highway and are within the PLO 5150 corridor. Resolution: AGDC supports a recommendation in the final CYRMP to the Secretary of the Interior revoke PLO 5150 in its entirety.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150.
Cole	Jeanie	Alaskans for Wildlife	None	142	2	PLO 5150	209.0202.00	Public Land Order (PLO 5150) withdraws lands in the Dalton Utility Corridor from selection by the State of Alaska under the Statehood Act. All action alternatives propose revocation of all PLO 5150 lands in the outer corridor allowing State of Alaska selections to attach. These lands are more intact, and less subject to disturbance and human activity compared to the inner corridor and are valuable for wildlife habitat and connectivity. Alternatives C2 and D recommend revocation of all PLO 5150 lands, in both the inner and outer corridor. There is no alternative revoking PLO 5150 only in the inner corridor which would seem to be the area of most interest to the State of Alaska and the area that would support its goal of a natural gas pipeline, as well as being home to the Dalton Highway, TAPs, and numerous gravel pits. We recommend that the BLM consider a more nuanced preferred alternative that would maintain PLO 5150 in the outer corridor and selected areas within the inner corridor, especially within proposed Areas of Critical Environmental Concern (ACECs), identified Dall sheep and caribou habitat areas, high value recreation areas, and connectivity corridors. Such an alternative would also maintain access for federal subsistence hunting opportunity for the communities of Bettles and Wiseman. If the proposed RMP/Final EIS does not consider maintaining PLO 5150 in the outer corridor, the BLM should provide rationale of why retention in the outer corridor was not analyzed in any of the action alternatives.	Alternative B and C1 recommend revoking the outer corridor. Alternative C2 recommends revoking the inner and outer corridor of PLO 5150. This is a reasonable range of alternatives and an alternative that only recommends revoking the inner is not needed in order for the BLM decision-maker to make an informed decision.
Okada	Marcy	Gates of the Arctic National Park Subsistence Resource Commission	None	143	2	PLO 5150	209.0202.00	Regarding the proposed illegal conveyance of the Utility Corridor to the State of Alaska, there would be outright elimination of critical subsistence uses. Some communities in and near the corridor would completely lose all subsistence use of wildlife. The greatest concern contained in the proposed Plan alternatives is to the communities who use the Federal lands known as the BLM Utility Corridor and includes Stevens Village, Evansville/Bettles, Allakaket, Alatna, Coldfoot, Wiseman, Anaktuvuk Pass, and Nuiqsut. The Secretary of Interior in 1971 withdrew the 2.1 million acre Utility Corridor issuing Public Lands Order 5150. The order excluded the State of Alaska or Native Corporation to select any lands within the Utility Corridor. In 1980 Congress made the decision, when evaluating Alaska lands for the Alaska National Interest Lands Conservation Act (ANILCA) to not allow the State of Alaska to select all of the lands of the Utility Corridor, except for community expansion found in the Statehood Act 6 (a) and (b). ANILCA sec. 906 (e) & (j) (1) are crystal clear regarding the Congressional intent referring to the BLM Utility Corridor " Public Land Order 5150, …continue to prohibit selections of certain lands, such lands shall remain unavailable for future State selection except as provided by subsection (e) of this Act". ANILCA (j)(1) is clear the Utility Corridor remain as withdrawn lands from State selection. ANILCA 906 sec. (e) is primarily referring to the Alaska Statehood Act Public Law 85-508, sections 6 (a) and (b) The Statehood Act specifically states in sections 6 (a) and (b) for selection of "vacant, un-appropriated and unreserved at the time of their selection". Statehood Act 6 (a) " For the purpose of furthering development of and expansion of communities, the State of Alaska is here by granted and entitled to select, …". The current BLM Resource Management Plan for the Utility Corridor, after the ANILCA passage, accomplished the wishes of Congress and conveyed 7000 acres around Coldfoot in 1991. There are no other communities in the Utility Corridor other than the private lands in Wiseman. ANILCA 906 is Congress's decision to retain the Utility corridor in Federal ownership. The BLM preferred Alternative C-2 is recommending that the Secretary of Interior commit a violation of Federal laws by lifting /repealing of the Public Land Order 5150 to allow state selection of the BLM Utility Corridor.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The Proposed RMP/Final EIS only proposes revocation of effective selections.
Gestring	Bonnie	Earthworks	None	146	8	PLO 5150	209.0202.00	According to the DEIS, the State of Alaska has top-filed 2,066,000 acres of withdrawn BLM- managed lands in PLO 5150. If the PLOs that withdrew these lands are revoked, the State's top-filings become valid selections under the Alaska Statehood Act and any Priority 1 top-filings would become Priority 1 selections. Once these lands become selected, they would no longer be available for federal priority subsistence (ANILCA 102.3; ANILCA Section 804. (DEIS, p. 3-2) In the Federal Land Policy and Management Act (FLPMA), Sec. 102 (a)(1), Congress makes it clear "…that it is the policy of the United States that the public lands be retained in Federal ownership, unless as a result of the land use planning procedure provided for in this Act, it is determined that disposal of a particular parcel will serve the national interest." The draft Plan does not explain how transferring federal public lands within the Dalton Highway Corridor (corridor) would serve the national interest in a manner that surpasses that of current BLM management. We urge the BLM to retain PLO 5150 to maintain the federally protected subsistence hunting rights along the corridor. We point to the recent vote by the Eastern Interior Alaska RAC, which voted unanimously to oppose the lifting of the PLO 5150 in its March 4, 2021 meeting. In addition to subsistence priority for local communities, this corridor, under its current management, provides the public with countless services including internationally recognized recreation and visitation opportunities including scenic value and backcountry access on LWC, protected vital natural resources such as fish and wildlife habitat and clean water within 12 ACECs (54% of the corridor), and management of vital habitat connectivity corridors among four Federal Conservation System Units allowing wildlife to move, migrate, and, therefore, survive. The retention of these lands under federal management prevents unnecessary or undue resource and service degradation and ensures the use and enjoyment of this irreplaceable area for future generations. State management of other highway corridors in the interior such as the Steese Highway has been hugely destructive to the landscape as was clear by the 40-mile caribou herd hunt that took place in the fall of 2020 which resulted in massive habitat destruction and wildlife harassment among other damaging effects. Transferring corridor management to the state would not outweigh other public benefits and values.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The Proposed RMP/Final EIS only proposes revocation of effective selections.

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Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	11	PLO 5150	209.0202.00	RECOMMENDED CHANGES TO ALTERNATIVE B * We strongly recommend amending Alternative B (or any alternative which is selected as preferred) to prevent full revocation of PLOs 5173, 5179, 5180, 5184, and 5186 which would otherwise put Refuge resources at risk through potential impacts to water quality, fisheries, and wildlife populations (including caribou). Portions of high-value watersheds adjacent to Koyukuk, Nowitna, and Innoko NWRs, (including areas identified as ACECs in this plan), and areas within the Galena Mountain Caribou Herd core calving grounds would be made available for conveyance to the State. More than 95% of the BLM lands adjacent to the Koyukuk Nowitna and Innoko Refuges lands are identified as State of Alaska or ANCSA 17(d)(1) selected lands. Once a Record of Decision is made for this Central Yukon RMP, all of those lands could be conveyed within 10 years to the State of Alaska or the Native Tribes. If that occurs there will be no protections for any affected ACECs, wilderness priority, or WSR lands that are currently identified in Alternative B, our preferred alternative.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full), to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Magee	Susan	State Of Alaska	None	165	3	PLO 5150	209.0202.00	The State has therefore not limited its review to the preferred alternative and has instead commented on various decisions proposed across all alternatives. As a result, it may appear that the State's support for some proposed decisions, e.g., the proposal to lift Public Land Order (PLO) 5150,2 which would allow for the State to receive title to its priority top-filed selections, may appear inconsistent with support for other decisions that would apply only as long as BLM continues to be the land manager. That is not the case and should not be interpreted as such by BLM. The concepts supported by the State, e.g., protections for Dall sheep habitat located on lands within the Utility Corridor, would apply regardless of federal or State management. To clarify, the State supports protections that could be provided by BLM or that would shift to the State when PLO 5150 is lifted. If it is deemed necessary, the State will initiate appropriate land use planning (including amending existing area plans) to address management of the newly acquired lands should PLO 5150 be revoked. It is not appropriate, however, for proposed management decisions in the CYRMP to preempt or frustrate furthering the State's land entitlement granted under the Alaska Statehood Act. 2 This plan was initiated following completion of the East Alaska RMP and a commitment from then Secretary of Interior, Ken Salazar, to continue working cooperatively with the State of Alaska to consider further modifications to Public Land Order 5150, which overlays lands within the Utility Corridor north of the Yukon River. He further declared that the fulfillment of the State's land entitlement to be a top priority and urged the State to fully engage in the CYRMP planning process to assist BLM with that evaluation process. See enclosed June 27, 2012 letter from Secretary Ken Salazar to Governor Sean Parnell.	The Proposed RMP/Final EIS makes no recommendation on PLO 5150.
Magee	Susan	State Of Alaska	None	165	4	PLO 5150	209.0202.00	1. Lifting Public Land Order (PLO) 5150 – Issue: The State supports the plan's recommendation to fully lift PLO 5150 under Alternatives C-2 and D; however, the plan fails to frame lifting the PLO as a land entitlement issue subject to ANILCA Section 810(c) or provide critical context that supports lifting the PLO. * Resolution: Plan needs to: 1) recognize that ANILCA Section 810(c) explicitly states that the 810 analysis is not to be construed to prohibit or impair the ability of the State to make land selections and receive land conveyances pursuant to the Alaska Statehood Act; 2) provide appropriate context for the lifting of PLO 5150 and advancing completion of Alaska's remaining statehood land entitlement; and 3) provide correct subsistence information and context. * Discussion: More than 60 years following statehood, Alaska has yet to receive its full land entitlement granted under the 1958 Alaska Statehood Act to provide for resource development and allow for a self-sufficient resource and economic base. Key to the State's ability to finalize its land selections is the lifting of PLO 5150, over which the State's highest priority selections are top-filed pursuant to ANILCA Section 906(e). We support the lifting of PLO 5150 in its entirety as depicted in the preferred alternative (C2), which will allow the State to satisfy a large portion of its outstanding statehood land entitlement. In June 2006, BLM recommended a partial revocation of PLO 5150 in the East Alaska RMP Record of Decision. In 2008, the Department of Interior (DOI) filed PLO 7692, revoking PLO 5150 on 82,000 acres in the utility corridor, allowing for some the State's top-filings within the East Alaska planning area to become valid selections. In a June 27, 2012 letter to Governor Sean Parnell, Secretary of Interior, Ken Salazar, stated "BLM is committed to working with the State to consider further modifications of PLO 5150" and further indicated BLM's Alaska State Office would initiate the CYRMP planning process to evaluate the public lands within the utility corridor located north of the Yukon River. He also stated, "I consider fulfillment of the State of Alaska's land entitlement a top priority." However, despite this strong commitment from the Secretary and the State's good faith participation in the planning process, we are concerned that the draft RMP/EIS lacks critical context for lifting PLO 5150 and an accurate, objective, analysis of subsistence issues, without which the plan inappropriately impairs the State's ability to receive its highest priority land selections. To properly frame lifting PLO 5150 as a land entitlement issue, the CYRMP needs to recognize the following important context: * Lands within this corridor are strategically and economically essential to the State for current and future transportation and utility projects. * The utility corridor links remote and isolated communities and connects the North Slope to people, goods, services, and resources along the roaded and rail-belt areas. * As a result of these lands being held in top-filed status for decades, a significant portion of the Trans-Alaska Pipeline System (TAPS) right-of-way (ROW) now consists of a patchwork of State and federal lands. * The current dual management scheme is cumbersome, hinders economic development, and is both economically and logistically inefficient. * Existing critical state infrastructure already within the lands encompassed by PLO 5150 include the TAPS and the Dalton Highway (managed by the Alaska Department of Transportation and Public Facilities (ADOT&PF)). * The primary purpose of the inner Utility Corridor is energy transportation (BLM 1991 Utility Corridor RMP). * The State has a vested interest and an existing institutional and regulatory framework to ensure the inner corridor will continue to be managed for that primary purpose. * The State already manages a large portfolio of pipelines located on state land, including a significant portion of TAPS. * Potential future projects that are all or partially located in the corridor include the Alaska Stand Alone Pipeline Project (ASAP), Alaska LNG, Ambler Road Corridor, and the Ray Mountains mineralized area access road. * Conveyance to the State will allow thoughtfully managed access points to be constructed consistent with ADOT&PF's mission and key objective "to Keep Alaska Moving	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Schutt	Aaron	Doyon Limited	None	173	44	PLO 5150	209.0202.00	For instance, access must be preserved and provided to Doyon lands in the vicinity of Sithylemenkat Lake, Stevens Village, Rampart, and other lands, for natural resource development and other purposes, including overland village access. There are significant mineral and oil and gas prospects within 20 to 40 miles of the Utility Corridor that will require access to and from the Corridor. Access is necessary to retain economic opportunities for Doyon and its shareholders, as well as previously expressed local resident goals for a road connection between Stevens Village and the Utility Corridor. Doyon also operates businesses that are dependent upon a safe, efficient transportation system in the corridor. We understand that the current landownership and management of the corridor continues to present significant challenges for the Alaska Department of Transportation and Public Facilities' ability to maintain the Highway. This includes securing reasonable access to local sources of gravel, as well as the need for flexibility to move certain segments of the Highway to address long-term maintenance and safety issues. The latter is particularly important given climate change trends and thawing permafrost, demonstrating the need for a safer, more resilient transportation system. The Draft RMP spends very little time describing the implications of its ultimate recommendation regarding the PLO 5150 withdrawal on these issues of access to and from the Dalton Highway or the ability of the State of Alaska to efficiently maintain the Dalton Highway as a safe and efficient transportation corridor that is critical to the Alaska economy. Both, however, are reasons to support the full revocation of the PLO 5150 withdrawal. These benefits would not be fully realized by a partial revocation of the withdrawal, and Doyon favors recommending full revocation over only a partial revocation.	The suggested analysis for effects of under the full revocation of PLO 5150 was incorporated into the travel management section of Chapter 3 (Section 3.3.5). The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from recommending revocation (in part or full), to making no recommendation regarding PLO and ANCSA withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Borell	Steven	Borell Consulting Services LLC	None	176	1	PLO 5150	209.0202.00	It is essential that Public Land Order 5150 be revoked entirely. This PLO was issued in preparation for the Trans Alaska Pipeline corridor and that need was satisfied more than 40 years ago. The State of Alaska has land entitlement selections covering most of the area and once PLO 5150 is removed, the State selections will fall in place. Obtaining these lands has been a priority of the State for many decades.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150.
Johnson	Ashley	No organization name	None	179	1	PLO 5150	209.0202.00	Another concern of ours is the fact that the Dalton Highway is already poorly maintained with the current traffic/weather conditions it faces. Lifting the PLO 5150 would therefore cause significant conflicts with road safety due to increased traffic.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. Analysis on the likely increase of traffic due to revocation of PLO 5150 has been added to in the travel management section of Chapter 3 (Section 3.3.5). The Proposed Plan, Alternative E, does not recommend revoking PLO 5150 .

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Mannix	Jacob	Backcountry Hunters & Anglers	None	185	12	PLO 5150	209.0202.00	The Federal Land Policy and Management Act, Section 102, states that "public lands be retained in Federal ownership, unless as a result of the land use planning procedure provided for in this Act, it is determined that disposal of a particular parcel will serve the national interest". It is unclear how the conveyance of PLO 5150 to the state of Alaska will serve the national interest as the Dalton Highway Corridor is already managed as a critical component of the domestic oil and gas transportation system.	The Proposed Plan, Alternative E, does not recommend revoking PLO 5150.
Mannix	Jacob	Backcountry Hunters & Anglers	None	185	15	PLO 5150	209.0202.00	Adoption of the Dalton Corridor BCA is also a measure to assist the BLM in implementing Department of the Interior Secretarial Orders 3347 and 3356 which support Executive Order 13443, Facilitation of Hunting Heritage and Wildlife Conservation. * S.O. 3347: Expanding Recreational, Hunting and Wildlife Conservation Opportunities o enhance conservation stewardship, increase outdoor recreation and improve the management of habitat, including for game species. * S.O. 3356: Hunting, Fishing, Recreation Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories o Builds upon S.O. 3347 and seeks to expand opportunities for big game hunting for all Americans by coordinating efforts with various management agencies to improve quality big game habitat.	Thank you for your comment. The BLM considered applicable Secretarial and Executive Orders in review of the effects of the analysis, including S.O 3347, S.O. 3356, and E.O.13443. Alternative E, the Proposed Plan, was developed from the range of alternatives identified in the Draft RMP/EIS, which included designating the Dalton Corridor BCA or not. Under Alternative E, the Dalton Corridor BCA would be designated.
Brower	Harry	North Slope Borough	None	190	1	PLO 5150	209.0202.00	The four Action Alternatives presented in the Draft each recommend either a partial or full revocation of Public Land Order 5150, allowing State of Alaska top-filed lands to become valid selections on between 738,000 and 2.1 million acres within the Dalton Highway Corridor. It seems that it remains an open question whether partial or full revocation is legally required where a conclusion is ultimately reached at the end of this process that lands have not been, and likely will not be, used for the transportation purposes for which they were withdrawn. What does not seem an open question is that the rural subsistence users of the region would lose their federal subsistence priority along the corridor if the land is transferred to the State. The Borough believes that if the conclusion is reached that the withdrawal of some or all of the PLO 5150 lands must be revoked, BLM can certainly identify other essential purposes for much of those lands which would justify retaining them under federal management. BLM has clearly acknowledged its obligations under ANCSA and Titles XIII and XI of ANILCA to ensure that subsistence uses and access to subsistence resources are protected. Retaining these Corridor lands under federal management is essential to meeting those obligations.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The Proposed RMP/Final EIS only proposes revocation of effective selections.
Lavin	Pat	Defenders Of Wildlife	None	193	7	PLO 5150	209.0202.00	There is no indication that the PLO would or should be revoked at any future date. It was neither temporary in nature nor intended to expire after utilities were constructed or other activities completed within the corridor. There is no basis to contend that the withdrawal has served its purpose and thus should be revoked or modified, and certainly no grounds to treat such revocation or modification as a given. As with the D1 withdrawals, BLM fails to consider a range of land management options regarding acreage withdrawn by PLO 5150. Other than fully revoking this withdrawal, BLM considered only the option of retaining the inner corridor. This limited range of options failed to consider the impact and value of retaining other areas within the 2.138 million acres in withdrawn status to protect resource values.10 Revoking PLO 5150 is among the most impactful actions that BLM is proposing and this action deserves a rigorous impacts assessment and impact sensitivity analysis for partial withdrawals. 10 Substantial resource values in the corridor include high-value watersheds, high-value wildlife habitat, and numerous existing and proposed ACECs to protect these and other values.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The Proposed RMP/Final EIS only proposes revocation of effective selections."
Lavin	Pat	Defenders Of Wildlife	None	193	8	PLO 5150	209.0202.00	In short, BLM's rationale for failing to consider retaining any or all D1 withdrawals in the planning area is arbitrary and capricious, as is its presumption that all or most of PLO 5150 must necessarily be revoked. The reasons for the D1 withdrawals varied by Public Land Order and none are obsolete or expired, or have otherwise rendered retention irrational or impossible. PLO 5150 continues to protect numerous high-quality resource values and can similarly be retained in whole or in substantial part. Retention of some or all of these PLOs could be the environmentally preferable alternative, could be entirely consistent with achieving BLM's other management goals for the planning area as a whole, and therefore should be analyzed as a reasonable option in the NEPA process	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place. Under Alternative A, the ANCSA 17(d)1 withdrawals would remain in place.
West	Jeri	Alyeska Pipeline Service Company	None	196	39	PLO 5150	209.0202.00	The concept as written raises concerns about the impact on access to public lands and resources. For example, although the discussion in Rationale (G.1.1) makes positive statements in the interest of multiple use, the sentence in Objectives (G.1.2) reading "Most BLM planning must be a reactive approach to maintaining or restoring ecological integrity and connectivity corridors" is unclear. The overall impression, especially when combined with a reading of the SOP's for Benchmarks, is that including benchmarks and corridors as "Resources" is a tool to restrict land use more than a tool for inventorying resource values per FLPMA. At a minimum, we request that the areas described in Alternative C1 based on maximizing CSU area (map G-2) be redrawn to exclude lands withdrawn under PLO 5150 for utility purposes. We repeat this request to redraw map G-3 to exclude PLO 5150 lands. These comments are consistent with Alyeska's comments filed during the Scoping phase.	The alternative C1 Benchmark map does go into PLO 5150. Benchmarks are based on science and not public land orders or BLM management. Therefore having a Benchmark within PLO 5150 would not restrict activities in PLO 5150 and the map was not edited.
Shon Jodwalis	Lisa	No organization name	None	197	4	PLO 5150	209.0202.00	The legality of including "full revocation of PLO 5150" in a Resource Management Plan is questionable. This is not a management proposal but a complete change in land ownership from federal to state which is, in effect, a massive land disposal of over two million acres. This action is so enormous in its implications for the management of public lands and resources that it requires an EIS of its own. It would affect every aspect of life, human and non-human, in the Utility Corridor. An EIS is mandated by the National Environmental Policy Act of 1969 (NEPA), to assess the potential impact of actions "significantly affecting the quality of the human environment." This requirement under NEPA does not prohibit harm to the environment, but rather requires advanced identification and disclosure of harm (https://www.americanbar.org/groups/public_education/publications/teaching-legal-docs/teaching-legal-docs--what-is-an-environmental-impact-statement-/). Should the BLM's ROD approve the preferred alternative, there would be no further incentive to protect the renewable resources of the Central Yukon management area in accordance with FLPMA policies or to heed the needs and desires of local residents, subsistence users, or the American public, as the State of Alaska would likely move to extract non-renewable resources and lift environmental safeguards at a much greater rate.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The Proposed RMP/Final EIS only proposes to revoke the ANCSA 17(d)(1) withdrawals outside of the PLO 5150 corridor to allow for the selection of Native allotments pursuant to the Dingell Act.
Brown	Loretta	SalmonState	None	198	5	PLO 5150	209.0202.00	The proposal to revoke ANCSA Section 17(d)(1) withdrawals in the Central Yukon planning area under Alternative C2 is flawed in a number of respects; SalmonState does not believe there is adequate rationale for the BLM to fully revoke public land withdrawals on the 7.4 million acres of BLM lands within the planning area. Such a proposal of wide-sweeping revocation does not adequately consider impacts of foreseeable mining development after such revocation on subsistence hunting, fishing, and gathering resources, climate change impacts, and impacts to fish and wildlife habitat. The act of revoking the withdrawals would impose a drastic change in management and have profound impacts on subsistence users, sport hunters and anglers, and community residents that reside in the planning area. Additionally, the alternative to retain those withdrawals was wholly and recklessly dismissed. One specific area of concern is the PLO 5150; we are concerned with the loss of subsistence hunting opportunities for federally-qualified subsistence users that would occur with the revocation of the PLO 5150. All existing ANCSA Section 17(d)(1) withdrawals should be retained, specifically those that overlap with ACEC and RNA nominations, previous designations and habitat corridors (see appendix G), and we request that BLM identify a preferred alternative that reflects a more balanced approach to future land management.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Crockett	Deantha	Alaska Miners Association	None	199	5	PLO 5150	209.0202.00	Revoke the entire remainder of Public Land Order (PLO) 5150 (Pipeline Utility Corridor) to enable the State of Alaska to own this transportation corridor that provides critical access to State lands on the North Slope. Absent a complete lifting PLO 5150, AMA specifically requests that a portion of the lands currently withdrawn by PLO 5150 that have significant REE potential be made available for conveyance to the State. These specific lands and the rationale for this request are described in the discussion of item #1 below. To not remove this PLO would be in direct conflict with the Biden Administration goal to develop domestic sources of REEs and critical and strategic minerals.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150 or any other PLOs and BLM is not considering a substitute withdrawal at this time. Rare Earth Elements and other critical minerals are considered locatable minerals, the proposed Alternatives make a number of areas available for locatable mineral entry. BLM reviewed the potential for Rare Earth Element development across the planning area, as part of the assessment of locatable mineral potential done in coordination with USGS and AKDGGS.
Crockett	Deantha	Alaska Miners Association	None	199	21	PLO 5150	209.0202.00	Revoke Entire Public Land Order 5150, Pipeline Utility Corridor (2.1 million acres). PLO 5150 withdrew Federal lands to allow for the construction of the Trans Alaska Pipeline System (TAPS). The pipeline was completed more than 40 years ago. The withdrawal has long since served its intended purpose and is no longer necessary. This will allow the State's land selection Topfilings to finally become valid State selections. The State already owns much of the land that was once withdrawn by PLO 5150, which demonstrates that the corridor no longer needs to be retained in Federal ownership. In fact, more than half of the former PLO 5150 lands are now State owned, including areas near Valdez, through much of the Copper and Tanana basins, and north of Atigan Pass. In addition, the corridor provides critical access to State land on the North Slope of Alaska. Absent a complete lifting PLO 5150, AMA specifically requests that a portion of the lands currently withdrawn by PLO 5150 that have significant Rare Earth Element potential be made available for conveyance to the State. These land areas fall within the townships identified below: All Fairbanks Meridian, Alaska T. 12 N., Rs. 10 and 11 W. T. 13 N., Rs. 10, 11, and 12 W. T. 14 N., Rs. 12 and 13 W. T. 15 N., Rs. 12 and 13 W. T. 16 N., Rs. 12 and 13 W. T. 17 N., Rs. 13 and 14 W. T. 18 N., Rs. 13 and 14 W. T. 19 N., Rs. 14 and 15 W.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	14	PLO 5150	209.0202.00	Under all alternatives aside from A (the no-action alternative), the DEIS proposes to revoke or partially revokes the PLO 5150 withdrawals of land around the Dalton Highway set aside in 1971 for a utility and transportation corridor. The DEIS interprets this revocation as allowing the top-filed lands to become valid selections on 738,000 acres to 2.1 million acres.21 21 DEIS 2-2 to 2-4. Given that ANILCA specifically mentions as PLO 5150 prohibiting State selection in the first place on this land, it is questionable as to whether top-filing on this land was ever permissible. If it was not permissible, then the land would not become a valid selection even if PLO 5150 is revoked and the ANCSA withdrawals are eliminated.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	16	PLO 5150	209.0202.00	The same tribes were involved in the right-of-way renewal in the early 2000s, the resource management plan for the Dalton Highway Utility corridor, and in the planning process today. Their grievances regarding TAPS have yet to be fully resolved. We are deeply concerned about that the proposed revocation of PLO 5150 will exacerbate these grievances, particularly as it would change the subsistence regime. The hunting range of many TCC villages extends to the Dalton Highway, and they currently enjoy a rural preference under ANILCA. Some villagers use the Dalton Highway corridor specifically for hunting and associated subsistence activities. A shift in regime to state management would encourage non-local hunters to enter the greater village customary and traditional use areas and accentuate competition for resources, increase user conflicts and contribute the degradation of habitat along the corridor. To offer one example, as the Porcupine Caribou Herd comes westward and closer to Dalton Highway, villages to the west of the highway anticipate that they will increasingly rely on this herd, but an increase in herd presence would also draw non-federally qualified subsistence users. Further, federal law specifically allows hunting with firearms by TCC tribal members in the Dalton Highway corridor, whereas state law does not.22 22 Compare 36 CFR § 242.26 (19)(ii)(C) ("The residents of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Evansville, Stevens Village, and residents living within the Corridor may use firearms within the Corridor only for subsistence taking of wildlife") with 5 AAC 92.530 (7)	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input on cultural resources and ANICLA Section 810. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan was developed considering a large quantity of input including public comment, the results of tribal consultation, and the outcome of the ANILCA Section 810 hearings held January 28 and February 4, 2021. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	17	PLO 5150	209.0202.00	Not only would tribal communities lose the protection of ANILCA in regard to the land near the Dalton Highway, they would lose access to the federal cultural resources processes associated with the National Historic Preservation Act (NHPA) Section 106 and other laws that provide for tribal consultation.23 The State of Alaska does not have a formal relationship with any of the state's 229 federally recognized tribes commensurate with the federal process. There are no equivalent mechanisms for consultation under state law. The Alaska Historic Preservation Act does not provide any formal means for a Tribal government to consult with the state government on the identification and protection of tribal cultural resources. Therefore, transfer of public lands to the state will increase the likelihood of categorical adverse effects to tribal cultural resources within the planning area without recourse. The categorical transfer of land in the corridor would also pose adverse effects to traditional cultural properties in the corridor. 23 DEIS 3-100 acknowledges this but provides no mitigation measures to address this problem.	The potential for loss of cultural resource related protections under federal law due to the recommended full or partial revocation PLO 5150 is discussed by the relevant alternatives in Section 3.2.9 of the Proposed RMP/Final EIS. The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input on cultural resources and ANICLA Section 810. The BLM considered a reasonable range of alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full), to maintaining PLO and ANCSA withdrawals. The Proposed Plan was developed considering a large quantity of input including public comment, the results of tribal consultation, and the outcome of the ANILCA Section 810 hearings held January 28 and February 4, 2021. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	18	PLO 5150	209.0202.00	Despite these foreseeable harmful results, the draft plan arbitrarily asserts that "Revocation of PLO 5150 would result in no or minimal impacts on residents of Anaktuvuk Pass, Allakaket, Alatna, Bettles, and Evansville."24. Public and written comments from affected communities and tribal leadership clearly contradict this position. PLO revocation will clearly impact TCC communities by restricting access, opening a larger scale of competition for already known limited resources, and increasing the potential for novel access routes across undeveloped habitat for mineral development that degrade habitat in the corridor. Further, we are particularly concerned about the areas of PLO 5150 that overlap with current ACECs and the removal of both measures could result in egregious trespassing and unauthorized uses. Consequently, not only would the ACEC special considerations be lost over areas that are currently deemed appropriate for more intensive management based on resource science, the loss of the public land management paradigm of sustained yield could severely compromise the integrity of habitat conservation in the Dalton Highway utility corridor. In particular, increased use of unauthorized ATVs would contribute to tundra damage. 24 DEIS R-13.	**Appendix R** explains this conclusion: Alternative B. Revocation of PLO 5150 in the outer corridor would result in no or minimal impacts on residents of Anaktuvuk Pass, Allakaket, Alatna, Bettles, and Evansville. Residents of Anaktuvuk Pass do not subsist on lands in the outer corridor and would therefore not be impacted by the revocation under Alternative B. Small portions (< 5 percent) of the Allakaket, Alatna, Bettles, and Evansville subsistence use areas overlap the outer corridor, but the core subsistence use areas for these communities would not be impacted by revocation of PLO 5150 under Alternative B and impacts on these communities' access to subsistence resources would be minimal.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	19	PLO 5150	209.0202.00	Given the rationale above, the evaluation of the multitude of factors that contribute to cumulative effects of revoking PLO 5150 should be more expansive. BLM has a duty to elaborate on the type and magnitude of these foreseeable effects; it should consider public input more thoroughly in their evaluation of how land transfers would adversely impact cultural and subsistence resources. There is a need for a more robust analysis on how revocation would affect the ability of affected Tribal governments' involvement in the federal resource management processes designed to conserve and protect those resources under the multiple use and sustained yield principles. The proposed action of revoking PLO 5150 is highly controversial and poses the largest source of user conflicts with affected Tribal governments and rural communities.	The RMP/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. The RMP/EIS provided sufficiently detailed information to aid in determining whether to proceed with the Preferred Alternative or make a reasoned choice among the other alternatives in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives. The BLM appropriately evaluated reasonable range of alternatives, and the Proposed Plan was developed from this range in consideration of a large quantity of input. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	20	PLO 5150	209.0202.00	We urge BLM to recommend retaining PLO 5150 to the maximum extent possible, on grounds that the lands and federally qualified subsistence users would be better served under federal management. If the Interior Secretary is not able to retain PLO 5150, we suggest that only a partial revocation should be permitted, with withdrawal continued for the inner corridor adjacent to the highway (akin to Alternative B). The justification for this is: 1) these lands are largely being used for the purpose for which they were set aside (transportation and utility) and there may be a supplemental infrastructure need in the future for the proposed Alaskan natural gas pipeline; and 2) lifting the PLO 5150 on these lands would open the area to a substantially larger pool of non-local hunters and pose further food insecurity threats to affected communities, increase trespassing and related unauthorized uses, and open the area to further resource extraction. All of these foreseeable consequences h pose direct conflicts with the management of the TAPS, the Dalton Highway and associated current and future major energy and transportation infrastructure.	The Proposed Plan, Alternative E, does not recommend revoking PLO 5150.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	24	PLO 5150	209.0202.00	The findings that there are no significant impacts under ANILCA 810(28) is dubious and may be the weakest concluding evaluation of any section of the interdisciplinary analysis of the draft RMP. A conclusion of no significant impact directly contradicts findings in Appendix Q and environmental justice analysis which found that for alternatives C2 and D, subsistence resources would continue to degrade and federally qualified subsistence users would face increased competition for resources.29. There is no question that revocation of PLO 5150 and a jurisdictional transfer to the State of Alaska would have a major impact to federally qualified users. This subject has been previously discussed and debated in federal and state game hearing since the construction of TAPS and local users have been steadfast in their view that increased access will be detrimental to wild food resources and the habitat that supports wild food economies. We understand that the subsistence analysis in Appendix Q is broader than the ANILCA analysis, which is limited in scope to abundance, availability, and access. Our interpretation of the analysis and conclusions imply a broader impact. Appendix Q suggests that subsistence resources and access will be reduced, and the foreseeable reduction of access to those resources are applicable to a broader demographic of subsistence users than only Wiseman and Coldfoot, the two small non-Native communities along the Dalton Highway. 28 See DEIS R-15 (C2) and R-17 (D). 29 DEIS 380, 381, Q-76, Q-77	The BLM reviewed and adjusted the ANICLA 810 analysis based on these comments as well as many others and the addition of the Proposed Plan, Alternative E. Management proposed under Alternative E is responsive to the concerns raised by this comment, most relevant being that no revocation of public land orders would be recommended. **Appendix Q**, Subsistence Uses and Resources, considers a wide range of impacts on subsistence uses and resources due to management under the alternatives considered in the RMP/EIS, including impacts resulting from a full or partial revocation of PL 5150. The final ANILCA 810 evaluation concludes that Alternative E would not result in a significant restriction in subsistence uses.
Georgette	Susan	Selawik National Wildlife Refuge	None	201	1	PLO 5150	209.0202.00	We strongly recommend maintaining the existing Public Land Orders (PLOs) 5173 and 5184 that have withdrawn lands from locatable mineral entry. These PLOs encompass the southern drainages of the upper Selawik River, which flow into the designated Selawik Wild River. Revocation of these PLOs would put refuge resources at risk through potential impacts to water quality, fish resources, and wildlife populations through mining or other development. The Outstanding Remarkable Values of the Selawik Wild River include fisheries (spawning grounds for sheefish and whitefish), water quality and quantity, subsistence, and riparian habitat for a wide range of wildlife resources. If these PLOs are not maintained, we urge BLM to pursue new FLPMA withdrawals and/or implement mandatory conservation measures on these tributaries to minimize impacts of potential development activities on the Selawik NWR watershed.	The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	13	PLO 5150	209.0202.00	Public Land Withdrawals (ANCSA 17 d-1 and PLO 5150) The TRCP strongly opposes the full revocations of public land withdrawals on 7.4 million acres of BLM managed land in the Central Yukon planning area, as proposed in the preferred alternative. These lands have been withdrawn from mineral entry and other land disposal actions for decades, as a result of a series of public land orders (PLOs) designated by Section 17(d)(1) of the Alaska Native Claims Settlement Act (ANCSA) and PLO 5150, which was withdrawn for use as a utility and transportation corridor. Revoking these withdrawals poses serious consequences to hunters and anglers, especially subsistence harvesters. Opening unencumbered lands to mineral leasing and mineral entry could result in fish and wildlife habitat disturbances and diminished public access for recreational hunting and fishing. Revocation of these PLOs would also make lands available for state selection and conveyance, which would result in the loss of subsistence hunting opportunities for federally qualified users. This is the opposite of ANILCA's intent; Section 801 of the legislation states that, "the continuation of the opportunity for subsistence uses by rural residents of Alaska, including both Natives and non-Natives…is essential."	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place. **Appendix R** analyzes the effects of the alternatives, including the alternatives about PLO 5150, on subsistence uses.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	17	PLO 5150	209.0202.00	Regarding PLO 5150, FLPMA (Section 102) provides clear direction that, "it is the policy of the United States that the public lands be retained in federal ownership, unless as a result of the land use planning procedure provided for in this Act, it is determined that disposal of a particular parcel will serve the national interest." The draft RMP does not demonstrate how transferring public lands within the Dalton Highway corridor-which are currently managed as a critical component of the domestic oil and gas transportation system-serves the national interest in a manner that exceeds the current management approach by the BLM.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The Proposed RMP/Final EIS only proposes revocation of effective selections."
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	18	PLO 5150	209.0202.00	Further, a decision to revoke PLO 5150-which could result in the transfer of ownership of the Dalton Corridor to the State that would likely result in increased intensive development activities-could threaten the legislated purposes of adjacent conservation system units that are managed for the protection of resources values.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full), to modification, to maintaining PLO 5150. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The Proposed RMP/Final EIS only proposes revocation of effective selections."
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	26	PLO 5150	209.0202.00	The TRCP supports and recommends the adoption of the Dalton Corridor Backcountry Conservation Area (BCA) as identified in Alternative B. These backcountry lands sustain high quality big game, fish habitat, and subsistence opportunities, and are widely appreciated by the public for hunting, fishing and other wildlife-dependent outdoor recreation. This management approach conserves valuable areas and supports public access while providing necessary multiple-use flexibility for active habitat restoration and allowing for limited resource development, assuming those activities do not contribute to the fragmentation of intact habitat within the BCA. Adoption of the Dalton Corridor BCA would help the BLM implement Executive Order 13443 on the Facilitation of Hunting Heritage and Wildlife Conservation, which seeks to ensure that hunting and hunters continue to play a central role in wildlife and habitat conservation. Department of the Interior (DOI) Secretarial Orders supported by this action include: * S.O. 3347: Conservation Stewardship and Outdoor Recreation, which advances conservation stewardship, improves game and habitat management, and increases outdoor recreation opportunities by directing bureaus and agencies to immediately identify areas where recreation and fishing can be expanded. * S.O. 3356: Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories, which seeks to expand access on public and private lands and to promote hunting and fishing among youth, veterans, and people of color.	Thank you for your comment. The BLM considered applicable Secretarial and Executive Orders in review of the effects of the analysis, including S.O 3347, S.O. 3356, and E.O.13443. Alternative E, the Proposed Plan, was developed from the range of alternatives identified in the Draft RMP/EIS, which included designating the Dalton Corridor BCA or not. Under Alternative E, the Dalton Corridor BCA would be designated.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	27	PLO 5150	209.0202.00	We encourage the BLM to consider the following actions to ensure that the Dalton Corridor BCA complies with the management criteria and guidance provided in IM 2017-036 under Formulation of Resource Management Alternatives: * Develop distinct goals for habitat and recreational opportunities. * The fish/wildlife objective(s) should be measurable and "should ensure that the intact and undeveloped character of the land and habitat will be protected from fragmentation and development, and improved, where possible, to better protect backcountry resources. * The recreation objective(s) should also be measurable and "should focus on protecting and enhancing high-quality wildlife-dependent recreation opportunities. * Include resource use determinations (e.g., OHV designations, ROW avoidance or exclusion areas, recommendations for locatable mineral withdrawals, caps on surface-disturbing activities); they are omitted entirely from the draft RMP. * Include land tenure decisions that support backcountry conservation goals, and "consider retaining in federal ownership those lands within the area under consideration for backcountry conservation management." Along similar lines, IM 2017-036 requires the BLM to "consider allowing for acquisition of key parcels or easements adjacent to or within the areas under consideration for backcountry conservation management in order to support conservation and connectivity of important fish and/or wildlife habitats and/or improved public access. * Establish monitoring and evaluation standards to "ensure that the fish/wildlife and recreation objectives are being met."	The BLM has considered the suggestions made here, and the Proposed Plan is in compliance with the guidance found in IM 2017-036. For more information on the management actions and goals related to wildlife and recreation in the Dalton Highway BCA please see Table 2-7 in Chapter 2, and **Appendix K** of this Proposed RMP/Final EIS.

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Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	29	PLO 5150	209.0202.00	It is also important to note that the proposed BCA in Alternative B would be nullified if the outer Dalton Corridor (PLO 5150) land withdrawal is revoked and those lands are transferred to the State (also a recommended action in Alternative B). This scenario is incompatible with the BLM Land Use Planning Handbook (p. 21), which states, "All components of an individual alternative must be complementary. Desired outcomes, allowable uses, and management actions can (and probably will) conflict from one alternative to the next. However, they must not conflict within any one alternative."	Alternative B recommends a partial revocation of the Outer Corridor of PLO 5150. If the BLM's approved RMP makes the decision to choose Alternative B, the Outer Corridor would remain unencumbered and closed until the Secretary of the Interior acts on the recommendation and withdrawal is revoked. If the Secretary were to do so, then the Outer Corridor's State of Alaska top-filing would change to valid selections and the land would be encumbered. If land is conveyed to the State of Alaska (likely land from Priority 1 and 2 State selections), then the decision in the BLM's RMP would no longer apply. Federal management would no longer be in place and access would be impaired. However, the BLM cannot foresee what management the State of Alaska would apply if PLO 5510 were conveyed.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	50	PLO 5150	209.0202.00	Public Land Withdrawals (ANCSA 17 d-1 and PLO 5150) The TRCP strongly opposes the full revocations of public land withdrawals on 7.4 million acres of BLM managed land in the Central Yukon planning area, as proposed in the preferred alternative. These lands have been withdrawn from mineral entry and other land disposal actions for decades, as a result of a series of public land orders (PLOs) designated by Section 17(d)(1) of the Alaska Native Claims Settlement Act (ANCSA) and PLO 5150, which was withdrawn for use as a utility and transportation corridor. Revoking these withdrawals poses serious consequences to hunters and anglers, especially subsistence harvesters. Opening unencumbered lands to mineral leasing and mineral entry could result in fish and wildlife habitat disturbances and diminished public access for recreational hunting and fishing. Revocation of these PLOs would also make lands available for state selection and conveyance, which would result in the loss of subsistence hunting opportunities for federally qualified users. This is the opposite of ANILCA's intent; Section 801 of the legislation states that, "the continuation of the opportunity for subsistence uses by rural residents of Alaska, including both Natives and non-Natives…is essential."	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	52	PLO 5150	209.0202.00	As demonstrated in the tables below, only Alternative A maintains both the ANCSA d-1 withdrawals and PLO 5150. See Attached comment letter for ANCSA 17 d-1 Land Allocation table and PLO 5150 Land Allocation table. In summary, the TRCP recommends the following actions be reflected in the final RMP: * Maintain PLO 5150 in its entirety (2,138,000 acres) in the proposed RMP as proposed in Alternative A. * Maintain all ANCSA d-1 withdrawals (5,253,000 acres) in the proposed RMP as proposed in Alternative A.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
National Wildlife Refuges	Koyukuk	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Northern Unit of Innoko National Wildlife Refuges	205	15	PLO 5150	209.0202.00	We strongly recommend amending Alternative B (or any alternative which is selected as preferred) to prevent full revocation of PLOs 5173, 5179, 5180, 5184, and 5186 which would otherwise put Refuge resources at risk through potential impacts to water quality, fisheries, and wildlife populations (including caribou). Portions of high-value watersheds adjacent to Koyukuk, Nowitna, and Innoko NWRs, (including areas identified as ACECs in this plan), and areas within the Galena Mountain Caribou Herd core calving grounds would be made available for conveyance to the State. More than 95% of the BLM lands adjacent to the Koyukuk Nowitna and Innoko Refuges lands are identified as State of Alaska or ANCSA 17(d)(1) selected lands. Once a Record of Decision is made for this Central Yukon RMP, all of those lands could be conveyed within 10 years to the State of Alaska or the Native Tribes. If that occurs there will be no protections for any affected ACECs, wilderness priority, or WSR lands that are currently identified in Alternative B, our preferred alternative.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full), to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	13	PLO 5150	209.0202.00	The draft Plan has not made clear how transferring public lands within the Dalton Highway Corridor (Corridor) will serve the national interest in a manner that surpasses that of current management by the BLM. Currently lands within the Corridor are managed as an essential component of the national domestic oil and gas transportation system. It provides a route to transport a significant portion of the nation's petroleum; and the present and future importance of access to these resources cannot be overstated.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full), to modification, to maintaining PLO 5150. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The Proposed RMP/Final EIS only proposes revocation of effective selections."
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	15	PLO 5150	209.0202.00	Finally, the retention of these lands under federal management ensures that no unnecessary or undue degradation of these resources and services will take place and that these resources will be managed in a sustainable manner for use and enjoyment by future generations.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The Proposed RMP/Final EIS only proposes revocation of effective selections."
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	18	PLO 5150	209.0202.00	Upon review of these criteria it is apparent that criteria 1 and 2 do not apply for PLO 5150. Criteria 3 could be construed in part, to be met by State management in that it would continue to manage the corridor for its primary purpose as an essential component of the national domestic oil and gas transportation system. Expansion of communities and economic development is currently occurring on lands outside of the Corridor as evidenced by mining interests in the Ambler Mining District, and now the recently approved Ambler Mining Road, and on State lands north, east and west of Bettles and east of Wiseman. Transfer of the Corridor to State management would not outweigh other public benefits and values addressed earlier in this comment.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	19	PLO 5150	209.0202.00	We recommend the alternatives be amended to maintain or modify the existing PLO 5150 until another mineral withdrawal is put in place that retains land in Federal ownership. Retention of PLO 5150 is warranted to provide temporary protection on the sensitive areas and resources that includes those we have described above. We contend that maintenance of these withdrawals is appropriate due to their continuing role in protecting refuge water, fish and wildlife resources from development. Where PLO 5150 is currently open to mining (outer corridor) we recommend a new FLPMA mineral withdrawal be put in place.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The Proposed RMP/Final EIS only proposes revocation of effective selections."
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	20	PLO 5150	209.0202.00	Lastly, another effect of BLM recommending full or partial revocation of PLO 5150, is further fragmentation of BLM land. BLM would administratively designate the inner corridor as a utility corridor that would be surrounded by State top-filed selections resulting in a potential scenario of BLM managed lands within a designated transportation corridor now disconnected and isolated from the BLM Central Yukon decision planning area, and surrounded by State lands.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The Proposed RMP/Final EIS only proposes revocation of effective selections."
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	60	PLO 5150	209.0202.00	We urge BLM maintain existing mineral withdrawals and PLO 5150 on lands within the identified benchmarks (in Alternative B) until new FLPMA withdrawals or modifications to existing withdrawals can be put in place, to maintain the unique benchmark characteristics, especially in light of using the proposed standard operating procedures (BLM Appendix F) that are not management decisions and thus not required for non-discretionary management actions like mining.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The Proposed RMP/Final EIS only proposes revocation of effective selections."
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	79	PLO 5150	209.0202.00	The draft Plan has not made clear how transferring public lands within the Dalton Highway Corridor (Corridor) will serve the national interest in a manner that surpasses that of current management by the BLM. Currently lands within the Corridor are managed as an essential component of the national domestic oil and gas transportation system. It provides a route to transport a significant portion of the nation's petroleum; and the present and future importance of access to these resources cannot be overstated.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The Proposed RMP/Final EIS only proposes revocation of effective selections."
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	80	PLO 5150	209.0202.00	We recommend the alternatives be amended to maintain or modify the existing PLO 5150 until another mineral withdrawal is put in place that retains land in Federal ownership. Retention of PLO 5150 is warranted to provide temporary protection on the sensitive areas and resources that includes those we have described above. We contend that maintenance of these withdrawals is appropriate due to their continuing role in protecting refuge water, fish and wildlife resources from development. Where PLO 5150 is currently open to mining (outer corridor) we recommend a new FLPMA mineral withdrawal be put in place.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full), to modification, to maintaining PLO 5150. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The Proposed RMP/Final EIS only proposes revocation of effective selections."

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Fox	Joanna	U.S. Fish and Wildlife Service	Kanuti National Wildlife Refuge	208	1	PLO 5150	209.0202.00	Revocation of the ANCSA 17 (d)(1) withdrawals and especially the PLO 5150 outer corridor withdrawal in all action alternatives, as well as the State's top-filing of those lands, threaten the legislated purposes of Kanuti NWR through increased likelihood of development on those lands and loss of subsistence priority when those lands leave the federal estate. To that end, we strongly recommend BLM retain the PLO withdrawals in both a) the outer corridor adjacent to, and especially upstream of Kanuti NWR and b) for those ANCSA and PLO withdrawals abutting the southeast corner of the Refuge as per Alternative A.	The current land use planning effort follows the land use planning procedure provided for in FLPMA. The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. Alternative E does recommend a partial revocation of the ANCSA 17(d)(1) withdrawals to allow for allotment selection for Alaska Native Vietnam Veterans in compliance with the Dingell Act. While the withdrawals are in place, remaining segregations would stay in place.
Reakoff	Jack	No organization name	None	8	1	Public Outreach	103.0100.00	The meeting process, as currently provided for the BLM-CY-RMP EIS, does not meet Federal open meeting statutes under PUBLIC LAW 94-409 referred to as the Sunshine Act, or Federal 40 CFR 1506.6, NEPA regulations, or ANILCA Title VIII sec. 810 (2). The public meeting process being used for this meeting process violates the spirit of the open meeting process regarding this very important Resource Management Planning process. Diligence is required to involve the public's ability to participate electronically, "When selecting appropriate methods for providing public notice, agencies shall consider the ability of affected persons and agencies to access electronic media." The affected communities for this meeting have very limited access to electronic bandwidth capacity to download the documents, let alone navigate the pre-registration and approval, to obtain the login links or the phone numbers to participate in the virtual meeting.	The BLM provided opportunities for the public to participate both in a live virtual public meeting, as well as through a self-paced virtual open house, accessible on the project website. Further, the BLM welcomes questions, comments, and conversations from the public outside of these forums.
Reakoff	Jack	No organization name	None	22	1	Public Outreach	103.0100.00	The public eliminate electronic process. The meeting process that's currently provided for the BLM Yukon River -- Yukon -- Central Yukon RMP/EIS does not meet the Federal Open Meetings Act and other public laws. And I will send this in, all these various regulations. This is a closed meeting. The public meeting process has to be used to consider selecting appropriate methods for providing public notices for agencies considered the ability of affected persons and agencies to access electronic media. Many people here don't have internet. Why are they on the phone? Because they don't have internet capabilities. And it's hard enough to download e-mail on limited bandwidth systems.	The BLM provided opportunities for the public to participate both in a live virtual public meeting, as well as through a self-paced virtual open house, accessible on the project website. Further, the BLM welcomes questions, comments, and conversations from the public outside of these forums.
Simon	Christopher	No organization name	None	27	1	Public Outreach	103.0100.00	I believe it is overly dependent upon the use of fast and reliable internet, which is not always the case in rural Alaska. In order to participate, one has to register via Zoom, and the issue today is staff need to realize that internet access is not always fast and not always reliable in rural Alaska. Basically, if you cannot register, then you cannot provide public comments. I did my best to help someone register online from the village today, for your behalf, so you could get public comments. To obtain additional comments, I believe it is -- to obtain additional comments, it is strongly recommended a toll-free number be publicized, as well, for those who want to call in rather than participate online.	The BLM provided opportunities for the public to participate both in a live virtual public meeting, as well as through a self-paced virtual open house, accessible on the project website. Further, the BLM welcomes questions, comments, and conversations from the public outside of these forums. Public comments were accepted during public meetings, via the BLM's ePlanning website, by email, and hard copy mail.
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	22	Public Outreach	103.0100.00	EPA appreciates that the draft EIS describes the efforts that have been taken to meaningfully involve affected communities in the resource management planning process to date, including holding public meetings during scoping and alternatives development stages. Residents of communities were also invited to nominate ACECs. The goal of meaningful involvement of potentially affected communities in the NEPA process is to enable community identified concerns or recommended mitigation measures to be incorporated in the analysis and decision-making process. Recommendation for the FEIS: Disclose the results of meaningful involvement efforts, such as community identified impacts of concern, recommended means to address those concerns, or ACEC nominations.	An ACEC report is available on the project website as of 2014. It describes all ACECs nominated and the BLM's evaluation of those areas for relevance and importance. Issues pertaining to the development of the plan were identified through scoping and described in a scoping report, available on the project website. These responses to public comments on the Draft RMP/EIS serve as the BLM's response to substantive comments on the Draft RMP/EIS.
Kron	Tom	Eastern Interior Alaska Subsistence Regional Advisory Council	None	91	1	Public Outreach	103.0100.00	The Council believes that the legality of the review process for the CYRMP/EIS is in question, and strongly opposes the BLM process used to inform the public of this plan. The Council also believes the opportunity to review and comment on this plan by rural communities in the Central Yukon planning region has been severely limited. Many affected communities in the region have inadequate access to technology, and in most cases, low bandwidth capacity to download the documents. Some residents cannot even navigate the pre-registration and approval requirements to submit comments. Many communities complained they were unable to obtain the login links, or a toll-free number to participate in the virtual meetings. The long-distance charges to call continental U.S. phone numbers are economically prohibitive for most rural residents. Finally, no hard copies of this plan were provided to members of the affected communities.	The BLM provided opportunities for the public to participate both in a live virtual public meeting, as well as through a self-paced virtual open house, accessible on the project website. Further, the BLM welcomes questions, comments, and conversations from the public outside of these forums. Public comments were accepted during public meetings, via the BLM's ePlanning website, by email, and hard copy mail. The BLM welcomes requests from the public to provide hard copies. The BLM fulfilled any such requests received.
Kron	Tom	Eastern Interior Alaska Subsistence Regional Advisory Council	None	91	2	Public Outreach	103.0100.00	The meeting process, as currently provided for the CYRMP/EIS, is not compliant with Federal 40 CFR 1506.6, National Environmental Policy Act (NEPA) regulations, or ANILCA Title VIII sec. 810 (2). Public Involvement under 1506.6 requires agencies to: (a) Make diligent efforts to involve the public in preparing and implementing their NEPA procedures (§ 1507.3 of this chapter). (b) Provide public notice of NEPA-related hearings, public meetings, and other opportunities for public involvement, and the availability of environmental documents so as to inform those persons and agencies who may be interested or affected by their proposed actions. When selecting appropriate methods for providing public notice, agencies shall consider the ability of affected persons and agencies to access electronic media. It is virtually impossible to electronically access the planning documents or decipher the scattered information for alternatives. The sheer volume of material is not accessible in a format that is user-friendly. It would take anyone many days to compare the alternatives. Synopsis keys are few, and largely obscure. The rushed BLM hearing process does not statutorily comply with ANILCA Title VIII Sec. 810; namely, to inform the subsistence users of the affects to their way of life, and receive their comments in a meaningful way.	The BLM provided opportunities for the public to participate both in a live virtual public meeting, as well as through a self-paced virtual open house, accessible on the project website. Further, the BLM welcomes questions, comments, and conversations from the public outside of these forums. Public comments were accepted during public meetings, via the BLM's ePlanning website, by email, and hard copy mail. The BLM welcomes requests from the public to provide hard copies. The BLM fulfilled any such requests received.
Pelkola	Jenny	Western Interior Alaska Subsistence Regional Advisory Council	None	93	1	Public Outreach	103.0100.00	The Council believes that the legality of the review process for the CYRMP/EIS is in question, and strongly opposes the BLM process used to inform the public of this plan. The Council also believes the opportunity to review and comment on this plan by rural communities in the Central Yukon planning region has been severely limited. Many affected communities in the region have inadequate access to technology, and in most cases, low bandwidth capacity to download the documents. Some residents cannot even navigate the pre-registration and approval requirements to submit comments. Many communities complained they were unable to obtain the login links, or a toll-free number to participate in the virtual meetings. The long-distance charges to call continental U.S. phone numbers are economically prohibitive for most rural residents. Finally, no hard copies of this plan were provided to members of the affected communities.	The BLM provided opportunities for the public to participate both in a live virtual public meeting, as well as through a self-paced virtual open house, accessible on the project website. Further, the BLM welcomes questions, comments, and conversations from the public outside of these forums. Public comments were accepted during public meetings, via the BLM's ePlanning website, by email, and hard copy mail. The BLM welcomes requests from the public to provide hard copies. The BLM fulfilled any such requests received.
Pelkola	Jenny	Western Interior Alaska Subsistence Regional Advisory Council	None	93	2	Public Outreach	103.0100.00	The meeting process, as currently provided for the CYRMP/ EIS, is not compliant with Federal 40 CFR 1506.6, National Environmental Policy Act (NEPA) regulations, or ANILCA Title VIII sec. 810 (2). Public Involvement under 1506.6 requires agencies to: (a) Make diligent efforts to involve the public in preparing and implementing their NEPA procedures (§ 1507.3 of this chapter). (b) Provide public notice of NEPA-related hearings, public meetings, and other opportunities for public involvement, and the availability of environmental documents so as to inform those persons and agencies who may be interested or affected by their proposed actions. When selecting appropriate methods for providing public notice, agencies shall consider the ability of affected persons and agencies to access electronic media. It is virtually impossible to electronically access the planning documents or decipher the scattered information for Alternatives. The sheer volume of material is not accessible in a format that is user-friendly. It would take anyone many days to compare the Alternatives. Synopsis keys are few, and largely obscure. The rushed BLM hearing process does not statutorily comply with ANILCA Title VIII Sec. 810; namely, to inform the subsistence users of the affects to their way of life, and receive their comments in a meaningful way.	The BLM provided opportunities for the public to participate both in a live virtual public meeting, as well as through a self-paced virtual open house, accessible on the project website. Further, the BLM welcomes questions, comments, and conversations from the public outside of these forums. Public comments were accepted during public meetings, via the BLM's ePlanning website, by email, and hard copy mail. The BLM welcomes requests from the public to provide hard copies. The BLM fulfilled any such requests received.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Brower	Gordon	North Slope Subsistence Regional Advisory Council	None	95	1	Public Outreach	103.0100.00	The Council only became aware one business day prior to our meeting of this BLM management plan and potential impacts to lands used by subsistence communities in the North Slope region. It became clear from discussion with other rural subsistence communities and a neighboring Subsistence Council representative that even those who were aware of this BLM EIS process were unable to access online documents, and only through great effort and expense were they able to connect to the virtual public hearing, if at all. Prior to our February 22-23 meeting, the Council and had not previously heard at all about this management plan and were completely unaware of the potential impacts to North Slope subsistence communities who have Customary and Traditional Use determinations for subsistence hunting and fishing on federal lands under consideration in this management plan. North Slope communities such as Anaktuvuk Pass and Nuiqsut that should have been informed of this management plan directly were also unaware of its existence. Most rural communities in the region affected by this management plan do not have access to internet to get the EIS information, limited bandwidth, and are unable to download the large documents. Internet registration required to participate in public hearings is not accessible and the virtual platform essentially excludes all those rural subsistence communities that would be most affected by this plan.	The BLM provided opportunities for the public to participate both in a live virtual public meeting, as well as through a self-paced virtual open house, accessible on the project website. Further, the BLM welcomes questions, comments, and conversations from the public outside of these forums. Public comments were accepted during public meetings, via the BLM's ePlanning website, by email, and hard copy mail. The BLM welcomes requests from the public to provide hard copies. The BLM fulfilled any such requests received.
Little	Suzanne	The Pew Charitable Trusts	None	98	2	Public Outreach	103.0100.00	Virtual Public Hearings Limit Access and Feedback. The Central Yukon planning area communities experience significant internet limitations. Hard copies of the proposed RMP/EIS plan and alternatives were not provided to the affected communities with electronic challenges. Because of the pandemic, all public hearings, including the lawfully required ANILCA 810 public hearings, were held virtually and were conducted by phone or computer internet. Many planning area residents without phones or computers were unable to participate in the hearings. BLM should not require pre-registration and should send postcards to planning area Tribes and communities with an open phone number as well as computer links to foster public participation.	The BLM provided opportunities for the public to participate both in a live virtual public meeting, as well as through a self-paced virtual open house, accessible on the project website. Further, the BLM welcomes questions, comments, and conversations from the public outside of these forums. Public comments were accepted during public meetings, via the BLM's ePlanning website, by email, and hard copy mail. The BLM welcomes requests from the public to provide hard copies. The BLM fulfilled any such requests received.
Little	Suzanne	The Pew Charitable Trusts	None	98	5	Public Outreach	103.0100.00	Lack of adequate distribution of plan hard copies. Pew believes that paper copies of the Central Yukon Draft Resource Management Plan/Draft Environmental Impact System were not distributed to communities, meaning the materials could only be seen or downloaded from the BLM website. Because of limited internet connectivity, the BLM made small section downloads available. This was not a complete solution, as it required readers to move between 13 different downloadable documents, which could be difficult and confusing. BLM should invest in printing and distribution of plain-language hard copies of future planning documents.	The BLM welcomes requests from the public to provide hard copies. The BLM fulfilled any such requests received.
Brower	Charlie	North Slope Subsistence Regional Advisory Council	None	99	5	Public Outreach	103.0100.00	The affected communities in the Region have very limited access to electronic means or bandwidth capacity to download the documents, let alone navigate the pre-registration and approval to comment. Most of the effected communities cannot obtain the login links or the toll phone numbers to participate in the virtual meeting. No hard copies were provided to the communities. The long distance charges to call continental US phone numbers are prohibitive for most people. The meeting process, as currently provided for the BLM-CY-RMP/ EIS, is not compliant with the Federal open meeting statutes under PUBLIC LAW 94-409 referred to as the Sunshine Act, or Federal 40 CFR 1506.6, NEPA regulations, or ANILCA Title VIII sec. 810 (2). "When selecting appropriate methods for providing public notice, agencies shall consider the ability of affected persons and agencies to access electronic media." It is virtually impossible to electronically access the planning documents or decipher the scattered information for the Alternatives. The sheer volume of material is not laid out in a format that is user-friendly. It would take anyone many days to compare the Alternatives. Synopsis keys are few and obscure. The rushed BLM hearing process does not statutorily comply with ANILCA Title VIII sec. 810 (2 to inform the subsistence users of the affect to them, and receive their comments in a meaningful way.	The BLM provided opportunities for the public to participate both in a live virtual public meeting, as well as through a self-paced virtual open house, accessible on the project website. Further, the BLM welcomes questions, comments, and conversations from the public outside of these forums. Public comments were accepted during public meetings, via the BLM's ePlanning website, by email, and hard copy mail. The BLM welcomes requests from the public to provide hard copies. The BLM fulfilled any such requests received.
Costello	Naomi	Evansville Tribal Council	None	107	17	Public Outreach	103.0100.00	Another important cross-cultural concern about the shortcomings of the outreach and communication process was expressed by Jessie is that agency officials with BLM were unable to see the non-verbal behavior of the residents and would misconstrue their silence in public outreach sessions as consent to the proposed plan. She noted that many more elders would have participated in the hearings if it they had been held in the village. While it is true that the virtual format may have allowed participation from some who otherwise would not have been able to participate, this increased participation likely skews towards younger and more urban residents with access to technology. Thus, the public input was distorted.	The BLM provided opportunities for the public to participate both in a live virtual public meeting, as well as through a self-paced virtual open house, accessible on the project website. Further, the BLM welcomes questions, comments, and conversations from the public outside of these forums.
O'Reilly-Doyle	Kathleen	No organization name	None	112	4	Public Outreach	103.0100.00	The preliminary evaluation of impacts analyzed in the Central Yukon Draft RMP/ EIS found that associated impacts may significantly restrict subsistence uses. Therefore, the BLM will hold virtual public hearings on subsistence resources and activities in conjunction with the Central Yukon Draft RMP/EIS virtual public meetings for potentially affected communities. I did not find where the results of those public hearings have been incorporated into this Plan.	ANILCA 810 hearings were held along with NEPA Public Meetings for the communities of Coldfoot, Wiseman, Bettles, Evansville, Anaktuvuk Pass, Alatna, and Allakaket on January 28, February 2, and February 9 of 2021. These hearings included the opportunity for testimony by residents of the potentially affected communities. The results of these hearings are incorporated into this RMP/EIS most prominently in Section R.3 **Appendix R**, ANILCA Section 810 Preliminary Evaluation in addition to being considered in the evaluation. The transcripts from the ANILCA 810 hearings and other public meetings are available on ePlanning here: https://eplanning.blm.gov/eplanning-ui/project/35315/570
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	5	Public Outreach	103.0100.00	Though the ongoing COVID-19 pandemic requires the Bureau to adjust the mechanisms it uses to engage with Tribes, the agency's environmental justice obligations compel the agency to find ways to meaningfully involve Tribes in the decisions that affect them. The agency's recent virtual meetings posed challenges for planning area communities with limited internet connectivity. All but one of those meetings occurred during daytime work hours, which made it difficult for many community members to attend. The limited participation at those meetings highlights that the agency must do more to facilitate the meaningful involvement of planning area Tribes and community members.	The BLM provided opportunities for the public to participate both in a live virtual public meeting, as well as through a self-paced virtual open house, accessible on the project website. The BLM did not want to potentially spread COVID throughout rural communities in Alaska, and therefore virtual meetings were the best way to prevent that. Further, the BLM welcomes and continues to welcome questions, comments, and conversations from the public outside of these forums.
Gestring	Bonnie	Earthworks	None	146	64	Public Outreach	103.0100.00	The Central Yukon planning area communities experience significant internet limitations. Because all public hearings, including the lawfully required ANILCA 810 public hearings, were held virtually due to the pandemic and were conducted by phone or computer internet, many planning area residents without phones or computers were unable to fully participate in the hearings. BLM's virtual public hearings on the Central Yukon Draft Resource Management Plan consistently limited public comments to three minutes despite having few testifiers and ample time for testimony. The agency sent a postcard notification to some communities that have no internet with only an internet link and no phone number that would allow participation. In Alaska, the federal government is required to conduct an additional subsistence hearing as required under ANILCA Section 810 to achieve testimony on how people's lives would be affected by the plan's verified impacts to subsistence resources. In the public hearing, BLM announced the "ANILCA 810 Hearings" and emphasized why it is important to hear from people, but the agency failed to communicate what specific information the agency is seeking from people: the impacts to people's lives given the anticipated subsistence impacts verified in the proposed plan. BLM's ANILCA 810 public hearings, meant to gain input from planning area residents on findings in the DEIS of significant impacts on subsistence resources, were so poorly administered that BLM achieved very few subsistence impact comments.	The BLM provided opportunities for the public to participate both in a live virtual public meeting, as well as through a self-paced virtual open house, accessible on the project website. Further, the BLM welcomes questions, comments, and conversations from the public outside of these forums.
Gestring	Bonnie	Earthworks	None	146	66	Public Outreach	103.0100.00	BLM provided few paper copies of the Central Yukon Draft Resource Management Plan/Draft Environmental Impact System and has required the public to download the materials from the BLM website. Village internet connectivity is limited and BLM made small section downloads available, but this created difficulty, requiring a reader to bounce between 13 different downloadable documents. This is a significant barrier to local planning area residents' understanding of the plan and ability to comment on the plan.	The BLM welcomes requests from the public to provide hard copies. The BLM fulfilled any such requests received.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	14	Public Outreach	103.0100.00	We believe additional coordination and consultation with tribes, villages/communities, and rural residents is necessary to understand their concerns on the impacts of the RMP and to identify priority conservation areas to protect subsistence resources, access, and traditional and cultural lands. There are 20 federally recognized tribes and the communities of Wiseman/Coldfoot in or near the planning area and with COVID-19 travel restrictions, the normal, more effective face-to-face public meetings are not being held. The BLM's EIS planning process should provide more public comment teleconferences using open 800-numbers instead of requiring online registering which is limiting rural resident participation; share more readily hard copies of materials; and work with tribes and communities on how best to achieve productive sharing of information and dialogue. We recommend integrating local knowledge with scientific analysis to document and estimate the relative effects that specific environmental conditions (i.e., permafrost thaw, vegetation changes, wildfire disturbance, water availability) are having on access to subsistence resources across the 13.1 million-acre planning area (Binley et al. 2021, Cold et al. 2020, Waldrop 2021).	The BLM provided opportunities for the public to participate both in a live virtual public meeting, as well as through a self-paced virtual open house, accessible on the project website. Further, the BLM welcomes questions, comments, and conversations from the public outside of these forums. Public comments were accepted during public meetings, via the BLM's ePlanning website, by email, and hard copy mail. The BLM welcomes requests from the public to provide hard copies. The BLM fulfilled any such requests received.
Lavin	Pat	Defenders Of Wildlife	None	193	3	Purpose and Need	103.0300.00	BLM Should Modify the Purpose and Need Statement. BLM originally set forth the purpose and need for this RMP in its Analysis of the Management Situation (AMS).1 Two RMPs and one management framework plan are not responsive to current issues in the planning area and don't encompass the full desired range of decisions to be covered. There are also gaps in the planning area not covered by any of the plans. This general description seems more accurate and appropriate than the purpose and need statement in the DEIS. 1 BLM, Analysis of the Management Situation, Central Yukon Resource Management Plan (April 2016) at 1. There, BLM suggests that there is a need to revise the RMP to make lands available for selection as allotments by Alaska Native Vietnam-era veterans under the 2019 Dingell Act.2 Since the Dingell Act was not enacted until 2019, it clearly had nothing to do with the original purpose of revising the RMP when the process began years earlier. Further, there is no "need" to amend the RMP to enable the selection of allotments under the Dingell Act because there are already 1.5 million acres available for selection under that program, more than adequate to meet the need. The Dingell Act did not direct BLM to amend any RMPs, lift any PLOs, or take any other land status actions to make additional lands available for selection, and did not require the Central Yukon or any other specific planning area to provide additional lands for that purpose.3 2 DEIS at ES-3. 3 Public Law 116-9, Section 1119 (March 12, 2019).	The Dingell Act did not change the purpose and need of the Central Yukon RMP. The Dingell Act informs the RMP process as the RMP must comply with existing laws. While the Dingell Act addressed many issues found in previous allotment programs, during scoping for the regulations implementing the Act, the BLM and the DOI heard from Alaska Natives that the pool of available lands open for selection is not sufficient (See DOI-BLM-AK-0000-2021-0005-EA on the BLM ePlanning website for further information regarding implementation of the Dingell Act). Under alternative E, the BLM considered revoking partially the existing ANCSA 17(d)1 withdrawals to allow for Alaska Native Vietnam-era veteran selections.
Cole	Jeanie	No organization name	None	32	2	Range of Alternatives	103.0400.00	Under Ishtalitna Creek and McQuesten Hot Springs it mentions EO 5389 under Alt A, Alt B maintains the withdrawal. It says no similar action under Alts C1-D. Does this mean that BLM plans to revoke EO 5389 under the other alts? Or would it still apply even though these would not be designated as ACEC/RNA? suggest clarify or add a reference for another table that addresses what is proposed for EO 5389 under the various alts. Does this EO also apply to Kanuti HS, as the table does not mention it there.	Under Alternatives C1, C2, D, and E, Ishtalitna Creek Hot Springs and McQuesten Creek would not be recommended for withdrawal. Kanuti Hot Springs is currently withdrawn and remains withdrawn under all alternatives.
Chichester	Barbara	No organization name	None	60	1	Range of Alternatives	103.0400.00	The BLM's preferred alternative (C2) takes an extreme approach to land use management in the Central Yukon region, emphasizing resource extraction over all other land uses. It would open 99% of the BLM-managed lands in the planning area to oil and gas and mining, and eliminate 96% of the acreage designated as Areas of Critical Environmental Concern (ACECs) that safeguard crucial salmon and sheefish spawning areas and caribou calving grounds. It would forego protections for migratory corridors and Dall Sheep habitat. It predicts that subsistence resources would continue to degrade, and subsistence users would face increased competition for resources. To provide a more balanced approach, we urge the BLM to select a modified Alternative B, which incorporates the management actions proposed in Alternative B, but with the following changes: 1) Retain the Public Land Order (5150) in its entirety for the Dalton Highway corridor, 2) Maintain existing ANCSA (d)(1) mineral withdrawals that protect against hardrock mining, 3) Recommend locatable mineral withdrawals for all ACECs and RNAs that aren't covered by existing ANCSA (d)(1) mineral withdrawals, 4) Significantly increase the amount of Right-Of-Way exclusions to protect habitat connectivity in the key connectivity areas outlined in Appendix G. Incorporate a Right of Way (ROW) exclusion area for the Jim River ACEC. 5) Adopt the newly-designated Core Caribou Habitat (746,000 acres) proposed in Alt. C1. Establish core caribou habitat for the Hodzana Herd. Include additional safeguards for caribou, such as restrictions on OHV use and other surface-disturbing activities during calving periods. 6) Adopt the newly designated Dall Sheep Habitat Areas, Dall Sheep Movement Corridors, and Dall Sheep Study Area (538,900 acres combined) proposed in Alt. C1. Modify these areas to provide additional safeguards for Dall sheep, such as restrictions on development activities within 0.5 miles of mineral licks. A modified Alternative B allows for responsible resource development, while also providing management actions that better protect other important land uses, such as maintaining high quality fish and wildlife habitat, planning for connectivity corridors, and adaptability to climate change.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail.
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	25	Range of Alternatives	103.0400.00	As stated in the draft EIS, "[t]he goals of the [Central Yukon Resource Management Plan] are to establish a structure for understanding conditions and trends across multiple scales, adapting to changes in conditions and trends, and facilitating informed decisions to sustain healthy, productive lands that support the BLM's multiple-use mission over the life of the plan. The BLM proposes to fulfill these goals by sustaining landscape connectivity between major conservation units and monitoring representative ecological benchmarks." Appendix G - Adaptive Management Framework describes the objectives and strategy for the use of the Benchmarks and identifies Benchmarks to be used under Alternatives B and C1. The Standard Operating Procedures in Appendix F define specific actions that would be taken in the Ecological Benchmark areas under these two alternatives. It is not clear from the draft EIS how the BLM would accomplish the adaptive management goals under the preferred Alternative C2. Recommendation for the FEIS: Define the Ecological Benchmarks that would be used under Alternative C2 or provide a separate strategy for monitoring and adaptive management under this alternative. If Ecological Benchmarks are not included in the preferred alternative, state this clearly in Section 1.8 of the final EIS.	Ecological benchmarks exist in all alternatives. However, the BLM would actively manage to contribute to the function of ecological benchmarks under Alternatives B, C1, and E.

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Farr	dean	Izaak Walton League Public Lands Committee	None	71	1	Range of Alternatives	103.0400.00	The final RMP should align with the agency's goals for managing fish and wildlife in the region. Under Alt. C2, wildlife could be affected by mining in 100% of the planning area-as opposed to 52% under the existing plan-since all lands would open to locatable mineral entry. The agency's own analysis acknowledges that the preferred alternative would result in adverse impacts to high-value fish habitat, increase the loss of important habitat for Dall sheep, and could result in caribou population declines. -Recommendation: Adopt the newly designated Dall Sheep Habitat Areas, Dall Sheep Movement Corridors, and Dall Sheep Study Area (538,900 acres combined) proposed in Alt. C1. Modify these areas to provide additional safeguards for Dall sheep, such as restrictions on development activities within 0.5 miles of mineral licks. -Recommendation: Adopt the newly designated Core Caribou Habitat (746,000 acres) proposed in Alt. C1. Include additional safeguards for caribou, such as restrictions on OHV use and other surface-disturbing activities during calving periods. -Recommendation: Adopt Areas of Critical Environmental Concern and Research Natural Areas as proposed in Alt. B. Of the 31 ACECs included in Alt. B, six are designated to protect Dall sheep habitat and four offer additional safeguards to caribou. The final RMP should support public access for hunting, fishing, and other forms of recreation The planning area provides outstanding opportunities for sightseeing, fishing, hunting, river trips, day hikes, wildlife viewing, bird watching, and photography. Recreational demand is expected to increase along the Dalton Highway over the life of the plan. By adopting the proposed Dalton Corridor Backcountry Conservation Area, the BLM could conserve big game habitat, provide world-class backcountry recreation experiences, and allow for traditional uses of these lands to continue. -Recommendation: Adopt the Dalton Corridor BCA (1,605,000 acres) proposed in Alt. B. The final RMP should retain long-standing public land orders to ensure that some lands remain withdrawn from mineral entry. All of the "action alternatives" included in the draft plan revoke at least part of Public Land Order 5150 (Dalton Highway Corridor) and all ANCSA 17 d-1 lands. These areas-7.4 million acres combined-have been withdrawn from mineral entry since the 1970s. Revoking the PLOs would negatively impact subsistence access for rural residents in the planning area. Recreational hunting opportunities could also be threatened by declines in wildlife if these lands are conveyed to the State of Alaska and later developed. -Recommendation: Maintain PLO 5150 in its entirety (2,138,000 acres) as proposed in Alt. A. -Recommendation: Maintain all ANCSA d-1 withdrawals (5,253,000 acres) as proposed in Alt. A.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS.
Raynolds	Martha	No organization name	None	74	5	Range of Alternatives	103.0400.00	Alternative B is described as the option that "emphasizes resource protection over other uses". However, Alternative B would move 0.7 million acres from BLM to Alaska State ownership, would designate 0.2 million acres as meeting the criteria for disposal, release 1.4 million acres of land withdrawn under PL 5150, and release 5.3 million acres of land withdrawn under ANCSA. It would decrease the land closed to "Fluid Minerals" from 8.2 to 0.7 million acres, and increase the open area from 4.9 to 8.1 million acres. It would decrease the land closed to "Nonenergy Solid Leasable Minerals" from 4.7 to 0.7 million acres, and increase the open area from 4.9 to 7.2 million acres. It would decrease the land closed to "Locatable Minerals" from 8.2 to 0.7 million acres, and increase the open area from 6.7 to 10.9 million acres. Alternative B would also create 333,000 acres of transportation corridors to Ambler and Umiat. Alternative B has some proactive management options that are not in Alternative A, and Alternative B is the option that allows the most flexibility in adapting to climate change. That is a hugely important aspect, one that will be important for generations to come. Alternative B is by no means a conservation-focused alternative. BLM did not develop a Conservation Alternative in this Draft, so I cannot support any of the Alternatives as presented. For the reasons stated above, of the Alternatives presented in the Central Yukon Draft Resource Management Plan, I would support Alternative A (the No Action Alternative) as the best of the presented options. It would be a shame not to be able to incorporated the Caribou and Dall Sheep management plan in Alternatives C1/C2, or the work done to develop some of the proactive, adaptive management steps developed in Alternative B. Alternative B is by no means a conservation-focused alternative. BLM did not develop a Conservation Alternative in this Draft, so I cannot support any of the alternatives besides Alternative A	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS.
Raynolds	Martha	No organization name	None	74	6	Range of Alternatives	103.0400.00	To provide a more balanced approach, as required by BLM policy, I urge the BLM to modify Alternative B to include the following changes: 1) Retain the Public Land Order (5150) in its entirety for the Dalton Highway corridor (Alternative A), 2) Maintain all existing ANCSA (d)(1) withdrawals, particularly those that overlap with ACECs and RNAs and important connectivity areas (as described in App. G); If a determination is made to lift an ANCSA (d)(1) withdrawal; ensure that a FPLMA withdrawal is in place prior to revoking the ANCSA (d)(1) withdrawal. 3) Recommend withdrawals for all ACECs and RNAs that aren't covered by existing ANCSA (d)(1) locatable mineral withdrawals. 4) Reconsider original ACEC nominations and incorporate traditional ecological knowledge (TEK) in the review of all ACEC nominations. 5) Significantly increase the amount of ROW exclusions to protect habitat connectivity in key connectivity areas outlined in Appendix G. Incorporate a Right of Way (ROW) exclusion area for the Jim River ACEC. 6) Adopt the newly designated Core Caribou Habitat (746,000 acres) proposed in Alt. C1. Establish core caribou habitat for the Hodzana Herd. Include additional safeguards for caribou, such as restrictions on OHV use and other surface-disturbing activities during calving periods. 7) Adopt the newly designated Dall Sheep Habitat Areas, Dall Sheep Movement Corridors, and Dall Sheep Study Area (538,900 acres combined) proposed in Alt. C1. Modify these areas to provide additional safeguards for Dall sheep, such as restrictions on development activities within 0.5 miles of mineral licks. 8) Establish core caribou range for the northern caribou herds, namely the Western Arctic Caribou Herd (WACH) but also the Central Arctic and Porcupine Herds.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	47	Range of Alternatives	103.0400.00	The Alaska Chapter believes that the proposed decisions regarding Lands and Realty in the RMP/DEIS do not provide a range of alternatives that can support wildlife habitat connectivity into the future. All action alternatives propose revoking 100% of all PLO 5150 withdrawals in the outer Dalton Highway corridor with no provision for habitat connectivity between CSUs should these lands leave the federal domain. There are no action alternatives that retain all of the outer corridor, or a portion of the outer corridor. There are no action alternatives that indicate replacement FLPMA withdrawals will be recommended for the important habitat connectivity areas defined on page G9. We strongly recommend that the final action alternative selected in the RMP/FEIS recognize ALL of the important connectivity lands listed in 1 and 2 above (Arctic NWR to Gates NPP and Kanuti to Yukon Flats NWRs).	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	52	Range of Alternatives	103.0400.00	We applaud the BLM for inclusion of an Adaptive Management Framework and strategy to monitor effects of multiple use management and climate change on the landscape. We believe the set of Ecological Benchmarks proposed in Alternative B is an excellent part of an adaptive management strategy. Benchmarks should serve the BLM well in comparing areas that have intensive or moderate land uses (analogous to an experimental "treatment") versus areas of much less intensive use that would be monitored for changes (analogous to experimental "control"), (Appendix G, pg. G1-G7; SOPs Benchmark 1, 2, and 3, Appendix F, pg. F-15). We recognize that BLM has a robust national Assessment, Inventory and Monitoring (AIM) program (USBLM 2014 - AIM Technical note 445). We recommend that BLM incorporate a commitment to funding and supporting such efforts in their final action alternative, and this should be articulated in a finalized Appendix G and finalized version of Table 2-4 in the RMP/FEIS.	Incorporation of specific monitoring methods is not a plan-level decision. The BLM will continue to implement robust monitoring methods such as AIM as they are developed. This would be true under any alternative.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	53	Range of Alternatives	103.0400.00	Despite the above, we are concerned that the threshold of maintaining 85% intactness in SOP Benchmark 1 (Appendix F, pg. F-15) may not achieve the purpose of having sufficient valid spatial data in a "control" area benchmark to compare with the "experimental treatment" of more intensive multiple use management. We recommend that BLM consult with experts and perform modelling to determine AIM sensitivity and robustness in that sampled area, especially with climate change scenarios. These results should be incorporated into the Final RMP/FEIS. We believe that a threshold of <5% reduction of intactness would better achieve the goal.	The concepts of benchmarks and connectivity corridors are part of an adaptive management strategy. They will be continually monitored and updated with the best available science as warranted. There are no new management allocations associated with this adaptive management strategy. Both ecological benchmarks and connectivity corridors would be treated as resources on the landscape with defining attributes, and they would be managed for sustained yield for those defining attributes. While different benchmarks are identified under different alternatives, benchmarks under Alternatives B and E (the Proposed Plan) would be identical. Management of lands recognized as benchmarks would be the same under Alternatives B, C1, and E. Management would be accomplished by applying the SOPs (see the Proposed RMP/Final EIS, **Appendix F**). Connectivity corridors would be the same under Alternatives B, C1, and E. Landscape connectivity corridors would be the same under Alternatives B, C1, C2, D, and E.

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Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	54	Range of Alternatives	103.0400.00	The Wildlife Society strongly agrees with the statement in Appendix G-4, pg G-4: "The BEACONS geographic system products and techniques can also be used as a tool to identify areas with minimal conflict between maintaining ecological integrity and connectivity and potential development permitting scenarios." Our overall impression of the RMP/DEIS is that BLM tried to fit habitat conservation strategies such as connectivity corridors, benchmarks, wetlands, high value watersheds and riparian zones within a matrix of more intensive multiple uses. In contrast, the BEACONS process recommends proactively establishing the protective benchmarks areas first, and then fitting the multiple useless around those key areas (BEACONS 2017). We therefore request that BLM add an additional SOP "Benchmark 4" in Appendix F that requires managers to utilize BEACONS-type GIS products to identify areas with minimal conflict between maintaining ecological integrity and connectivity with each locatable mineral and ROW permit decision. That is one of the most useful tools of the BEACONS process (BEACONS 2017). Such data should be made available to the public to inform future permit-specific FLPMA Environmental Assessments in the NEPA comment process.	Rights inherent in the 1872 Mining Law prevent the BLM from using BEACONS data to deny locatable minerals operations. The benchmark SOPs, when taken together, inherently push operators to seek areas of high resiliency. No additional BMP was developed.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	57	Range of Alternatives	103.0400.00	It is of concern to us that miners can explore existing claims by performing surface disturbing activities on areas up to five acres under "notice operations" without a Plan of Operations or the guidance of SOPs and permit oversight. We recommend that the final RMP/FEIS require these 16 Appendix F SOPs apply to notice-level mining exploration operations of <5 acres (which is currently not the case) because such small operations are the source of many degradation problems. Alaska Chapter members have observed multiple instances of notice-level operators near the Dalton Highway failing to reduce their impacts to an acceptable level for protection of sensitive watershed areas and fish habitats. Because existing SOP's, policies, regulations, guidance, and actual compliance levels have not reversed the trend of degraded riparian and wetland habitat in placer-mined areas, as documented by BLM, above, we suggest better strategies would be: (1) reduce the amount of acreage open to locatable mineral development; (2) reduce the amount of acreage open to ROW development; (3) reduce the amount of acreage of revoked D1 and PLO 5150 withdrawals; (4) approve all of the ACEC recommendations in Alternative B to carry forward into the final selected alternative and NOT adopt the C1/C2 alternatives. (5) consider FPLMA withdrawals to replace D1 and PLO 5150 withdrawals in the most critical watersheds. We recommend the above changes especially in the watersheds that drain into valuable wildlife and fisheries habitats in seven affected National Wildlife Refuges: Arctic, Innoko, Kanuti, Koyukuk, Nowitna, Selawik, and Yukon Flats, and two affected National Park/Preserve units: Gates of the Arctic, and Denali.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS. The No Action alternative is part of the range of alternatives. As such, the Draft RMP/EIS discloses the effects of a range of alternatives from 50% of the planning area available for locatable mineral entry to 98% of the planning area available for locatable mineral entry. Because of the rights inherent in the 1872 Mining Law and the BLM's multiple-use mandate, this represents a range of reasonable alternatives.
Spindler	Mike	The Wildlife Society	None	83	1	Range of Alternatives	103.0400.00	The RMP/DEIS had no range of alternatives for BCA, only being proposed in Alternative B. Alternatives C1 and C2 should have designated at least a partial amount of BCA acreage.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS.
Spindler	Mike	The Wildlife Society	None	83	2	Range of Alternatives	103.0400.00	I recommend that an additional Wildlife goal and objective be added that emphasizes the importance of wildlife habitat quality, connectivity corridors, and prevention of habitat fragmentation, especially between Arctic NWR and Gates of the Arctic NP, and between Kanuti and Yukon Flats NWRs. The actions in Table 2-7 should be modified to recommend Right of Way (ROW) exclusion in the most critical connectivity corridors. I recommend that BLM carry forward the Dalton Highway Special Recreation Management Area (SRMA) from Alternative A into the final action alternative for the entire inner Dalton corridor north of the Yukon River crossing.	The Chapter 2 Alternatives, Wildlife, of the Draft RMP/EIS and Proposed RMP/Final EIS have the following objectives that are similar to the commenters suggestion: Provide habitat of sufficient quantity, quality, and connectivity to allow for stable populations of wildlife, using such metrics as the average recruitment rate or as otherwise defined by the BLM, in collaboration with the ADFG and the USFWS. ... Minimize wildlife habitat fragmentation and impacts on wildlife. Appendix G, Adaptive Management Framework explains that connectivity corridors are based on landscape features and therefore not directly influenced by most management actions. The BLM considered a range of alternatives with respect to Lands and Realty and Recreation and Visitor Service.
Spindler	Mike	The Wildlife Society	None	83	8	Range of Alternatives	103.0400.00	Appendix F should contain strong BMPs and SOPs that allow careful permitting of all BLM-managed activities in all areas of special protective designations: Connectivity Corridors, Ecological Benchmarks, ACECs, BCAs, WSRs, and LWCs. This is alluded to in Appendix Q, Subsistence (pg. Q-58), but not specified in Appendix F as applicable to all of the special protective designations: "BMPs and SOPs to protect fish and wildlife and other natural resources would help reduce long-term impacts on their habitats in the planning area. Specifically, these actions would minimize mineral development and extraction in stream and river channels, deltas, wetlands, riparian zones, active floodplains, lakes, and habitat essential to local fish and wildlife populations. This would help prevent impacts on associated fish and wildlife that are subsistence resources. BMPs and SOPs would also include measures to minimize degradation of these habitats and expedite reclamation of disturbed areas. These measures would help reduce the level of impact on wildlife habitats in areas that remain open to locatable and salable mineral development." For this statement to be achieved, I strongly recommend that BLM specifically list all mining-related protective BMPs and SOPs in a finalized Table 2-24, (pg. 2-64 to 2-66) in the RMP/FEIS, as being required (not discretionary) for all permitted activities, and then cross-referenced to Appendix F.	SOPs in **Appendix F** are not discretionary insofar as an SOP would be required by specific project conditions.
Spindler	Mike	The Wildlife Society	None	83	11	Range of Alternatives	103.0400.00	I believe it is a poorer choice for LWC lands "to emphasize other multiple uses while applying management restrictions to reduce impact on wilderness characteristics" on 4.7 million acres in Alternative B and 882,000 acres in Alternative C1 (Table 2-8, pg. 2-32). While I appreciate that the RMP/DEIS proposes a fairer range of alternatives for this type of management with 35% of lands in Alternative B and 6.6% in Alternative C1, Table 2-8 does not list actions that may be taken that would "reduce impact on wilderness characteristics" while emphasizing other multiple uses. As an example, in Alternative C1, which is supposed to be a "blend" between protection and development, only about 5% of the area would be withdrawn or recommended to be withdrawn from locatable mineral entry, the most likely source of impacts in the region (Table 3-17, pg. 3-117).	The alternatives provide tradeoffs for evaluation. It is within the decision-makers purview to select an alternative that meets the purpose and need and comports with FLPMA and other applicable laws.
Spindler	Mike	The Wildlife Society	None	83	16	Range of Alternatives	103.0400.00	I contend the RMP/DEIS does not provide a reasonable range of alternatives for percent of lands "open to locatable mineral entry" (Table 2-1, pg. 2-11). I support Alternative A, the current situation, in this aspect because about half of the lands are open to locatable mineral entry, the other half closed, which is a fair and balanced amount. In all action alternatives, the allocation of lands open to locatable minerals greatly favors mineral development over an expansive area. Even the most "protective" Alternative B opens about 82% of the planning area to locatable mineral entry (Table 2-1, pg. 2-11). In the "blend" alternatives, C1 and C2, 92% and 98%, respectively, are open. These are not true "blends." I oppose all of the action alternatives because they do not represent balanced land management -- the percentage of land open to locatable mineral entry significantly favors mineral development.	The No Action alternative is part of the range of alternatives. As such, the Draft RMP/EIS discloses the effects of a range of alternatives from 50% of the planning area available for locatable mineral entry to 98% of the planning area available for locatable mineral entry. Because of the rights inherent in the 1872 Mining Law and the BLM's multiple-use mandate, this represents a range of reasonable alternatives.
Spindler	Mike	The Wildlife Society	None	83	17	Range of Alternatives	103.0400.00	Following is a table of allocations I gleaned from the RMP/DEIS. I added a summary of my recommendations for correcting the pro-development bias to provide a more balanced range final alternative. See attached comment letter for Table 1. Changes needed in allocations for a fair range of alternatives.	Proportions do not represent a range of reasonable alternatives. Alternatives are driven by issues and constrained by sideboards in laws, regulations, policies, and planning criteria. A range from 0 - 100, for example, is not necessarily reasonable given regulatory constraints and the BLM's multiple-use mandate. The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Raskin	David	Friends of Alaska National Wildlife Refuges	None	88	16	Range of Alternatives	103.0400.00	Friends/NWRA support and urge BLM to prioritize the following Alternatives in the final RMP/DEIS: * Alt A - no PLO 5150 revocation. * Alt B - but without PLO 5150 revocation essential to resource protection. * Alt C1 - revoke PLO 5150 for only 700,000 acres of the inner corridor (a 33% revocation) but allow BLM to manage 1.4 million acres of the outer corridor as a BCA with permanent FLPMA withdrawals in critical connectivity corridors (Arctic NWR to Gates NP and Kanuti to Yukon Flats Refuges). * Alt C2 - revoke 700,000 acres (50%) of the outer corridor but allow BLM to manage the inner corridor and the remaining 50% of the outer corridor that contains critical ACEC, Benchmark, watershed, habitat connectivity, LWC, and WSR areas within the Dalton corridor that should be protected by specific FLPMA withdrawals. * Alt D revoke all 2.1 million acres of PLO 5150, both inner and outer corridors. * Friends/NWRA do not agree that the RMP/DEIS provides a reasonable range of alternatives for lands open to exploration and development for locatable minerals (Table 2- 1). Alternative A posits half of the lands be open to mineral entry. All action alternatives open an excessively large area to mineral development. Even protective Alternative B opens 82% of the planning area to mineral entry (Table 2-1, pg. 2-11). However, Alternatives C1 and C2 open 92% and 98% to mineral development, the latter opening the same 98% as development Alternative D. This is not balanced land management which would provide a range of alternatives of A = 50%; B = 50%; C1 = 75%; C2 = 85%; and D = 98%.	The No Action alternative is part of the range of alternatives. As such, the Draft RMP/EIS discloses the effects of a range of alternatives from 50% of the planning area available for locatable mineral entry to 98% of the planning area available for locatable mineral entry. Because of the rights inherent in the 1872 Mining Law and the BLM's multiple-use mandate, this represents a range of reasonable alternatives.
Kehoe	Kevin	Alaska Wild Sheep Foundation	None	96	2	Range of Alternatives	103.0400.00	Alternative B disproportionately "values" and would unnecessarily restrict "priority" habitats with the establishment and/or continuation of thirty-one ACECs and RNAs (approximately 4 million acres), "with special management to address a wide range of relevant and important values and research opportunities". Numerous watersheds would unnecessarily (and unlawfully) be restricted with the creation of 11 new Wild and Scenic Rivers (WSRs) and 363,000 acres of land would be managed for "wilderness characteristics as a priority over other resources". This alternative includes closing 4.2 million acres to fluid minerals and 1.4 million acres to locatables. This Alternative is beyond any semblance of common sense and worse yet, the draft plan fails to outline any specific changes in resources, circumstances, laws, policies or regulations that would necessitate any of these new federal area designations. While there is a section dedicated to proposed protections for Dall's sheep and caribou (Appendix I), this plan fails to outline any changes in population dynamics or needs in these areas necessitating any new designations of "habitat areas", "movement corridors" or "study areas". The presence of Dall sheep nor individual caribou herds should be the sole reason for establishment of special management areas as there are rich populations of numerous wildlife species throughout this planning area. To date, we are unaware of any needing specific attention that cannot be addressed by management authority vested in the State of Alaska. Further, considering the sole discretion to establish new WSR's and Wilderness Areas lies with Congress, this Alternative seems to be a bold indication that at least WSRs can be established by federal agencies by including such in a RMP Alternative. Regardless of the weak statement per Congressional authority noted in 2.3.2 per wilderness designations, this alternative appears to be an end-run around the "no more clause" (Section 1326) of ANILCA, and it should be eliminated from consideration because of this. While Alternative B does include a positive option in the partial revocation of PLO 5150, as a whole, it goes way beyond any hint of rational resource management planning and well exceeds the scope of this process.	Alternative B does not designate any wild and scenic rivers; only Congress can designate wild and scenic rivers. See BLM Manual 6400 for the process of considering wild and scenic rivers in the land use planning process. The BLM has followed the steps outlined in policy. The range of alternatives provide tradeoffs for evaluation. It is within the decision-makers purview to select an alternative that meets the purpose and need and comports with FLPMA and other applicable laws.
Kehoe	Kevin	Alaska Wild Sheep Foundation	None	96	3	Range of Alternatives	103.0400.00	Alternative C1 offers the same partial revocation of PLO5150, though still has many of the shortcomings found in Alternative B. Even with the establishment and/or continuation of 8 ACECs and RNAs, as well as numerous new designations of "habitat areas", "movement corridors", "study areas" and Special Recreation Management Areas (SRMAs), this alternative similarly fails to demonstrate the necessity of these areas by describing pertinent changes in resources, circumstances, laws, policies or regulations. In 2.2.3, the explanation given is "to protect relevant and important values" followed-up by a few more protection notes in Appendix J however, nowhere are there any changes noted in resource access, abundance or health necessitating any of these designations. Just to note a couple examples, continuation of the Galbraith Lake ACEC would keep 52,000 acres under designation of an ACEC just to protect "cultural resources", with no other specifics offered (Appendix J-8). Galbraith Lake happens to be adjacent to the Dalton Highway and it has a maintained airstrip. Otherwise, it's just one small area in the Brooks Range relatively indistinguishable from vast acreage in every direction. Then there's a recommendation to add 4,000 acres in the remote Alatna River drainage as a new ACEC to "protect crucial whitefish and sheefish spawning habitat" yet this area is extremely remote and the designation seems completely unnecessary. While we appreciate the special attention to Caprinae species in this alternative, the land use restrictions suggested (Appendix I.1) to protect Dall's sheep are unnecessary and ill-advised. This plan covers a very small portion of the greater Brooks Range Dall's sheep population. Given the large home ranges of Dall's sheep, the recommended restrictions imposed just within this RMP would have minimal effect on the population as a whole.	The range of alternatives provide tradeoffs for evaluation. It is within the decision-makers purview to select an alternative that meets the purpose and need and comports with FLPMA and other applicable laws.
Williams	Frank	No organization name	None	101	3	Range of Alternatives	103.0400.00	Proposed management of the Utility Corridor as stated in section 2.3.3 of the draft plan, "…none of the alternatives would manage these lands to protecting or maintaining wilderness characteristics," should be rethought and weighed significantly differently because protecting and maintaining wilderness characteristics preserve existing resources that benefit people living in the Utility Corridor and especially people who visit the Utility Corridor.	As noted by the heading of Section 2.3, Alternatives Eliminated from Detailed Analysis, managing lands that overlap PLO 5150 to protect or maintain wilderness characteristics was considered and is part of the range of alternatives. However, the purpose of PLO 5150 is specifically to reserve the lands as a utility and transportation corridor, which is inconsistent with protecting wilderness characteristics.
Costello	Naomi	Evansville Tribal Council	None	107	29	Range of Alternatives	103.0400.00	BLM should mandate that all activity avoid trespass on Native allotments.	The BLM does not authorize trespass onto Native allotments or other nonfederal land. Such an issue is not a plan-level decision and should be dealt with through proper channels.
Sommer-Pedebone	Dena	Gana-A'Yoo, Limited	None	122	1	Range of Alternatives	103.0400.00	Consistent with Alternatives C2 and D, Gana-A'Yoo maintains that the final RMP should not designate any ROW exclusion areas other than as may be required for management of the 259,000 acres for the Central Arctic Management Area (CAMA) Wilderness Study Area (WSA). Designating areas where ROWs would be prohibited unless subsequently authorized by a plan amendment is unnecessary and inappropriate given the substantial Native and State inholdings in the Planning Area, the serious implications for development and land use by Alaska Natives and other private landowners and local communities surrounded by public lands, and the importance of retaining management flexibility over the long life of the RMP. For these reasons, Gana-A'Yoo also urges BLM not to include ROW avoidance areas in the final RMP.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail.
Mayo	Gail	Arctic Audubon Society	None	124	1	Range of Alternatives	103.0400.00	We could support Alternative B with modifications that would retain all proposed ACEC's and RNAs as well - as D-1 withdrawals. We are particularly concerned with the lands in the outer Dalton Highway corridor. We believe that no lands should be removed from BLM oversight of the pipeline utility corridor. Federal oversight should continue until (1.) all pipeline corridor proposals have been considered, for example the latest LNG proposal, and (2.) those pipelines have reached the end of their usefulness and been restored. The management of the pipeline corridor is a major issue because the (1) increase in all use areas, -recreational hiking and tourism, hunting subsistence hunting and gathering, commercial trucking, mineral exploration, etc., and (2) Turning these lands over to state, tribal or private control will negate the coordinated management necessary to retain their ecological integrity. We believe that BLM is the best agency to ensure the future viability of these lands.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. Alternative A considered retention of all D-1 withdrawals and Alternative B considered designation of all ACECs. Unlike the action alternatives from the Draft RMP/EIS, Alternative E would not propose any recommendation to revoke PLO 5150. As such, it would remain in place as under Alternative A. Alternative E would include the recommendation to partially revoke 11,151,000 acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans where the PLOs currently do not allow for it.

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Rohrer	Trenton	No organization name	None	132	1	Range of Alternatives	103.0400.00	Establish a more balanced approach to land management that better represents the interests of hunters, anglers and outdoor adventure seekers and is more aligned with the BLM's responsibility of habitat management on federal land. The Preferred Alternative C2 is heavily weighted in favor of natural resource extraction. It would open a total of 13,083,000 acres - the entire area for which the federal government holds the mineral estate and 98% of BLM surface managed lands - of public land in the planning area for locatable mineral entry as opposed to the current plan with 6,773,000 acres open. Furthermore, the Preferred Alternative would eliminate all ACECs and RNAs with the exception of the Toolik Lake ACEC. This reduces the total acreage of ACECs and RNAs from 1,751,000 acres to 77,000. Alternative B, the resource protection plan, seeks to have open a total of 10,879,000 acres to locatable mineral entry a significant increase from the current plan while simultaneously increasing total acreage of ACECs and RNAs to 4,035,000 acres. The final plan should incorporate more of the existing options for resource protection to create a true blend of protection and development interests.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS.
Berendzen	Steve	U.S. Fish and Wildlife Service	Arctic National Wildlife Refuge	134	4	Range of Alternatives	103.0400.00	In Appendix C: Land Tenure, the CYRMP states "In preparation for this land use planning initiative, the Bureau of Land Management (BLM) conducted an inventory of the public land in the planning area to determine whether there are any tracts that meet one or more of the Federal Land Policy Management Act (FLPMA) Section 203 disposal criteria, Section 206 exchange criteria, or Alaska-specific exchanges under the Alaska National Interest Lands Conservation Act (ANILCA) or Alaska Native Claims Settlement Act (ANCSA). This is because the BLM may only sell public land using the Section 203 FLPMA authority, if lands meet the criteria. The lands that meet the criteria to be retained, acquired, exchanged, or disposed of are identified as Zone 1, 2, or 3." Appendix C: also states that Land Disposal is only considered under Alternative B (although Map 2.27 identifies both Alts B and C1). The Refuge questions why the land disposal topic was only considered under Alternative B and not under the other alternatives? Further, the Refuge has concerns regarding particular parcels of land designated for disposal on Map 2.27. These parcels directly border the Arctic NWR. The parcels of interest are located west of the Middle Fork of the Chandalar River and are generally of larger size than most of the other parcels identified for disposal. The Arctic Refuge is concerned about the uncertainties and unpredictable impacts that potential disposal of these lands to another agency or private entity may result from this Alternative. Additionally, on Appendix C, Page C-1, the list of Exchange or Disposal criteria includes bullet item number 4 " A tract that, because of its location or other characteristics, is difficult or uneconomic to manage and is not suitable for management by another federal agency. The Arctic NWR recommends that clue to the location adjacent to existing Refuge lands, the specific parcel is best managed under federal jurisdiction by BLM, but if this is not an option it should be considered for transfer to another federal agency (USFWS).	Land disposal is considered in all alternatives. Alternatives B and E would allow for disposal through FLPMA Section 203 sales. The other alternatives would allow for disposal through FLPMA Section 206 exchange only. The disposal alternative map was corrected to only have parcels listed in **Appendix C** and to have a legend that separated exchange versus disposal.
Richards	Frank	Alaska Gasline Development Corporation	None	138	3	Range of Alternatives	103.0400.00	ROW Exclusion and Avoidance Areas - Implementation of ROW exclusion and avoidance areas as noted in Alternatives B and C1 would directly impact the already-approved Alaska LNG Project footprint. Issue: a. Alternative B would make 617.81 acres of the Alaska LNG Project footprint a ROW-exclusion area and 2,683.55 acres a ROW-avoidance area, for a total of 3,301 acres of the Alaska LNG Project footprint directly impacted. b. Alternative C1 would make 873.30 acres of the current Alaska LNG Project footprint a ROW-avoidance area. Resolution: AGDC requests BLM not designate any areas for ROW exclusion or avoidance. Current federal regulations and requirements, including BLM ROW grant requirements, already allow full consideration and control of any potential impacts when ROW applications are filed. If BLM does decide to implement additional ROW exclusion or avoidance areas, AGDC requests BLM make it clear ROW locations and associated temporary workspaces, access roads, material sites, pipe storage yards, and other ancillary facilities for the Alaska LNG Project are exempt from any ROW exclusion or avoidance areas.	Any ROW avoidance or exclusion areas, or any allocations, would not apply to existing infrastructure or authorizations.
Richards	Frank	Alaska Gasline Development Corporation	None	138	6	Range of Alternatives	103.0400.00	Stipulations in Appendix F are Extensive and Overlap with Existing ROW Stipulations and Legal Requirements/Permits - Additional stipulations defined in Appendix F are extensive and broadly applicable. Issue: a. The additional stipulations in Appendix F have potential to negatively impact construction, access, and operations of the Alaska LNG Project, and impose restrictions beyond those included in the Project's EIS or in current ROW, permit stipulations, and regulations. Resolution: AGDC requests BLM clarify in the Final Plan that stipulations do not apply directly to the Alaska LNG Project when they have requirements beyond those defined in the Project's EIS, ROD, current ROW grant or other existing permit stipulations and regulations.	Stipulations in Appendix F only apply to oil and gas leases, as explained in Section F.3.1 of **Appendix F** of the Draft RMP/EIS. If the commenter is referencing the SOPs, any requirements would only be applied to new ROW authorizations and not to existing authorizations.
Cole	Jeanie	Alaskans for Wildlife	None	142	5	Range of Alternatives	103.0400.00	PLOs issued under section 17(d)(1) of the Alaska Native Claims Settlement Act (ANCSA) withdraw 4,670,000 acres of the planning area from locatable mineral entry. The action alternatives recommend revocation of all or parts of these withdrawals. Alternatives B and C1 recommend 1,461,000 acres and 156,000 acres of new withdrawals from locatable mineral entry respectively, but BLM would not pursue new withdrawals on validly selected lands or remaining BLM-managed lands until full conveyance of selected lands. While our strong preference is for the BLM to retain as many of the ANCSA withdrawals from metalliferous minerals as possible, we recognize the BLM's desire to clean up these old withdrawals and clarify the land records. We recommend that language be added to the RMP to specify that ANCSA withdrawals would be retained in areas where new withdrawals are proposed until such time as the new withdrawals can be put into place. This would prevent new mining claims from being filed in areas designated for protection from land disturbing activities in the interim between withdrawal revocation and issuance of a new withdrawal by Congress. Or perhaps add language that the BLM would segregate the recommended withdrawal lands immediately upon conveyance. We believe that there are mechanisms by which BLM can temporarily segregate land from mineral entry while considering a withdrawal. Also new withdrawals should include selected lands as the withdrawal would only address locatable minerals, not disposal. Although selected lands are segregated by the land selections, the State could drop their selections at any time opening the lands to new mining claims. If the lands are conveyed to the State, then the withdrawal would automatically become moot. We also ask that new withdrawals not be delayed until full conveyance of selected lands.	The BLM Land Use Planning Handbook 1601 gives the BLM the power to recommend to the Secretary of the Interior withdrawals from locatable mineral entry. The BLM does not have the authority to segregate minerals.
Gestring	Bonnie	Earthworks	None	146	1	Range of Alternatives	103.0400.00	To provide a more balanced approach, as required by BLM policy, we urge the BLM to select a modified Alternative B, which incorporates the management actions proposed in Alternative B, in addition to the following changes: 1) Retain the Public Land Order (5150) in its entirety for the Dalton Highway corridor (Alternative A). 2) Maintain all existing ANCSA (d)(1) withdrawals, particularly those that overlap with ACECs and RNAs and important connectivity areas (as described in Appendix G). If a determination is made to lift an ANCSA (d)(1) withdrawal, ensure that a FLPMA withdrawal is in place prior to revoking the ANCSA (d)(1) withdrawal. 3) Recommend locatable mineral withdrawals for all ACECs and RNAs that aren't covered by existing ANCSA (d)(1) withdrawals. 4) Reconsider original ACEC nominations and incorporate traditional ecological knowledge (TEK) in the review of all ACEC nominations. 5) Significantly increase the amount of ROW exclusions to protect habitat connectivity in key connectivity areas outlined in Appendix G. Incorporate a Right of Way (ROW) exclusion area for the Jim River ACEC. 6) Adopt the newly designated Core Caribou Habitat (746,000 acres) proposed in Alternative C1. Establish core caribou habitat for the Hodzana Herd. Include additional safeguards for caribou, such as restrictions on OHV use and other surface-disturbing activities during calving periods. 7) Adopt the newly designated Dall Sheep Habitat Areas, Dall Sheep Movement Corridors, and Dall Sheep Study Area (538,900 acres combined) proposed in Alternative C1. Modify these areas to provide additional safeguards for Dall sheep, such as restrictions on development activities within 0.5 miles of mineral licks. 8) Establish core caribou range for the northern caribou herds, namely the Western Arctic Caribou Herd (WACH) but also the Central Arctic and Porcupine Herds. The final plan must take a more protective management approach that safeguards other important land uses, such as maintaining fish and wildlife habitat, planning for ecological connectivity corridors, combating climate change and protection of subsistence resources and uses.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from recommending revocation, a partial revocation, to maintaining PLO and ANCSA withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150 or any other PLOs.

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Gestring	Bonnie	Earthworks	None	146	7	Range of Alternatives	103.0400.00	Although the preferred Alternative (C-2) represents the most extreme option, every alternative in the DEIS (B, C1, C2, and D) significantly favors resource development over protection. For example, all of the action alternatives B, C1, C2 and D propose lifting the entirety of PLO 5150 in the outer Dalton Highway corridor. Similarly, the range of alternatives for ROW exclusions is heavily tilted towards development (Alt B = 17.6%; Alts C1, C2 and D = 2%) The range of alternatives for ACEC protections is also inadequate (B=30%; C1=3%; C2=0.6%; D=0%). The following table shows the allocation assigned to the various development activities in comparison to LWC as a percentage of the decision area (acres) by action alternative. Lands with wilderness characteristics are considered an irretrievable resource, yet comprise from 0 to 3% of the total 12.7 million acres of lands recognized as having wilderness characteristics. We urge the BLM reevaluate its limited allocation scope for LWC. (See attached comment letter for Alternatives Table). The DEIS fails to recognize the importance of maintaining quality wildlife habitat, connectivity, watershed integrity, and subsistence uses in its range of alternatives. We urge the BLM to take a more balanced approach that provides a range of alternatives that include a higher level of resource protection.	Proportions do not represent a range of reasonable alternatives. Alternatives are driven by issues and constrained by sideboards in laws, regulations, policies, and planning criteria. A range from 0 - 100, for example, is not necessarily reasonable given regulatory constraints and the BLM's multiple-use mandate. The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.
Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Northern Unit of Innoko National Wildlife Refuges	150	12	Range of Alternatives	103.0400.00	Alternative C2 does not recognize and manage the Areas of Critical Environmental Concern (ACECs) identified in the plan. These ACECs accurately identify critical areas of high soil, water, fish/riparian, wildlife, vegetation or other value that directly influence the ecological integrity of the Koyukuk, Nowitna, and Innoko NWRs. Recognition and management of ACECs is preferred because these areas are critical to ecosystem integrity in the region surrounding Koyukuk, Nowitna, and Innoko NWRs. By protecting critical habitat identified in BLM lands adjacent to the Refuges, ACECs support the mission, objectives and plans of the Refuges. Lack of recognition or protection of these critical resources constitutes a failure to consider plans and policies of adjacent conservation system units. * Alternative C2 fails to protect sensitive lands and high-value watersheds in areas adjacent to Koyukuk, Nowitna, and Innoko NWRs through appropriate withdrawals/limits on: o fluid mineral leasing and development o mineral leasing and development o nonenergy solid mineral leasing and development o solid leasable mineral extraction o locatable mineral entry o mineral materials disposal o right of ways (ROW) o off-highway vehicle (OHV) use o timber harvest These activities have the potential to negatively impact water quality and quantity, essential fish habitat, and wildlife habitat and populations on Refuges. * Alternative C2 fails to consider impacts to federally recognized Wild and Scenic Rivers on adjacent lands (e.g. Nowitna Wild River). * Suitable Wild and Scenic River (WSR) segments are not recognized or managed in Alternative C2. Management of suitable WSR segments protects floodplains of high-value watersheds, and contributes to river system/basin integrity and regional protection objectives for fish and wildlife resources, and provides management consistency across agencies for the management of the Nowitna Wild River (Nowitna NWR). A number of these waterways provide important spawning areas for fish of the Koyukuk and Nowitna NWRs, including anadromous species. The Sulukna River and Sethkokna Rivers feed into the Nowitna Wild River. Mineral development and other activities in these tributaries pose risks to Outstandingly Remarkable Values (ORVs) identified for this federally designated Wild River. * Alternative C2 fails to adequately protect critical wildlife habitat in areas adjacent to Koyukuk, Nowinta, and Innoko NWRs including core calving areas of the Galena Mountain Caribou Herd. Under Alternative C2 these core calving areas are threatened by the failure to recognize ACECs, failure to restrict OHV use, ROW, and aircraft use, and through revocation of PLOs. * Alternative C2 does not adequately address: o protection of thaw-sensitive soils and minimization of permafrost o protection of air quality o limits to effects on climate change o reducing potential detrimental direct or indirect impacts on cultural resources o management of special status species (SSS) flora and unique ecosystems o preservation of wilderness character (e.g. lands with wilderness characteristics (LWCs) would be managed to emphasize other multiple uses as a priority over protecting wilderness characteristics.)	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS.
Magee	Susan	State Of Alaska	None	165	27	Range of Alternatives	103.0400.00	ROW Avoidance and Exclusion Area Designations * Issues: o ROW exclusion and avoidance area designations are inappropriate on public lands in Alaska because they interfere with opportunities to develop roads and infrastructure in a remote planning area that includes a Utility Corridor and access needs to and between remote communities. o ROW exclusion and avoidance areas between CSUs frustrates Congress' finding and intent in ANILCA Section 1101 to establish the Title XI process. o No analysis of potential social, economic, or access impacts these restrictions could cause across the planning area is included. o No consideration of impacts to State asserted RS 2477 ROWs or associated public use. * Resolution: o Do not apply ROW exclusion areas in the planning area. o Apply ROW avoidance areas judiciously and provide sound reasoning; consider impacts holistically and in association with adjoining land ownerships by clarifying that impacts to fish and wildlife and their habitats will be considered on adjacent State and private lands to ensure the least important habitat is selected for the ROW among the ownerships present. o Include analyses of potential negative impacts ROW restrictions to local residents, industry, and the State. * Discussion We support the intent in the Lands and Realty Table (2-19, page 2-49) that recognizes the need for ROWs throughout the planning area, and particularly in the Utility Corridor. However, in contrast to that management intent, the ROW exclusion and avoidance designations comprise most of the BLM lands adjacent to the Dalton Highway and are two of the most commonly used blanket restrictions associated with ACECs. ROW exclusion and avoidance areas are also prescribed for the following additional resources, many of which have not been identified in the field -- sensitive soils, floodplains, hot springs, lentic areas, back country areas, WSR segments and areas with alpine vegetation. In the draft RMP/EIS, all but five of the ACECs in Alternative B propose either ROW exclusion or avoidance areas as a special management action to protect resources labeled as "relevant and important," yet the resources are not identified in more than generalities. This management action is proposed for ACECs that are often made up of hundreds of thousands of acres, in a remote, primarily roadless (except for the area around the Dalton Highway Corridor) planning area that has fewer than 100 communities. There is also no consideration of these proposed designations on existing State-owned RS 2477 ROWs, including the State's legal interests and existing public uses (see also RS 2477 comment below -Subsection IV, Issue #1). We request BLM avoid the designation of ROW exclusion or avoidance areas in the CYRMP as depicted in Maps 2.36-2.38. Alaska is a relatively young state with limited infrastructure and a resource-based economy, which Congress explicitly recognized in ANILCA Section 1101 when it established the Title XI transportation and utility system (TUS) process. Designating ROW exclusion and avoidance areas establishes the same scenario that Congress rejected when it determined the State could not predetermine its future access needs.19 19 "Therefore, the committee believes that Alaska National Interest Lands legislation cannot designate at this time the routes of transportation corridors. The location, timing, type and magnitude of resource development is unknown, market designations for the produced resources are unknown, and due to the forces of technological change, both the product form and appropriate transport mode cannot be anticipated with any degree of certainty. These same unknowns suggest as well, that it would be fruitless to attempt to draw boundaries of conservation systems units to leave open transportation corridors. The prime motivating factor for a consolidated process of transportation for Alaska's conservation unit was the uncertainty with which transportation needs can be determined. Alaska has few roads and no statewide transportation network. Presently, the bulk of Alaska, particularly where the majority of the areas established by the committee are located, is accessible only by air or water. Future surface transportation needs cannot be addressed by the designation of a system of corridors. Instead, the committee	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS. The designation of ROW exclusion areas would allow for the continued use of valid existing rights, including recognized RS 2477 ROWs, within the ROW exclusion areas.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Magee	Susan	State Of Alaska	None	165	47	Range of Alternatives	103.0400.00	Travel Restrictions Despite our objections in previous cooperator review comments, OHV restrictions remain included as blanket limitations. Most of the OHV restrictions in the plan are located in ACECs within the Dalton Highway Corridor where OHV restrictions already exist or in remote areas where access is self-regulated due to relative inaccessibility. The additional layered limitations in the Utility Corridor, where State statutes and hunting regulations already limit the use of motorized vehicles, are redundant and only serve to create additional confusion in the area for the public, rather than provide for resource protection. BLM provides little to no justification for these proposed management actions and in Appendix M, "Approach and Summary to the Environmental Analysis" (page M-25) states that …. (OHV) use [is] not anticipated to occur at a large scale in the planning area and will not be included in the analysis. We request the impact analysis in the proposed final RMP/DEIS compare the status quo with the proposed restrictions so as not to overstate the impacts of the proposed restrictions. The primary OHV users in the planning area are subsistence users. ANILCA authorizes access for subsistence activities (i.e., ANILCA Section 811 Access) on all federal public land (not limited to CSUs), so it applies to both BLM general lands and designated management areas, such as ACECs. It is important to recognize that, while allowed in CSUs under ANILCA Section 811, subsistence use of OHV's is generally not recognized by managers of CSUS as a method of access "traditionally employed" and is therefore generally not an allowed use on federal lands within nearby CSUs (e.g., Gates of the Artic National Park and Preserve, and Kanuti and Arctic National Wildlife Refuges). BLM multiple use lands are therefore, primarily, the only federal lands in the planning area where subsistence users can use OHVs. As noted in the RMP's ANILCA access discussion in the Travel Management Table (Table 2-20), restrictions on ANILCA protected access cannot be imposed and are not enforceable until they are evaluated through a subsequent public process. The draft plan indicates seasonal limitations apply to airplane landings authorized under BLM permit (with an exception for emergency or scientific purposes) under Alternative A in the Nugget Creek, Poss Mountain, Snowden Mountain and West Fork Atigun ACECs. (Table 2-21, page 2-59). Under Alternative B, C1 and C2 (and they vary between sections of the draft RMP) aircraft landings authorized under BLM permit are restricted on 1,856,000 acres (14 percent of the planning area) within the Galena Mountains, Jim River, Tozitna, Sulukna, and Kanuti River ACECs (per Table 2-21 page 2-59, Appendix J, pages J-11, -14, 16 and Appendix Q, page Q-59, -60, -81). ANILCA Section 1110(a) protects the public's use of aircraft for traditional activities (e.g., hunting and fishing) within CSUs, including designated Wilderness, Wilderness Study Areas, and Wild and Scenic Rivers, and it is often the only feasible means of access in areas without roads or trails. The same need holds true for the majority of multiple-use lands managed by BLM in the planning area. To restrict this important method of access on almost 2 million acres of BLM non-CSU lands when it is allowed by statute (subject to reasonable regulation) within CSUs for the public is illogical and contrary to the intent in ANILCA. Based on the limited use of the planning area for aircraft landings and lack of need for restrictions evidenced by data in the draft RMP/EIS, we oppose restrictions on aircraft landings. We request BLM consult with ADF&G staff regarding the perceived need for proposed restrictions in fish and wildlife ACECs.	The BLM analyzed a range of alternatives with respect to travel management. Alternative E has seasonal limitations of OHV use (closed in summer) for only naturally occurring asbestos sites, Toolik Lake, and not all Proposed Plan ACECs.
Magee	Susan	State Of Alaska	None	165	50	Range of Alternatives	103.0400.00	Extensive Recreation Management Areas (ERMA) * Issue: o Two ERMAs identified in the draft RMP/EIS, the Spooky Valley ERMA and the Nigu-Iteriak River ERMA are proposed as Primitive under Alternative B and C1 and both alternatives would prohibit aircraft landings, eliminating one of the primary modes of access into these remote areas for recreational use. o Restrictions on use are not described in the Alternatives Tables and instead relegated to in an appendix (Appendix K) making it cumbersome for the public to understand how they could be affected by the proposed designations and associated restrictions. o Access restrictions make these areas less accessible than CSUs located in the planning area. o Little information is provided in the draft RMP outlining BLM planning area investments or management issues triggering the need for an ERMA given ERMAs are designated to manage existing recreation use, demand, or Recreation and Visitor Services program investments and are managed to sustain principal recreation activities and associated qualities and conditions. * Resolution: o As the draft RMP/EIS does not identify resource management problems caused by aircraft landings we request the following edits to remove restrictions on aircraft landings: -Page K-18, Spooky Valley ERMA, Other Programs-Designate for seasonal, non-motorized use. Access into the ERMA would be by foot or aircraft, in winter, snowmobile. -Page K-18, Nigu-Iteriak River ERMA, Other Programs-Designate for seasonal, non-motorized use. Access into the ERMA would be by foot or aircraft, in winter, snowmobile. o We recommend removing existing ERMA designations in the planning area and avoiding any new ERMA designations, unless additional detail can be provided documenting the need for the designation. o Manage all aircraft use consistent with allowances for CSU's per ANILCA Section 1110(a) and 811 throughout the planning area. * Discussion: ANILCA Section 1110(a) specifically protects the public's use of aircraft in CSUs. This is often the only feasible means of access in areas without roads or trails, such as the Spooky Valley ERMA and the Nigu-Iteriak River ERMA/Wilderness Study Area. The Nigu-Iteriak ERMA shares a boundary with the CAMA, which was designated as a WSA in Sec. 1004(c) of ANILCA. ANILCA amends the Wilderness Act to allow the use of aircraft in Congressionally designated Wilderness and WSAs. It is inappropriate for the DEIS to propose managing administratively designated areas, Spooky Valley ERMA, or WSAs more restrictively than Congressionally designated Wilderness in Alaska. In particular, use of aircraft in the WSA for traditional activities, such as hunting or outfitting and guiding, cannot be prohibited unless "after notice and hearing in the affected area, it is determined to be detrimental to the resource values of the unit or area" (ANILCA Section 1110(a)). (see also the ANILCA provisions referenced in Travel Management Table 2-20). Resource management issues caused by aircraft landings should be evaluated on a case-by-case basis. Any subsequent restrictions should be limited to the minimum portion of the area necessary to discretely, yet adequately, address the problem. Restrictions are only appropriate during time periods when an issue exists, e.g., during a specific season, if applicable. However, neither of these areas receives high use at any time of the year and therefore do not warrant the proposed seasonal restrictions. In addition, there are multiple layers of conflicting actions related to aircraft use in the draft plan, making the management indecipherable. The proposed aircraft closures for these two ERMAs is not consistent with management in other parts of the draft RMP/EIS. For example, Table K.1.3 "Operational Component-Conditions Created by Management over Recreation Use" (page K-5) allows aircraft landings for both primitive and semi-primitive classification: "aircraft activity permissible through Alaska National Interest Lands Conservation Act 1110(a) and 811" (Page K-5).	BLM would only limit BLM authorized aircraft activities. BLM would not limit general aircraft landings. A primitive recreation settings does not limit casual uses as applied to aircraft.

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Magee	Susan	State Of Alaska	None	165	51	Range of Alternatives	103.0400.00	Backcountry Conservation Areas (BCAs) * Issue: o BCA in Alternative B of the draft RMP/EIS does not accurately consider the on-the-ground reality in the data presented. This results in a conflict between what the on-the-ground environment is and what the draft RMP/EIS indicates the BCAs will be. o Similar to SRMAs, proposed management is not found in the Alternatives Table (2-7) but instead described in an appendix (Appendix K), making it cumbersome for the public to assess how the proposed designations and associated management would affect them. * Resolution: If carried forward into the final plan, defer management decisions to a recreation management step-down plan for this area to better analyze designating the Dalton Highway Corridor BCA. * Discussion: The Dalton Highway BCA is incorrectly described as "being 5 miles from either mechanized, motorized routes or established landing fields" (Draft RMP/EIS, Appendix K, Page K-36). There are many areas of the BCA directly adjacent to airfields and routes open to mechanized or motorized travel. For example, the BCA north of Sukakpak Region SRMA contains the Chandalar Shelf airfield, oil pipeline infrastructure and access roads, is a mile east of Galbraith Lake airfield, and directly adjacent to the Dalton Highway. Also, the BCA north of Sukakpak Region SRMA is treeless so most land uses are visible from the Dalton Highway unless hidden by topography. The on-the-ground situation conflicts with the discussions in the Remoteness and Naturalness section K.8.4, which state "Any new land uses would have a low level of contrast with the landscape and would not be visually obvious from the Dalton Highway" (Draft RMP/EIS, Appendix K, Page K-36). The clear lines of sight from the Dalton Highway make the desired conditions described in the draft RMP/EIS difficult to achieve and inappropriate next to developed infrastructure. The BCA in the vicinity of the Central Dalton SRMA and Coldfoot RMZ is transited by the Nolan Road and Hammond River Road open to highway vehicle traffic and mechanized travel. Numerous mining access trails are also located in the BCA in the vicinity of Slate Creek (Myrtle Creek airstrip), Marion Creek, and Gold Creek. These mining access trails are open to heavy equipment travel by permit as well as OHV and mechanized travel. Airstrips in this portion of the BCA include Myrtle Creek airstrip and two airstrips in the vicinity of Gold Creek associated with trailheads. One of which is on the north side of Gold Creek and the other on the south side. The BCA's classification in the vicinity of the Jim River conflicts with the Bettles winter road, which is seasonally open to highway vehicles and with mining trails west of Chapman Lake. The distances from landing fields, motorized, and mechanized routes we have noted in the Dalton Highway BCA, and adjacent, are more accurately associated with backcountry and frontcountry classification, not primitive or semi-primitive classification. The primitive/semi-primitive classification can unnecessarily limit hunter, fisher, and trapping access which conflicts with the goals in the planning area to enhance opportunity for hunting, angling, and recreating and should be removed from all alternatives.	BLM would only limit BLM authorized aircraft activities. BLM would not limit general aircraft landings. A primitive recreation settings does not limit casual uses as applied to aircraft.
Magee	Susan	State Of Alaska	None	165	54	Range of Alternatives	103.0400.00	Travel Management ~~Issues: o Limits casual (recreation) and subsistence OHV use under the guise that limits protect resources without use data and~~ other relevant information needed to assess impacts to use and access. o General OHV closures during August and September are problematic for hunter access. o Fails to allow for off-trail game retrieval when OHV use is limited to existing trails. * Resolution: o Defer all travel management decisions to step-down plan when route inventory and necessary data is available to inform public. o Remove all seasonal OHV closures during August and September (hunting season). o Provide access consistent with the State of Alaska GAU's, as well as the conditions for GAU's found in 11 AAC 96.025, including allowance for off-trail game retrieval for subsistence and casual use. * Discussion: We share BLM's desire to reduce, prevent, and mitigate impacts from OHV use in sensitive areas such as wetlands, stream crossings, and important wildlife habitat. The State's Yukon Tanana and North Slope Area Plans address both the State's desire that the public have access to public lands for the responsible use and enjoyment of fish and wildlife habitat, as well as reducing, preventing, and mitigating impacts to sensitive public lands. Instead of the generalized discussions of typical OHV damage currently in the CYRMP, BLM should instead identify actual impacts that are occurring to vegetation, fish, or wildlife from OHV activity in the planning area, the locations damage has occurred, and the site-specific benefits that will be realized by restricting OHV use to justify access restrictions. The information needed for this type of analysis is typically found in a step-down travel management plan instead of an RMP. Table 2-20 (page 2-56) and Maps 2-45 to 2-53 indicate travel management restrictions would be implementation level decisions and would be finalized under a step-down plan, yet Table 2-21 indicates that seasonal closures will occur under interim management. Otherwise, management would be consistent with Alternative A. The amount of public lands the draft RMP/EIS proposes for seasonal OHV restrictions under Alternative B (3,235,000 acres total) will limit the public's use and enjoyment of fish and wildlife resources by eliminating seasonal access to state-owned and state-selected lands and waters as well as federal public lands in a remote and roadless planning area where access is self-limiting and use is low. In these areas, without location specific identified resource damage or impacts, we support continuing management of the planning area under the Limited designation currently in place under Alternative A. The primary users of the planning area are local residents conducting subsistence activities by access methods allowed under ANILCA Section 811. In addition, off-trail game retrieval is not addressed in the draft RMP/EIS. This important use needs to be allowed in the proposed final RMP. Prohibiting off-trail use in the planning area (except for the Dalton Highway Corridor Management Area where other restrictions apply) would unnecessarily restrict game retrieval. Aligning uses on BLM trails with the State's GAUs, which allow for off-trail use for game retrieval, would provide needed consistency for hunters, anglers, and trappers recreating and gathering subsistence resources across public lands and better align the planning effort with state policies and plans. All travel management planning should be deferred to a step-down plan, which should not be initiated until BLM's current route inventory (including RS 2477s) and any trail issues and use can be analyzed in more detail. Without this information, the public is not able to assess the impacts proposed restrictions will have on existing routes and uses. In addition, we encourage BLM to include the following management prescription that applies to trail use in State area plans: "waterway crossings should be carried out at 90° angle." Where BLM proposes to restrict OHV use due to fish and wildlife concerns, we request that consultation with the State, including the appropriate area biologist at ADF&G, occur prior to proposing restrictions. Where state navigable waters are concerned, the plan cannot apply restrictions and must defer to the State's management authority (see State Navigable Waters	The BLM analyzed a range of alternatives with respect to travel management. The BLM Land Use Planning Hanbok 1601-1, requires that OHV area designations be analyzed in the RMP. Alternative E has seasonal limitations of OHV use (closed in summer) for only naturally occurring asbestos sites and not ACECs.
Cambell	Bruce	No organization name	None	174	1	Range of Alternatives	103.0400.00	Some alternatives that should be offered in the new EIS include protecting all lands and waters with wild characteristics and recommending numerous river segments as Wild and Scenic Rivers due to their "outstandingly remarkable ecological values". Another alternative could be to protect about 30% of these lands under the next RMP, though 30 x 30 by 2030 is meant to be a step toward 50 x 50 by 2050, so think big in protection, please. And since it is my understanding that 96% of BLM lands/waters within the Planning Area have wild characteristics (plus eligible Wild & Scenic River segments) - protecting that 96% and explaining how D-1 lands fit in to the greater protected public lands picture could be another alternative. But recommending protecting just 3% of these special areas exhibits extremely little consideration for natural resources, wildlife, as well as native and other communities.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS.
Cambell	Bruce	No organization name	None	174	7	Range of Alternatives	103.0400.00	As far as the Dalton Hwy. corridor, it would be good to allow for good wildlife flow preferably on both sides of the Dalton highway in a north-south direction so they do not become road kill on the highway itself. Please manage appropriately to achieve such objective. BLM is capable of managing for both essential utility routes as well as protection of some nearby areas for wildlife corridors.	Wildlife crossing is implementation-level issue.
Heart	Lee	Alaska Outdoor Alliance	None	188	2	Range of Alternatives	103.0400.00	We request a proposed RMP that is meaningfully modified from the preferred alternative (C2) in the draft. In lieu of the agency's preferred alternative, we support Alternative B with some modifications. This approach emphasizes the conservation of resource values while supporting backcountry recreation, rural subsistence, and moderate levels of resource use. Specific priorities include: * Most of the components of Alternative B, including the adoption of the Dalton Corridor Backcountry Conservation Area * The retention of the ANCSA d-1 and PLO 5150 withdrawals in Alternative A, which are important for maintaining the connectivity of federal lands for recreation * The retention of the Central Arctic Management Area (CAMA) and Nigu-Iteriak ERMAs in Alternative A, which collectively designate 421,000 more acres to be managed to address recreational use than in the combined ERMA (Nigu-Iteriak River-CAMA) in Alternative B	The difference between Alternatives A and B with respect to the Nigu-Iteriak and CAMA ERMAs is that the ERMA terminology when the previous plan was written had a different meaning from the ERMAs as they are currently defined in BLM Handbook H-8320-1. Specifically, at the time the old plan was written, any area not designated as a SRMA was by default an ERMA. Per the new BLM Handbook, the BLM can establish SRMAs, ERMAs, and other areas not designated as a recreation management area. Similar types of recreational activities can occur and will occur in the area of the Nigu-Iteriak and CAMA ERMAs under Alternative B, or any of the other action alternatives, as under Alternative A.

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Lavin	Pat	Defenders Of Wildlife	None	193	5	Range of Alternatives	103.0400.00	These withdrawals total almost 7.5 million acres and in many cases contain valuable resources for which retention of the withdrawal may well be the preferable management alternative. Yet BLM treats revocation as a given and fails to analyze alternatives that fully or partially retain these withdrawals. Because of the significant acreage and high resource values implicated by retaining or revoking the withdrawals, BLM must consider a full range of options, from full revocations to full or partial retentions of all withdrawals, and the benefits and considerations involved in making those decisions. Additionally, all action alternatives dramatically increase the total acreage available for mining; the agency should analyze an action alternative that takes a more conservative approach.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS. The No Action alternative is part of the range of alternatives. As such, the Draft RMP/EIS discloses the effects of a range of alternatives from 50% of the planning area available for locatable mineral entry to 98% of the planning area available for locatable mineral entry. Because of the rights inherent in the 1872 Mining Law and the BLM's multiple-use mandate, this represents a range of reasonable alternatives. The effects of each of the alternatives are disclosed in Chapter 3.
Lavin	Pat	Defenders Of Wildlife	None	193	9	Range of Alternatives	103.0400.00	According to the DEIS, "Withdrawal of lands from locatable mineral entry likely provides the single most meaningful protection for fish and aquatic species and their habitats…Mining would likely result in additional sedimentation into waterbodies, which impacts fish and aquatic species through changes in water quality parameters.13Moreover, under the preferred alternative, "no lands would be withdrawn from leasing and development or locatable mineral entry; thus, there is a higher chance of development than if they were fully withdrawn…Increasing the area of high value fish habitat open to mineral entry would likely increase the impacts on fish and aquatic species, such as habitat degradation or the potential for injury or mortality."14These changes are often irreversible. We therefore urge the agency to include action alternatives that reduce the amount of acreage open to locatable mineral development. This is especially critical in the watersheds that drain into wildlife and fisheries habitats in the seven affected national wildlife refuges: Arctic, Innoko, Kanuti, Koyukuk, Mowitnz, Selawik, and Yukon Flats, and the two affected National Parks and Preserves: Gates of the Arctic and Denali. 13 DEIS at 3-66. 14 DEIS at 3-75.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS. The No Action alternative is part of the range of alternatives. As such, the Draft RMP/EIS discloses the effects of a range of alternatives from 50% of the planning area available for locatable mineral entry to 98% of the planning area available for locatable mineral entry. Because of the rights inherent in the 1872 Mining Law and the BLM's multiple-use mandate, this represents a range of reasonable alternatives. The effects of each of the alternatives are disclosed in Chapter 3.
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	14	Range of Alternatives	103.0400.00	Travel and Transportation Management (TTM) SOP TTM-1 The SOP prohibits using a streambed as a primary ice road or trail. It should be made clear that streambed does not include rivers, which sometimes have winter ice roads on them. SOP TTM-2 states that for BLM permitted activities, petroleum, oil, and lubricants could be transported in amounts greater than 1000 gallons over ice only under the direction of a licensed professional engineer. There are many operators who have already been doing that for years. This could be covered in the individual mine plan after showing competency and history and should be addressed through permitting rather than be referenced as stipulation in the RMP.	Thank you for your comment. The Proposed RMP/Final EIS keeps the SOP TTM-2. The beginning of **Appendix F** explains how the SOPs are applied, including that the BLM Authorized Officer may exclude, modify, or switch to another SOP if the SOP is not feasible.
Brown	Loretta	SalmonState	None	198	1	Range of Alternatives	103.0400.00	The BLM should identify a new preferred alternative to address measures that fall short of meeting requirements under FLPMA and NEPA in Alternative C2 Alternative C2, BLM's preferred alternative, prioritizes extractive uses over all other uses. SalmonState values this region of the state for its commercial, sport, and subsistence fishing and hunting as well as having a recreation, aesthetic, and cultural interest in the public lands, waters, and resources. The preferred alternative endangers SalmonState's interests in these invaluable lands by compromising these natural resources. Additionally, Alternative C2 does not fulfill BLM's requirements to maintain public land under "multiple use and sustainable yield"2 principals. Therefore, SalmonState requests BLM provides an alternative that reflects prioritizing protective measures for access to subsistence resources, and protections for important cultural resources, fish, wildlife, and habitat. The revised preferred alternative should include the immortalization of Alaska Native Claims Settlement Act ("ANCSA") Section 17(d)(1) withdrawals, adoption of previously nominated Areas of Critical Environmental Concern ("ACECs"), prioritizing resources and access for subsistence, protection of fish, habitat, further consideration of climate change, an adequate Alaska National Interest Lands Conservation Act ("ANILCA") Section 810 analysis, and meaningful government-to-government consultation with Alaska Native Tribes. 43 U.S.C. § 1732	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS.
Crockett	Deantha	Alaska Miners Association	None	199	30	Range of Alternatives	103.0400.00	No Right of Way (ROW) Exclusion Areas. There should be no ROW Exclusion Areas in the final plan. Future development on State and ANCSA corporation lands, and future communication and electrical lines between communities, will require ROWs across BLM lands. This is particularly true because BLM lands in the planning area are intermixed with State and ANCSA lands. BLM states "In areas identified as ROW exclusion areas, the BLM would not issue any ROW for any reason" (emphasis added). ROWs are necessary for any future oil or gas pipeline, road, railroad, transmission line, or fiber optics line or cable installation. Future needs for access for resource development are unknown and specific needs will be dictated by as-yet-undeveloped technologies and future discoveries, and should not be precluded by such pre-emptive designations. The proposed ROW exclusion areas in Alternatives B and C-1 would place large areas of BLM land off limits to any future ROWs. These exclusion areas are not consistent with the intent of Congress expressed in Title XI of the ANILCA, where Congress acknowledged that transportation and utility systems would need to be built across Federal lands in Alaska. ANILCA Sections 1102-1108 lays out a specific process for enabling Transportation and Utility Systems across protected Conservation System Units and Areas. We find it inconceivable that Congress envisioned that BLM would be more restrictive on access on multiple use lands than what is allowed in National Parks, National Wildlife Refuges and designated Wilderness.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS.
Crockett	Deantha	Alaska Miners Association	None	199	69	Range of Alternatives	103.0400.00	F.2.11 Travel and Transportation Management (TTM) SOP TTM-1 This concerns winter travel on streambeds. The SOP prohibits using a streambed as a primary ice road or trail. It should be made clear that streambed does not include rivers, which sometimes have winter ice roads on them.	The SOP states that "Rivers and streams shall be crossed at areas of grounded ice, whenever possible."
Crockett	Deantha	Alaska Miners Association	None	199	70	Range of Alternatives	103.0400.00	SOP TTM-2 states that for BLM permitted activities, petroleum, oil, and lubricants could be transported in amounts greater than 1000 gallons over ice only under the direction of a licensed professional engineer. There may be numerous operators who have already been doing that for years. This could be covered in the mine plan after showing competency and history and could be referenced as such in the RMP.	Thank you for your comment. The Proposed RMP/Final EIS keeps the SOP TTM-2. The beginning of **Appendix F** explains how the SOPs are applied, including that the BLM Authorized Officer may exclude, modify, or switch to another SOP if the SOP is not feasible.
Crockett	Deantha	Alaska Miners Association	None	199	85	Range of Alternatives	103.0400.00	Alternative B would place severe restrictions on development in the planning area. Specifically, the extensive (ACECs, Research Natural Areas (RNAs), high value watershed (HVWs), Lands Managed for Wilderness Characteristics, Class 1 and 2 viewsheds and other areas designated for special protection encompass very large percentages of the planning area. Under these designations, the management approach under Alternative B would prohibit or severely limit natural resource development as well as associated critical infrastructure (e.g., access, power, fiber, and other services) necessary for these projects. Overall, Alternative B is entirely inconsistent with BLM's mandate under FLPMA to manage its lands for multiple use. In addition, it completely fails to recognize Congress' intent under ANILCA when it designated an expansive area of over 100 million acres of CSUs across Alaska and left the remaining BLM-managed public lands available for more intensive use and disposition.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	8	Range of Alternatives	103.0400.00	We urge BLM to adopt the portions of Alternative B that provide for ecosystem integrity (including the ACECs that provide for habitat conservation, and other measures that ensure permafrost and soil conservation and subsistence opportunities), while still allowing for reasonable resource development. Alternative C2 is not legally viable unless it is adjusted to retain ACECs or include rigorous measures to identify and protect tribes' customary and traditional use areas through the Traditional Cultural Property nomination process.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	38	Range of Alternatives	103.0400.00	BLM should mandate that all activity avoid trespass on Native allotments.	The BLM does not authorize trespass onto Native allotments or other nonfederal land. Such an issue is not a plan-level decision and should be dealt with through proper channels.

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Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	25	Range of Alternatives	103.0400.00	We encourage the BLM to propose the following additional actions to adequately manage for habitat connectivity in the final RMP: * Develop additional safeguards for the connectivity areas outlined in Map G-3 in the draft RMP (p. G-9). "Doing ROW avoidance where practicable" is inadequate. At best, these identified corridors would be formally designated as "wildlife movement corridors" and be managed primarily to protect intact, undisturbed habitat. Management standards in these areas should include no revocation of PLOs within these corridors, no revocation of d-1 withdrawals, and higher percentages of ROW avoidance than what is currently proposed. * SOP Landscape 1 (p. F-14), to safeguard connectivity corridors, should be applied to all alternatives, not just Alternative B (p. 3-84). * Also, in Appendix F, include SOP Benchmark 4 requiring the use of BEACONS-type GIS products to identify areas with minimal conflict to maintaining ecological connectivity with each locatable mineral and ROW permit decision.	Rights inherent in the 1872 Mining Law prevent the BLM from requiring the use of BEACONS data to identify low-conflict areas for locatable mineral development. Furthermore, BEACONS data is not, in-and-of itself representative of low-conflict areas. Operators should use any and all information available to them to screen areas for low conflicts in order to streamline permitting of their project. However, any project that conforms with the land use plan and other applicable laws, regulations, and policies, can be permitted.
National Wildlife Refuges	Koyukuk	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	205	2	Range of Alternatives	103.0400.00	It is unclear in the plan how CCs will be managed or how management varies between alternatives. We would ask for better clarification of the management of connectivity corridors within each alternative. In addition we have particular concerns about potential full revocation of PLOs in which no protections are offered through CC's, ACECs, watershed protections, and mining and mineral development restrictions if PLO selected lands are ultimately conveyed to the State of Alaska or Native entities through the ANILCA 17 (d) (1) identified process.	Connectivity corridors have been clarified in the Proposed RMP/Final EIS. The connectivity corridors were made with modeled data and not-ground-truthed data. A table showing selected allocations by alternative by connectivity corridors was added to **Appendix G**, Adaptive Management Framework.
National Wildlife Refuges	Koyukuk	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	205	5	Range of Alternatives	103.0400.00	Alternative C2 does not adequately address: o protection of thaw-sensitive soils and minimization of permafrost o protection of air quality o limits to effects on climate change o reducing potential detrimental direct or indirect impacts on cultural resources o management of special status species (SSS) flora and unique ecosystems o preservation of wilderness character (e.g. lands with wilderness characteristics (LWCs) would be managed to emphasize other multiple uses as a priority over protecting wilderness characteristics.)	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	206	4	Range of Alternatives	103.0400.00	Revoking these PLOs will put NWR resources at risk through potential significant impacts to watersheds, including water quality and quantity, fisheries and wildlife populations, and Federal subsistence opportunities. Protected areas can be significantly impacted by land use practices outside of their boundaries (Belote and Wilson 2020). The Preferred Alternative (C2) would lift mineral withdrawals and open 13 million acres (almost 100% of planning area) to locatable mineral entry. We recommend the BLM not revoke PLOs 5150, 5175, 5184, 5173, 5179, 5180, 5186, and 5242 without first or simultaneously putting new FLPMA withdrawals in place to protect these Federal trust resources, especially in areas where there is high or medium potential for mineral or oil and gas development.	The BLM considered a reasonable range of alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not revoke PLO 5150 and does not fully revoke the ANCSA 17(d)1 withdrawals.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	206	5	Range of Alternatives	103.0400.00	The Service requests that if the BLM does proceed with a recommendation for revoking withdrawals under any of the action alternatives, they proceed with their own recommendation (Table 2-19) that "[w]here appropriate for carrying out management decisions under Alternatives B and C1, recommend new FLPMA withdrawals or modifications to existing withdrawals to meet the current and future management needs." In that spirit, and as complementary to goals for achieving ecological benchmarks (see BEACON map G-1 for Alt. B), the Service recommends the BLM consider new withdrawals or modification of existing withdrawals to maintain protection of: · ACEC-designated lands; · Lands with Wilderness Characteristics (LWC) designations; · Wild and Scenic River corridors (particularly the Nowitna and Selawik WSRs); · BLM townships directly abutting NWRs and those encompassing waterways/watersheds entering NWRs; · lands abutting the southeast corner of the Kanuti NWR (as per Alternative A); · the utility corridor in PLO 5150; · high-value watersheds upstream or adjacent to Kanuti, Koyukuk, Nowitna, Innoko, Yukon Flats, Arctic, and Selawik NWRs; · areas within the Galena Mountain Caribou Herd's core calving grounds; and · areas necessary to protect Federal rural subsistence opportunities and resources.	The BLM considered a reasonable range of alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not revoke PLO 5150 and does not fully revoke the ANCSA 17(d)1 withdrawals.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	206	10	Range of Alternatives	103.0400.00	The Service supports the use of the BEACON model and active adaptive management strategy identified under Alternative B; however, we feel the proposed application must incorporate protections to the reference and control areas (Benchmark network) to achieve the desired outcome of maintaining ecological resilience and landscape connectivity, and serve as controls for detecting and understanding the influence of human activity on ecological systems. When applied as designed, this model will help ensure that the BLM achieve its mandate of sustainable management of resources for the use and enjoyment of present and future generations. The application of the BEACON model will also aid the Service in its ability to achieve the NWR purposes identified in ANILCA. Contrary to the construct of the BEACON model, under all action alternatives, the BLM proposed to open up a substantial amount of the planning area to locatable mineral entry and subsequent development, ranging from 82% of Alternative B, 92% in Alternative C1, and 98% and 98% in C2 and D, respectively. This creates, across the interior Alaska landscape, a significant area of unplanned development, exactly the opposite of what the ecological benchmarks and BEACON tools were designed to do. The intention of the BEACON model is to provide ecological benchmark controls for comparing actively managed lands with baseline conditions. We ask the BLM to please consider incorporating adaptive management tools (e.g., ecological benchmark) for all the alternatives to monitor landscape-level changes more effectively in lands under the BLM's care. The Service requests the BLM prioritize discreet regions for intensive management to limit the development footprint. Lastly, the Service deems the retention of the benchmarks offered in Alternative B, which cover the headwater areas of several Refuges, encompass 18 ACECs, and encompass connectivity corridors that are important to far-ranging species as being vital to fish, wildlife, and habitat resources in regard to climate adaptation.	Adaptive management tools have been incorporated. The concepts of benchmarks and connectivity corridors are part of an adaptive management strategy. They will be continually monitored and updated with the best available science as warranted. There are no new management allocations associated with this adaptive management strategy. Both ecological benchmarks and connectivity corridors would be treated as resources on the landscape with defining attributes, and they would be managed for sustained yield for those defining attributes. While different benchmarks are identified under different alternatives, benchmarks under Alternatives B and E (the Proposed Plan) would be identical. Management of lands recognized as benchmarks would be the same under Alternatives B, C1, and E. Management would be accomplished by applying the SOPs (see RMP/EIS, **Appendix F**). Connectivity corridors would be the same under Alternatives B, C1, and E. Landscape connectivity corridors would be the same under Alternatives B, C1, C2, D, and E.
Fox	Jimmy	U.S. Fish and Wildlife Service	Kanuti National Wildlife Refuge	207	46	Range of Alternatives	103.0400.00	Further, we understand the need for flexibility in managing permitted operations/resources; however, it is still possible to allow for resource development while still requiring SOPs. To alleviate the uncertainty associated with SOP application, we urge the BLM to incorporate all SOPs in the plan itself, as Management Actions, and eliminate ambiguous and discretionary language (per BLM's Land Use Planning Handbook, Management Actions: "Land use plans must identify the actions anticipated to achieve the desired outcomes, including actions to maintain, restore, or improve land health."). Further state explicitly if these SOPs now turned into management actions are required or not.	SOPs in **Appendix F** are not discretionary insofar as an SOP would be required by specific project conditions.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	58	Range of Alternatives	103.0400.00	We support the use of the BEACONs model and adaptive management strategy identified under Alternative B, however, we feel the proposed application in Alternative B must incorporate protections to the reference and control areas (benchmark network) to achieve the desired outcome of maintaining ecological resilience and landscape connectivity, and serve as controls for detecting and understanding the influence of human activity on ecological systems.	The reference and control areas are largely on non-BLM land in CSUs. The aim of the alternatives is to support the benchmark network. Alternative B considers a broad range of protective measures.
Fox	Jimmy	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	207	78	Range of Alternatives	103.0400.00	The BLM Land Use Planning Handbook H-1601-1 (Appendix D, Section II., Section A, Table D-1, page 2), directs BLM during its planning process to "Assess mitigation opportunities to enhance alternatives' positive effects and minimize their negative effects." Given the direction and guidance found in FLPMA and many of the laws, regulation and policy guiding BLM's planning effort, we urge a reconsideration of BLM's proposed use of mitigation across the action alternatives. Currently it appears the hierarchy in 40 CFR 1508.20 above defines five mitigation strategies that could have been applied by BLM to "enhance alternatives' positive effects and minimize their negative effects."	The SOPs in **Appendix F** serve as mitigation opportunities.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Fox	Joanna	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	208	2	Range of Alternatives	103.0400.00	Should BLM ultimately proceed with revocations of some or all of the PLO withdrawals, we support BLM's own recommendation (Table 2-19) to recommend new Federal Land Policy and Management Act (FLPMA) withdrawals or modifications to existing withdrawals to meet current and future management needs. Specifically, we would recommend new FLPMA withdrawals for those current BLM townships directly surrounding Kanuti NWR, including those which are currently withdrawn under PLOs 5150, 5173, 5179, and 5184 (ensuring continued protection of the Kanuti River and Bonanza Creek/Fish Creek/Jim River/ South Fork Koyukuk to the east, and the Kanuti-Kilolitna River to the south). We would further recommend additional FLPMA withdrawals for townships encompassing waterways/watersheds entering the Refuge that do not necessarily directly abut the Refuge border. Alternatively, we could further support FLPMA withdrawals maintaining at least a one-mile buffer on each side of said waterways if linear withdrawals are more practical along riparian areas for the purposes of protecting watersheds downstream in Kanuti NWR. FLPMA withdrawals adjacent to and/or upriver of the Refuge are especially important if similarly protective management classes like ACECs are not established.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS.
Baker	Barbara	Greater Appalachian Llama & Alpaca Assn.	None	2	1	Recreation and Visitor Services	209.0400.00	I request that the statement "Use of camelids (including alpacas and llamas) as pack animals..." (page 2-29 CY draft RMP-EIS volume1) be removed because it holds camelids to a different standard than equids (horses, mules, etc.) and other user groups in this BLM jurisdiction. For example, BLM is apparently not holding equids to this same standard because no mention of equids is made in this statement. BLM has not provided any scientific evidence that camelids are a greater disease transmission risk to wild sheep than equids. Both camelids and equids enjoy wide taxonomic separation from wild sheep (bovids) with corresponding strong species barriers against disease transmission. The lack of disease in pack llamas is well documented, as is their small environmental impact. So there is NO reason to hold camelids to a more rigid standard than equids.	The EIS has been revised to remove reference to camelids and instead addresses "pack animals." The language now states: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat. To minimize the potential for disease transmission to wildlife, applications for the use of pack animals would be reviewed and permitted on a project-specific basis.
Nuechterlein	Linda and Phil	No organization name	None	6	1	Recreation and Visitor Services	209.0400.00	Volume One page 2- 29 states as follows: (I quote) "Use of camelids including alpacas and llamas as pack animals would be authorized as appropriate through the normal permitting process." (end of quote) I would like it to be on record that I am asking BLM to remove this statement. This statement holds camelids to a different standard then equids, for example, by not including equids under the same requirement. If BLM is going to require camelid authorization, why wouldn't horses also require the same authorization under the same circumstances? BLM has not presented any credible basis for quantifying disease or impact risk of camelids as greater than equids.	The EIS has been revised to remove reference to camelids and instead addresses "pack animals." The language now states: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat. To minimize the potential for disease transmission to wildlife, applications for the use of pack animals would be reviewed and permitted on a project-specific basis.
Ebel	Stan	No organization name	None	10	1	Recreation and Visitor Services	209.0400.00	My main focus is on page 2-29 of the management plan. The -- there's a paragraph there, maintain effective separation between domestic animals and Dall sheep per the Wild Sheep Working Group 2012 and consistent with BLM Manual 1730. Domestic sheep and goats are prohibited in Dall sheep habitat. Then the last sentence, use of camelids, including alpacas and llamas, as pack animals would be authorized as appropriate through the normal permitting process. I'm going to have the same issue that the previous two callers have. You cite WAFWA 2012, and BLM Manual 1730. Both of those are specific to caprids, wild sheep and goats, and domestic sheep and goats. The interaction there is that they are the disease threat. And I don't see any citation of research or documentation that would indicate that camelids would have to have special access or be permitted. There doesn't seem to be any rationale for that. I would think that the solution to it would be either to eliminate the last sentence completely or to modify it that it's applicable to all pack stock, regardless of species, outside of the caprid species. I think that that -- you know, from what I can tell, there is no reason for the differentiation and that that should be ameliorated either by taking that out or amending to include all pack animals.	The EIS has been revised to remove reference to camelids and instead addresses "pack animals." The language now states: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat. To minimize the potential for disease transmission to wildlife, applications for the use of pack animals would be reviewed and permitted on a project-specific basis.
Nuechterlein	Linda	No organization name	None	11	1	Recreation and Visitor Services	209.0400.00	I appreciate that llamas in the BLM Central Yukon management area are not banned, so thank you for that. However, I do have an issue with BLM's proposal to allow horses without a permit, but requiring a permit for pack llamas or camelids, whether it be for commercial or recreational use. Therefore, I request that the statement in the draft Central Yukon RMP/EIS, Volume I, page 2-29, as follows, be removed: Quote, use of camelids, including alpacas and llamas as pack animals, would be authorized as appropriate through the normal permitting process, end of quote.	The EIS has been revised to remove reference to camelids and instead addresses "pack animals." The language now states: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat. To minimize the potential for disease transmission to wildlife, applications for the use of pack animals would be reviewed and permitted on a project-specific basis.
Nuechterlein	Phil	No organization name	None	12	1	Recreation and Visitor Services	209.0400.00	So the comments I have regarding the Central Yukon draft Resource Management Plan and Environmental Impact Statement relate to Volume I, page 2-29, which states as follows: I quote, use of camelids, including alpacas and llamas as pack animals would be authorized as appropriate through the normal permitting process, end of quote. I would like it to be on record that I am asking BLM to remove this statement. This statement holds camelids to a different standard than equids for example, by (indiscernible - audio breakup) including equids under the same (indiscernible - audio breakup). If BLM is going to require camelid authorization, why wouldn't horses also require that same authorization under the same circumstances?	The EIS has been revised to remove reference to camelids and instead addresses "pack animals." The language now states: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat. To minimize the potential for disease transmission to wildlife, applications for the use of pack animals would be reviewed and permitted on a project-specific basis.
Woodruff	Scott	No organization name	None	15	1	Recreation and Visitor Services	209.0400.00	There are no cited references or research in your draft Resource Management Plan that implicates pack llamas as a disease threat to wild sheep. In the draft Resource Management Plan/EIS on page Q-58, impacts common to all action alternatives under Dall sheep, it says, maintain effective separation between domestic animals and Dall sheep, Wild Sheep Working Group 2012, and consistent with the BLM Manual 1730. Domestic sheep and goats are prohibited in Dall sheep habitat. Then it goes on to say, the use of camelids, including alpacas and llamas, as pack animals would be authorized as appropriate through the normal permitting process. It also says the same thing in Volume I, page 2-29 and 3-145; it has the same wording. I don't even think you should put that last paragraph in there. But if you don't take it out, because pack llamas have been singled out arbitrarily here, I would, respectfully, request that you use the following alternative terminology for your final Resource Management Plan and Record of Decision. It's a very simple change and more accurate representation. You could replace it with: The use of other pack animals would be authorized as appropriate through normal permitting process. Or you could use your neighbor's recent Record of Decision on the BLM Bering Sea, and it says: To minimize the potential for disease transmission to wildlife applicants for the use of pack animals would be reviewed on a project-specific basis.	The EIS has been revised to remove reference to camelids and instead addresses "pack animals." The language now states: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat. To minimize the potential for disease transmission to wildlife, applications for the use of pack animals would be reviewed and permitted on a project-specific basis.
Thorne	Rich	No organization name	None	24	2	Recreation and Visitor Services	209.0400.00	I know BLM doesn't address the hunting laws, but I think if you're going to do this as a Resource Management Plan, you need to look at a larger set of criteria than just, we have to protect an area for caribou. I -- and we have to protect this and protect that. I -- this whole thing is an ecosystem and people are part of that ecosystem, and if people are going to be able to use their subsistence rights, which I support, by the way, I -- then you've got to allow us to do the predator control and not interfere with the subsistence use.	The BLM recognizes the importance of subsistence use and has developed a range of alternatives in the RMP that responds to those uses. As the commenter notes, the BLM does not have authority over hunting.
Ebel	Stan	Buckhorn Llama Co., Inc.	None	33	1	Recreation and Visitor Services	209.0400.00	I find no problem with the first 2 sentences: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat." The cited documents (Wild Sheep Working Group 2012; BLM Manual 1730) as well as other research, support this position regarding domestic sheep and goats. These cited documents offer no support for the final sentence: "Use of camelids (including alpacas and llamas) as pack animals would be authorized as appropriate through the normal permitting process". It is arbitrary to assign provisional access to "camelids (including alpacas and llamas) as pack animals" with no supporting research or documented need. The appropriate wording would simply drop the third sentence regarding provisional access for camelid pack animals and the policy statement would read: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat." If BLM feels provisional regulation of non-caprid pack animals is necessary, I recommend this concluding sentence: Use of non-caprid pack animals would be authorized as appropriate through the normal permitting process." This language eliminates the arbitrary and erroneous suggestion that camelids present a greater disease threat to wild sheep than equids, etc. This language would also be consistent with that in the recently completed BLM-BSWI EIS and MP that states: "To minimize the potential for disease transmission to wildlife, applications for the use of pack animals will be reviewed on a project-specific basis."	The EIS has been revised to remove reference to camelids and instead addresses "pack animals." The language now states: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat. To minimize the potential for disease transmission to wildlife, applications for the use of pack animals would be reviewed and permitted on a project-specific basis.

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Raynolds	Martha	No organization name	None	74	3	Recreation and Visitor Services	209.0400.00	BLM should also not allow the transfer of land ownership along the Dalton Highway Corridor to the State of Alaska. Just this fall of 2020, we had a horrific example of how the State manages its roadside areas, with off-road traffic creating permanent rutted trails all over the Eagle Summit area. ADF&G opened up the area to caribou hunting, with no limitation on access methods, and a bag limit of two caribou per person. Meanwhile ADNR, which is supposed to manage the land surface, said they had no means of regulating hunters. The result was serious conflicts between hikers and hunters, torn up and damaged trails, gut piles along hiking trails, and ATV ruts all over sensitive permafrost tundra landscapes that will never heal. I happened to drive through this area returning from a canoe trip, soon after the hunt and saw hundreds of ravens feasting on gut piles. I could not believe how many trails had been created since I had driven through a week before, and how much tundra had been damaged in such a short time.	When transferring land out of federal ownership, the BLM adheres to FLPMA requirements, specifically the disposal criteria in Section 203(a). The BLM does not have the authority to prescribe management once lands are transferred out of federal ownership.
Karro	Loren	No organization name	None	119	13	Recreation and Visitor Services	209.0400.00	Existing wilderness guide and hunting guide businesses in the area would be directly and detrimentally impacted by further mining development. The 2021 McDowell Group Study of the Economic Impacts of Guided Hunting in Alaska shows that Alaska guided hunting directly produced about $62.4 million dollars of revenue in 2019; and 37% of the guided hunting activity was in the Interior and Northeast and Northwest regions of Alaska. This doesn't include the revenue generated by license and tag sales and the associated Pittman-Robertson funds (license and tag sales X 3) which go to support a major portion of the ADF&G annual budget. It should be noted that 85% of registered guides are Alaskan residents, as compared to the high percentage of mining companies that are owned by multinational corporations based overseas. Another McDowell study showed that the Tourism/Visitor hospitality industries created more than 4 times the number of jobs that the mining industry created, and resulted in three times the economic output of mining ($4.5 Billion for tourism/visitor compared to $1.5 billion for mining). This indicates that the best future economic investment would be to encourage outdoor recreation industries by protecting the study area lands, wilderness values, and sustainable resources. It should be noted that outdoor activities such as fishing and hunting utilize renewable resources, while extractive industries deplete the resources permanently, thus outdoor recreation industries has an unlimited future with a small footprint on the land, the opposite of extractive resource development. Section 202 c of FLPMA states that "In the development and revision of land use plans, the Secretary shall ….(g) weigh longterm benefits to the public against short-term benefits."	The Draft RMP/EIS analyzes the impacts of the proposed alternatives on recreation, including the socioeconomic contributions of the recreation industry in the planning area.
Whitehill	Barry	No organization name	None	137	3	Recreation and Visitor Services	209.0400.00	If considering adoption of the Dalton Corridor BCA, I would encourage the BLM to develop a plan that is consistent with IM 2017-036 under the Formulation of Resource Management Alternatives and should specifically address the seven components identified there: * Goals * Fish/Wildlife Objectives * Recreation Objectives * Designations * Resource Use Determinations * Land Tenure Decisions * Monitoring and Evaluation Standards	The BLM must adhere to Instruction Memorandum Number 2017-036, Considering Backcountry Conservation Management in Land Use Planning Efforts. This IM requires the agency to consider the seven plan components identified by the commenter. The components are documented in Chapter 2 and **Appendix K** of the Draft RMP/EIS and Proposed RMP/Final EIS.
Zarnke	Randall	Alaska Trappers Association	None	141	1	Recreation and Visitor Services	209.0400.00	Alternative C2 appears to be the only reasonable alternative offered. This alternative would finally rightly transfer the inner corridor along the Dalton Highway to the State of Alaska. This would allow for additional road access away from the 5 mile corridor closed to hunting with firearms (AS17.05.789) along the pipeline north of the Yukon. That would make millions of acres of public land more accessible to users. Also, we urge plan administrators to develop more reasonable regulations regarding trapping cabins. The agency has a terrible track record of trying their best to prevent trappers from being able to build small 'line cabins on BLM-administered lands. The unnecessary restrictions could easily be relaxed to allow for reasonable use of cabins by trappers without having any adverse environmental impact.	The RMP does not consider the environmental consequences of trapline cabins on BLM-administered lands. Approval of these structures would be subject to the appropriate permitting or leasing requirements per the FLPMA. No change in trespass policy is proposed to allow unauthorized structured on BLM-administered lands.
Gestring	Bonnie	Earthworks	None	146	9	Recreation and Visitor Services	209.0400.00	We request that specific management actions for BCAs demonstrate a clear commitment for 1) wildlife habitat, with anticipated actions to not only conserve, but also restore and enhance habitats, and 2) public access, with the intent for existing routes to largely remain open.	The BLM must adhere to Instruction Memorandum Number 2017-036, Considering Backcountry Conservation Management in Land Use Planning Efforts. This IM requires the agency to consider the seven plan components identified by the commenter. The components are documented in Chapter 2 and **Appendix K** of the Draft RMP/EIS and Proposed RMP/Final EIS.
Gestring	Bonnie	Earthworks	None	146	10	Recreation and Visitor Services	209.0400.00	We encourage the BLM to consider the following actions in Appendix K.8 to ensure that the Dalton Corridor BCA complies with the management criteria and guidance provided in IM 2017-036 under Formulation of Resource Management Alternatives: * Develop distinct goals for habitat and recreational opportunities. * The fish/wildlife objective(s) should be measurable and "should ensure that the intact and undeveloped character of the land and habitat will be protected from fragmentation and development, and improved, where possible, to better protect backcountry resources. * The recreation objective(s) should also be measurable and "should focus on protecting and enhancing high-quality wildlife-dependent recreation opportunities. * Include resource use determinations (e.g., OHV designations, ROW avoidance or exclusion areas, recommendations for locatable mineral withdrawals, caps on surface-disturbing activities); they are omitted entirely from the draft RMP. * Include land tenure decisions that support backcountry conservation goals, and "consider retaining in federal ownership those lands within the area under consideration for backcountry conservation management." Along similar lines, IM 2017-036 requires the BLM to "consider allowing for acquisition of key parcels or easements adjacent to or within the areas under consideration for backcountry conservation management in order to support conservation and connectivity of important fish and/or wildlife habitats and/or improved public access. * Establish monitoring and evaluation standards to "ensure that the fish/wildlife and recreation objectives are being met."	The BLM must adhere to Instruction Memorandum Number 2017-036, Considering Backcountry Conservation Management in Land Use Planning Efforts. This IM requires the agency to consider the seven plan components identified by the commenter. The components are documented in Chapter 2 and **Appendix K** of the Draft RMP/EIS and Proposed RMP/Final EIS.

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Magee	Susan	State Of Alaska	None	165	52	Recreation and Visitor Services	209.0400.00	Trapping Cabins * Issue: Numerous ACECs prohibit trapping cabin locations within the 100-year flood plain. * Proposed Resolution: Clarify in the final RMP that trapping cabins are allowed within the 100-year floodplain areas of all streams; conform distance limits between cabins and waterways with those in the State Yukon Tanana Area Plan (YTAP) and North Slope Area Plan (NSAP). * Discussion: The draft RMP/EIS identifies trapping as an important subsistence activity in the communities located in the planning area and finds trapping and the use of temporary structures as a compatible activity, including LWCs, which often overlay ACECs. In Chapter 3 of the draft RMP/EIS, BLM states: In addition, the BLM considers several subsistence activities specified in ANILCA to be compatible with LWCs in Alaska, including use of public cabins and shelters, snowmachine use with adequate snow cover, airplane use and primitive landing areas, motorboat use, and building temporary structures for hunting, fishing, or trapping (BLM 2016b). (page 118, 4thfull paragraph) ANILCA 1303(b)(1) also allows for trapping cabins in CSUs as Congress recognized trapping was a traditional and customary use to be provided for in areas of high resource value. It follows that trapping cabins compatible with LWC and CSU lands would also be compatible with proposed ACECs. However, despite the intent to support trapping and clarify management actions within the draft RMP/EIS for LWCs, management actions for ACECs and HVWs under Alternative B impede the opportunity for trappers to locate trapping cabins along waterways within the planning area-an action critical to many trap lines. For example, management actions for the Tozitna ACEC in Appendix J states: All BLM-authorized camps and support facilities within the confines of the ACEC, including cabins and tent frames, would not be in the 100-year floodplain (Appendix J, p. 14). This management action is not limited to the Tozitna ACEC as the draft RMP/EIS would also prohibit trapping cabins in the 100-year flood plain in the following ACECs: Hogatza River Tributaries, Indian River, Klikhtentotzna Creek, Sethkokna River, South Fork Koyukuk River, Upper Teedriinjik (Chandalar) River, Wheeler Creek, Alatna River, Jim River, Mentanontli River/Lake Todatonten, Sulukna River, and Huslia. These management actions put trapping cabins a minimum of 100 feet from the ordinary high-water mark of a stream. The on-the-ground application of setting riparian buffer distances according to the flood plain will make it extremely difficult for users to determine where these activities are allowed. This is another example of proposed management creating unnecessary confusion and uncertainty for the public and for law-abiding citizens who wish to use the public lands when even land management professionals have a hard enough time trying to discern the complexities of concurrent state and federal jurisdiction. The average person is in an even worse predicament. We request trapping cabin use on BLM lands conform to State area plans, as determined in the YTAP and NSAP, which provides for trapping cabins to be located along waterways while still protecting area resources and maintaining management continuity for the public users of the area. Specifically, conformity with the YTAP and NSAP would allow trappers to have cabins within the 100-year floodplain but not within 100 feet of the ordinary highwater mark of anadromous waters and high value waterbodies, and 50 feet adjacent to all other waterbodies, as well as allow for greater buffer distances in specific identified circumstances.	The RMP does not consider the environmental consequences of trapline cabins on BLM-administered lands. Approval of these structures would be subject to the appropriate permitting or leasing requirements per the FLPMA. No change in trespass policy is proposed to allow unauthorized structured on BLM-administered lands.
Magee	Susan	State Of Alaska	None	165	56	Recreation and Visitor Services	209.0400.00	Section 1.6 of the draft RMP states the plan's intent is to "Advance efforts to expand hunting, fishing, and recreational opportunities consistent with Secretarial Orders 3347, 3356, and 3366." Yet the draft RMP provides no evidence of an applied strategy to increase public access to hunting in the field. Additionally, the draft RMP fails to recognize and support SO 3362 as it relates to improving collaboration with the State to advance such efforts in the planning area.	The Proposed management includes a range of alternatives for managing recreation opportunities and access, including for hunting. Alternative B, for example, would designate a BCA to focus on providing semiprimitive recreational hunting opportunities. The goal of the BCA would be to maintain a recreational hunting-focused experience for users of the BCA. Planning criteria identified during the planning process included advancing efforts to expand hunting, fishing, and recreational opportunities consistent with Secretarial Orders 3347, 3356, and 3366. The RMP seeks to achieve the directives in the respective Secretarial Orders. SO 3362 does not specifically apply to Alaska or big game species in Alaska.
Mannix	Jacob	Backcountry Hunters & Anglers	None	185	27	Recreation and Visitor Services	209.0400.00	Adoption of the Dalton Corridor BCA is also a measure to assist the BLM in implementing Department of the Interior Secretarial Orders 3347 and 3356 which support Executive Order 13443, Facilitation of Hunting Heritage and Wildlife Conservation. * S.O. 3347: Expanding Recreational, Hunting and Wildlife Conservation Opportunities o enhance conservation stewardship, increase outdoor recreation and improve the management of habitat, including for game species. * S.O. 3356: Hunting, Fishing, Recreation Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories o Builds upon S.O. 3347 and seeks to expand opportunities for big game hunting for all Americans by coordinating efforts with various management agencies to improve quality big game habitat.	Planning criteria identified during the planning process included advancing efforts to expand hunting, fishing, and recreational opportunities consistent with Secretarial Orders 3347, 3356, and 3366. The RMP seeks to achieve the directives in the respective Secretarial Orders.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	57	Recreation and Visitor Services	209.0400.00	We encourage the BLM to consider the following actions to ensure that the Dalton Corridor BCA complies with the management criteria and guidance provided in IM 2017-036 under Formulation of Resource Management Alternatives: * Develop distinct goals for habitat and recreational opportunities. * The fish/wildlife objective(s) should be measurable and "should ensure that the intact and undeveloped character of the land and habitat will be protected from fragmentation and development, and improved, where possible, to better protect backcountry resources. * The recreation objective(s) should also be measurable and "should focus on protecting and enhancing high-quality wildlife-dependent recreation opportunities. * Include resource use determinations (e.g., OHV designations, ROW avoidance or exclusion areas, recommendations for locatable mineral withdrawals, caps on surface-disturbing activities); they are omitted entirely from the draft RMP. * Include land tenure decisions that support backcountry conservation goals, and "consider retaining in federal ownership those lands within the area under consideration for backcountry conservation management." Along similar lines, IM 2017-036 requires the BLM to "consider allowing for acquisition of key parcels or easements adjacent to or within the areas under consideration for backcountry conservation management in order to support conservation and connectivity of important fish and/or wildlife habitats and/or improved public access. * Establish monitoring and evaluation standards to "ensure that the fish/wildlife and recreation objectives are being met."	The BLM must adhere to Instruction Memorandum Number 2017-036, Considering Backcountry Conservation Management in Land Use Planning Efforts. This IM requires the agency to consider the seven plan components identified by the commenter. The components are documented in Chapter 2 and **Appendix K** of the Draft RMP/EIS and Proposed RMP/Final EIS.
Gestring	Bonnie	Earthworks	None	148	1	Requires detailed review	504.0000.00	These are supporting materials for the comments submitted by Earthworks et al.	Thank you for your comment. These submissions were received and considered at part of BLM's response to the comments they relate to. These submissions are part of the decision file, and the best available information was considered in development of the RMP/EIS.
Gestring	Bonnie	Earthworks	None	151	1	Requires detailed review	504.0000.00	These are supporting documents for the comments submitted by Earthworks et al.	These submissions were received and considered at part of BLM's response to the comments they relate to. These submissions are part of the decision file, and the best available information was considered in development of the RMP/EIS.
Gestring	Bonnie	Earthworks	None	152	1	Requires detailed review	504.0000.00	These documents are submitted in support of comments from Earthworks et al.	Thank you for your comment. These submissions were received and considered at part of BLM's response to the comments they relate to. These submissions are part of the decision file, and the best available information was considered in development of the RMP/EIS.
Crockett	Deantha	Alaska Miners Association	None	199	98	Requires detailed review	504.0000.00	Attachments: * June 27, 2012 letter from Secretary of Interior Ken Salazar to Governor Sean Parnell * Map titled "Metal Source Provinces, Tin, REE, Tungsten" attached to this letter. * Previous comments by the Alaska Miners Association regarding CYRMP	These submissions were received and considered at part of BLM's response to the comments they relate to. These submissions are part of the decision file, and the best available information was considered in development of the RMP/EIS.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Shon Jodwalis	Lisa	No organization name	None	197	9	Resources	208.0000.00	Ecological services should be enumerated and given equal weight in the Plan. Fish, wildlife, wetlands, and forests all play a role in providing for local residents and helping to absorb some of the impacts of climate warming. Extractive industries do provide critical resources, but their development should not harm the sustainable ones. Transportation of oil down through Utility Corridor has continued for 45 years while the scenery, wildlife, and wild lands have remained largely intact. Careful management can continue that remarkable achievement. Protections for wildlife, free-flowing rivers, and scenic wild lands are clearly possible even with the priority of transportation of energy resources. This is demonstrated by the current system of ACECs for valuable Dall Sheep and fisheries habitat.	Ecological benchmarks exist in all action alternatives. However, the BLM would actively manage to contribute to the function of ecological benchmarks under Alternatives B and C1.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	64	Social and Economic Conditions	212.0300.00	We believe that Appendix S did not sufficiently analyze the economic costs versus benefits of an alternative, like C2, that greatly favors non-sustainable extractive locatable minerals mining over sustainable multiple uses that include wildlife, fish, and intact watersheds. For example, Appendix S did not analyze the trade-offs involving sustainable outdoor-supported tourism, and a rural subsistence-based economy, compared to the economic value derived from mining activities and its spinoffs. One illuminating fact is that in 2017 on an Alaska statewide basis McDowell Group (2018a, 2018b) reported employment in tourism/hospitality/outdoor recreation was five times greater than mining. The economic contribution of tourism/hospitality/outdoor recreation was three times greater than the contribution of mining, statewide. The final RMP/FEIS must perform a similar economic analysis specific to the planning area to fully understand the trade-offs, and long-term cost-benefits of emphasizing sustainable multiple uses versus emphasizing extractive mineral development.	Because this is a programmatic EIS on a plan, there is not information available regarding specific changes in recreation use levels and patterns. Without this information, the associated economic benefits cannot be calculated. Similarly, the BLM does not have any details about proposed mines that would be gained or lost under the plan, so cannot calculate information about jobs and income to compare to recreation jobs and income if it existed. In the future, when we evaluate specific projects and impacts, these are considerations that would be taken into account.
Spindler	Mike	The Wildlife Society	None	83	19	Social and Economic Conditions	212.0300.00	The analysis in Appendix S did not consider the potential future economic value of mining and other extractives, compared to the value of tourism, recreational hunting and subsistence in the planning area. That is a trade-off that must be examined for the final RMP/FEIS. I speculate that the long-term future economic value of sustainable multiple uses such as recreation/tourism/subsistence would significantly outweigh the potential economic benefit of mining over the same time period in the planning area. I assert this because Table 2, below, summarizes actual economic value of mining compared to tourism in Alaska in a recent year, 2017 (that was NOT affected by the covid pandemic). The contribution of tourism/hospitality to Alaska's employment was almost five times more than mining; economic output of tourism/hospitality was about three times that of mining, according to the McDowell Group. Furthermore, between 2012 and 2017 total state GDP decreased 9% while the share of economic growth in GDP contributed by outdoor recreation increased 19% (http://www.alaskatia.org/wp-content/uploads/BEA-state-stats-1.pdf)). These economic patterns suggest that a better investment for the future would be to protect the land and sustainable "viewshed" resources that will support tourism and outdoor recreation in the planning area well into the future with negligible negative impacts, compared to liberally permitting mining activities in the entire planning area. Alternative C2 should be rejected based on economics because its singular focus on mining and other developments will likely degrade the more valuable and sustainable economic opportunities that an outdoor natural environment in the planning area could provide. Alternative B, with retention of the Alternative A aspects I mention above, would best provide for that in the long term. See attached comment letter for Table 2. Economic output of tourism and mining in Alaska in a recent, pre-Covid year, 2017	Because this is a programmatic EIS on a plan, there is not information available regarding specific changes in recreation use levels and patterns. Without this information, the associated economic benefits cannot be calculated. Similarly, the BLM does not have any details about proposed mines that would be gained or lost under the plan, so cannot calculate information about jobs and income to compare to recreation jobs and income if it existed. In the future, when we evaluate specific projects and impacts, these are considerations that would be taken into account
Raskin	David	Friends of Alaska National Wildlife Refuges	None	88	17	Social and Economic Conditions	212.0300.00	Friends/NWRA do not agree that BLM's selection of C2 as the preferred alternative provides a reasonable balance between sustainable multiple uses and extractive, nonsustainable mineral development. The RMP/DEIS should provide an opportunity for BLM to envision a new, sustainable future based on the economics of attractive businesses, e.g., tourism, hospitality, recreation and subsistence as opposed to maintaining its historical bias for the declining extractive industries of oil and gas production and mineral development (see Table 1 below). * Appendix S acknowledges that preferred Alternative C2: …may result in the development of these mineral resources and related economic activity in the mining and support industries in the short term (pg. S-30). * Appendix S envisions a significant impact to recreational hunting …big game populations sought for sport hunting may not be as robust under Alternative C2 due to potential impacts on important habitat for Dall sheep and caribou in the Dalton Utility Corridor from locatable mineral development (pg. S-31). * The economic analysis describes a serious cost …given the importance of subsistence in supporting rural livelihoods from food, shelter, heating and cultural systems, decreased access and abundance of subsistence would result in an increased reliance on markets to secure these resources, where there may be no suitable substitute (pg. S-32). * In summary, Alternative C2 will adversely impact fish, wildlife, outdoor recreationists, rural subsistence hunters and fishers, sport hunters and fishers, and the habitats of nearby National Wildlife Refuges, which will suffer from additional mineral development. The superficial economic analysis overvalues the future contribution of mining compared to the present and future values of tourism, subsistence, and outdoor recreation, including sport hunting and fishing.	Because this is a programmatic EIS on a plan, there is not information available regarding specific changes in recreation use levels and patterns. Without this information, the associated economic benefits cannot be calculated. Similarly, the BLM does not have any details about proposed mines that would be gained or lost under the plan, so cannot calculate information about jobs and income to compare to recreation jobs and income if it existed. In the future, when we evaluate specific projects and impacts, these are considerations that would be taken into account.
Paragi	Tom	No organization name	None	110	2	Social and Economic Conditions	212.0300.00	The economic analysis (Appendix S) seems to favor mining and motorized access. Alternatives B, C1, C2, and D would increase the area eligible for mining exploration and development. If mining or other development activity were to reduce habitat quality or quantity (by extension fish or wildlife abundance) or displace species through disturbance, it could plausibly reduce opportunity for wildlife tourism (viewing and hunting), particularly in presently accessible areas, and could require more fuel for greater travel distances by subsistence users to find resources. The mention of mining and tourism (page S-3) is a useful comparison for economic opportunities plausibly available within the planning area. Tourism broadly includes any sort of activity by non-local people. Tourist traffic, including motorcyclists and bicyclists, has been increasing steadily since the Dalton Highway was opened to the public in 1994 (http://dot.alaska.gov/highways/dalton/). Information I obtained from BLM shows how public use of the Dalton Highway has been increasing during 1989-2019, with expected annual variation due to economic factors, facility maintenance, etc. (figure pasted below[see full comment submission for figure]) BLM should obtain economic comparisons of tourism and mining in the planning area. At the statewide level, an economic study commissioned by the Alaska Department of Fish and Game (http://www.adfg.alaska.gov/index.cfm?adfg=ongoingissues.economicstudy) showed how persons involved in hunting and view of wildlife contributed $3.4 billion to the Alaska economy in 2011. The McDowell Group published a study of the visitor industry (https://www.mcdowellgroup.net/wp-content/uploads/2018/11/visitor-impacts-2016-17-report.pdf) that listed for 2017 the industry providing 43,300 jobs, $1.5 billion in labor income, and $4.5 billion in economic output. In comparison, the McDowell Group also produced a summary of the economic benefits of mining (https://www.mcdowellgroup.net/wp-content/uploads/2018/06/miningsummaryonline4_9.pdf) that listed for 2017 the industry providing 9000 direct and indirect jobs, $0.7 billion in direct and indirect payroll, and $2.8 billion in revenues, procurements, spending on developments and exploration, and export revenue. The reports do not break down the proportion of jobs and revenues in the planning area, but none of the large mines highlighted in the report are in the planning area.	Because this is an RMP, there is not information available regarding specific changes in recreation use levels and patterns. Without this information, the associated economic benefits cannot be calculated. Similarly, the BLM does not have any details about proposed mines that would be gained or lost under the plan, so cannot calculate information about jobs and income to compare to recreation jobs and income if it existed. In the future, when we evaluate specific projects and impacts, these are considerations that would be taken into account.

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Schutt	Aaron	Doyon Limited	None	173	1	Social and Economic Conditions	212.0300.00	Connectivity in Rural America: Leveraging Public Lands for Broadband Infrastructure (DOI July 2018), p. 6. With the advent of the COVID-19 pandemic, the closing down of communities and Alaska Native Villages to non-residents, and the transition to online education and employment, the challenges associated with the lack of broadband infrastructure in the Doyon Region have never been so pronounced. The Alaska Native communities in the Doyon Region must be able to connect to our global communications infrastructure in an immediate and affordable way. Implications of plan stipulations and management direction, which also include rightof- way ("ROW") exclusion and avoidance areas, connectivity corridors, and other elements of the various action alternatives included in the Draft RMP, also extend to other communications, electric transmission, and other infrastructure activities. The planning decisions made in BLM's development of the final RMP should not deprive Doyon's Alaska Native shareholders and other rural Alaskans of the opportunity to have these basic human necessities, which are critically important to energizing commerce, improving public health and safety, and enriching lives.	BLM guidance for land use planning defines ROW avoidance and exclusion designations as inclusive of all land use authorizations, not just ROW permits (See Table 2-21 in Chapter 2 and Section 3.3.2 of Chapter 3). Alternative E, developed from the range of alternatives in the Draft RMP/EIS, would designate the CAMA WSA (as under Alternative A), hot springs (which have minimal acres), and the Sulukna River ACEC as ROW exclusion. Unless specific lands are designated as ROW exclusion areas, area of critical environmental concern (ACEC) designations would not prevent or preclude authorized access to adjacent lands not managed by BLM. No measures in Alternative E of the Proposed RMP/Final EIS specifically preclude development of broadband infrastructure or generally preclude any authorized access under ANILCA. ROW avoidance areas within ACECs are areas that would be available for authorized activities that may entail special stipulations or consideration of other site-specific alternatives to protect identified R&I values for the subject ACEC(s) involved. The BLM would work with any project proponent to design a project plan in ROW avoidance areas that meets the proponent's needs and protects R&I ACEC values. Proposals for microwave towers or other infrastructure on BLM-managed lands would need to undergo project-specific NEPA analysis.
Schutt	Aaron	Doyon Limited	None	173	17	Social and Economic Conditions	212.0300.00	Mineral development in some of these areas is enormously important to Doyon's economic development potential. For instance, Doyon selected certain lands in the vicinity of Wiseman under ANCSA for their mineral development potential. As the U.S. Court of Appeals for the Ninth Circuit has stated, "we have no doubt that Congress intended . . . that those Native corporations that did select land for its economic potential would be able to develop that land and to realize that potential." Koniag, Inc. vs. Koncor Forest Resource Management Company et al., 39 F.3d 991 (9th Cir. 1994). BLM must avoid, as contrary to ANCSA, land management planning actions that would deprive Doyon of its ability to realize that potential.	The EIS describes the land and development potential available to mineral entry under the alternatives, and discloses that there would be economic benefit tied to mineral development. No BLM management under any alternative considered here, including designation of ROW exclusion and avoidance areas, would preclude the application of ANILCA sections 811, 1110(b), or 1323(b) rights of access.
Schutt	Aaron	Doyon Limited	None	173	29	Social and Economic Conditions	212.0300.00	As noted in the Draft RMP, "FLPMA ROW exclusion and avoidance areas could limit economic opportunities and preclude the BLM from accommodating future ROW (linear, communication, Mineral Leasing Act, FLPMA permit, and lease demands." Draft RMP, p. 3-103. As DOI recognized in its 2018 report, Supporting Broadband Tower Facilities in Rural America on Federal Properties Managed by the Department of the Interior, for example, ROW exclusion and avoidance areas, particularly in areas like the Planning Area where "many Alaskan villages remain surrounded by public lands," could severely restrict or prevent broadband infrastructure deployment. Connectivity in Rural America: Leveraging Public Lands for Broadband Infrastructure (DOI July 2018), p. 6. Other efforts to enhance the connectivity of rural areas, such as the siting and deployment of power lines and communications towers, would face similar obstacles-with such efforts either being prohibited outright or rendered infeasible by the permitting obstacles set up by such restrictions. The Draft RMP generally overlooks these impacts.	Alternative E excludes ROWs from CAMA WSA, the same as Alternative A, hot springs (which have minimal acres), and the Sulukna River ACEC. Unless specific lands are designated as ROW exclusion areas, area of critical environmental concern (ACEC) designations would not prevent or preclude authorized access to adjacent lands not managed by BLM. Additionally, ACEC designations would not prevent any authorized access under section 1323(b) of the ANILCA. ROW avoidance areas within ACECs are areas that would be available for authorized activities that may entail special stipulations or consideration of other site-specific alternatives to protect identified R&I values for the subject ACEC(s) involved. The BLM would work with any project proponent to design a project plan in ROW avoidance areas that meets the proponent's needs and protects R&I ACEC values. Proposals for microwave towers or other infrastructure on BLM-managed lands would need to undergo project-specific NEPA analysis.
Kenning	Erik	Arctic Slope Regional Corporation	None	187	6	Social and Economic Conditions	212.0300.00	We also want BLM to recognize that possible development in an area can create economic opportunities for allotment owners through leasing acreage or developing their own business on an allotment if they so choose. BLM should be careful not to place erroneous restrictions on lands surrounding privately owned allotments that would prevent the utilization of an allotment in this manner. These opportunities provide an avenue for allotment owners and their families to have both long-term and stable economic benefits. ASRC also supports the Alaska Native Veterans and their ability apply for allotments. ASRC feels strongly that these veterans should be provided the opportunity to select from as much BLM land as possible.	Alternative E attempts to strike a balance between resource protection and resource development. As pertains directly to the veterans, the Proposed RMP/Final EIS would recommend to the Secretary to open the maximum possible acreage within the Central Yukon planning area to selection under the Dingell Act. In addition to alternatives that consider more opportunities for State or Native selection, the BLM and the Proposed RMP/Final EIS would continue to provide access to non federally owned land surrounded by public lands as per ANILCA Section 1323(b).
Crockett	Deantha	Alaska Miners Association	None	199	88	Social and Economic Conditions	212.0300.00	Mineral development projects in the planning area have the potential to provide significant and often unique economic and social development opportunities. Such opportunities are especially important to Alaska Natives. The benefits can extend well beyond employment and revenues directly associated with these mineral projects themselves but also give the people of the region the resources necessary to pursue their traditional lifestyles as well as potential use of shared infrastructure. We do not believe that the EIS provides a fulsome and complete discussion of how each alternative could impact how people might or might not be able to realize these opportunities. Denial of such benefits could, in many ways, directly conflict with the environmental and social justice mandates that are being advanced by the Biden Administration.	Each alternative describes the lands and development potential available to mineral entry, and notes that there is economic benefit tied to mineral development.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	14	Social and Economic Conditions	212.0300.00	In addition, the Corridor provides the public with a long list of beneficial services ranging from the nationally and internationally-recognized recreation and visitor services; outstanding scenic values; protections afforded to resources which meet the criteria to be designated as no less than 12 Areas of Critical Environmental Concern (ACEC) opportunities for remote backcountry experiences in a setting that meets the criteria to be listed as lands with wilderness characteristics; benefits for rural communities regarding access to subsistence resources; economic opportunities expressed in terms of locatable mineral mining and natural gas development; and management recognition provided to vital connectivity corridors between four federal Conservation System Units which further expand the public services provided by the retained federal management of this Corridor.	The Draft RMP/EIS recognizes the benefits of the Dalton Corridor. **Appendix K**, Recreation Management Areas and Backcountry Conservation Areas, describes how the alternatives propose to manage recreation and visitor services, and in doing so, describes recreation activates, visitor experiences, and benefits. **Appendix S**, Social and Economic Conditions, describes the nature and types of socioeconomic impacts, including abundant subsistence resources to greater economic development. The conclusions section of this appendix describes the economic impacts from each alternative.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	16	Social and Economic Conditions	212.0300.00	If PLO 5150 is revoked (partial or full) and the lands are allowed to be transferred to the State, the public would lose the following beneficial values, services and programs they are now provided under federal management of the land: Recreation and Visitor Services a. The nationally and internationally-recognized Arctic Interagency Visitor Center, provided by BLM, the Park Service and the Fish and Wildlife Service, would be potentially lost. i. 15,000 users including local Alaskans, national and international visitors were recorded in one season. Recreational activities included sight-seeing tours, backcountry travel, camping, berry picking, river trips, day hikes and hunting. ii. The Corridor is also hugely popular with winter visitors, some of which primarily visit to view the Aurora and others for backcountry winter excursions; 2. Scenic Values and Wilderness backcountry experience a. As the Corridor mineral withdrawal is lifted Scenic values and wilderness-like backcountry experiences would be expected to be lost or degraded due to increased development within the corridor, associated infrastructure and roads, and the foreseeable expansion of additional public OHV access; 3. Although lands in the outer Corridor are not managed for Lands with Wilderness Characteristics, lands with wilderness characteristics exist within the corridor and could be irrevocably lost if conveyed to the State; 4. Twelve potential ACECs (54% of the Corridor), which were found to meet the relevant and importance criteria, would no longer be given priority for designation or protection as mandated under FLPMA; 5. High value watersheds would no longer be managed to protect their values; 6. Ecological Benchmarks a. A portion of the benchmark that buffers the upper headwaters of Kanuti National Wildlife Refuge would be conveyed to the state if the PLO were revoked; 7. Management emphasis aimed at recognition of the connectivity corridors would no longer be ensured thereby undermining USFWS' ability to provide the beneficial refuge purposes outlined in ANILCA; 8. Big game hunting opportunities for both State and non-resident hunters could be impacted if development degrades the backcountry wilderness experience; 9. Subsistence opportunity for the local residents of Stevens Village, Coldfoot and Wiseman would be reduced due to competition for resources with sport hunters and loss of subsistence priority within the Corridor	The alternatives analysis describes the effects of revoking PLO 5150. The previously undescribed effect on potential ACECs found to meet the relevant and importance criteria and no longer be given priority for designation or protection as mandated under FLPMA has been incorporated into Section 3.4.1. The Proposed Plan in the Proposed RMP/Final EIS would not make a recommendation to revoke PLO 5150.

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Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	51	Social and Economic Conditions	209.0202.00	The DEIS does not include the projected economic impact of revoking PLO 5150 on BLM permit holders or small businesses that depend on the continued management of the outer Dalton Corridor by the BLM. We urge the BLM to consider these impacts during the plan revisions.	While the RMP/EIS does not include a detailed projection of the economic impact of revoking PLO 5150 on specific BLM permit holders or small businesses that depend on the continued management of the outer Dalton Corridor by the BLM, the economic impacts of the recommended revocations are analyzed in Section 3.5.3 and Appendix S of the RMP/EIS, including impacts on the economy as they relate to recreation and resource development.
Groenke	Jeffery	No organization name	None	29	1	Soil Resources	208.0200.00	one of my first concerns would be the environmental consideration that has not yet been stated anywhere in the EIS, and that's addressing the structural integrity that would potentially have to accommodate an exponential increase of road traffic along the Dalton corridor, which all would have to cross on the E.L. Patton Bridge, the only bridge crossing the Yukon River, the fifth largest river system in the United States. It has not been adequately studied to prove, without any measurable doubt, that the landslide that begins not 350 feet away from the highest point of the beginning of the bridge, as measured by DOT as far back as 2016, 2015, has not and will not continue to affect the already compromised, and still continually sloughing hillside.	Potential impacts to E.L. Patton Bridge is not within the scope of this analysis as a site-specific review.
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	10	Soil Resources	208.0200.00	The planning area contains both large expanses and small, dispersed occurrences of soils that are classified as thaw-sensitive, and the draft EIS states that "[t]he magnitude and scope of climate change effects on soil resources in the planning area are expected to be widespread, with potentially greater impacts than from all the other resource programs or permitted activities." It will consequently be critical that future resource uses in the planning area minimize impacts to thaw-sensitive permafrost soil areas, in order to reduce potential cumulative effects to this sensitive resource. We support the inclusion of SOP SOI-11, which requires future activities to "[a]void disturbance of the vegetation mat and permafrost soil areas whenever feasible." Providing additional specificity in this SOP would help to further emphasize the importance of protecting thaw-sensitive areas. Recommendations for the FEIS: To enhance protection of thaw-sensitive areas: * Separate requirements regarding disturbance of the vegetation mat and permafrost soils into two sub-topics of the SOP; and * Provide additional details regarding methods that should be used to avoid disturbance. For example, include text similar to SOP Soils-25 from the Bering Sea Western Interior RMP.	The BLM updated the SOP SOI-7 with more detailed information from the Bering Sea Western Interior RMP.
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	11	Soil Resources	208.0200.00	The analysis of impacts to soil resources describes impacts that would be anticipated from placer mining operations but does not include discussion of potential impacts to soil resources from a large locatable minerals mine. While impacts to soil resources from a locatable minerals mine would have many similarities to impacts described for placer mining, impacts would be of a greater magnitude and longer duration, as well as including additional concerns associated with mine site operations, mined material handling and storage, road construction, etc. Recommendation for the FEIS: Include analysis of potential impacts to soil resources from a large-scale locatable minerals mining operation.	Currently, there are no large, locatable mines within the Central Yukon Field Office. The Draft RMP/EIS analyzed the impacts of current placer mines that exist in the field office along with a description of areas open to development under each alternative. Text was added to the Proposed RMP/Final EIS that any proposed locatable mine would be subject to NEPA analysis, and any impacts would be identified and analyzed at that point.
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	18	Soil Resources	208.0200.00	According to the draft EIS, "[s]oils in the planing area are characterized as thin, fragile, and prone to erosion." As previously discussed, thaw-sensitive soils are also present throughout the planning area. OHV use in sensitive soil areas can cause soil erosion, resulting in degraded water quality and watershed condition. Map 3.8 Watershed Condition identifies watersheds as "functioning properly," "functioning at risk," or "impaired function" based upon the BLM's Watershed Condition Model, which is an indicator for human influence on watersheds. We understand that the RMP will establish interim management prescriptions for OHV use, and a supplemental rule process will be conducted following the record of decision to develop a travel management plan for each Travel Management Area. We support reasonable restrictions on OHV use in watersheds that are already in degraded or impaired condition, including seasonal restrictions to reduce the potential for soil erosion. Recommendation for the FEIS: During travel management planning, consider whether additional restrictions on OHV use are necessary to protect watershed condition in watersheds that are currently identified as "functioning at risk" or "impaired function" in Map 3.8.	The RMP/EIS evaluated potential impacts to high-value watersheds from OHV travel under all alternatives. Additional OHV travel limitations in "functioning at risk" or "impaired function" watersheds is not part of the RMP/EIS analysis. Site-specific travel management planning would be the appropriate means for addressing specific impacts to these areas.
Costello	Naomi	Evansville Tribal Council	None	107	28	Soil Resources	208.0200.00	There is currently no requirement to protect permafrost. There should be a requirement for adequate insulation to be used under any structure and for monitoring and mitigation to address permafrost damage.	SOP SOI-11 states that all activities would avoid disturbance of permafrost soils whenever possible. Additional BMPs could be implemented when individual projects are analyzed.
Gestring	Bonnie	Earthworks	None	146	11	Soil Resources	208.0200.00	In November 2018, the U.S Geological Survey published a report on GHG emission sinks on federal lands in the U.S, which determined that the amount of carbon stored on federal lands in Alaska was approximately 62 percent of the total carbon stored on all federal lands in the U.S. (DEIS, p. 3-11) According to the DEIS (p. 3-11), when ecosystem respiration, land use and land cover, and disturbances were considered, Alaska was the third largest net sink of carbon on federal lands, sequestering 18 MMT CO2e per year. Broad conservation measures within the CYRMP offer the Interior Department an essential opportunity to advance the President's Executive Order from January 27, 2021 to protect at least 30 percent of its land by 2030 and to combat climate change by focusing conservation efforts on public lands that serve as an important net sink of carbon. These lands are particularly essential in the effort to combat climate change, given the rapid loss of permafrost, and the role that it plays in accelerating atmospheric warming. As noted in the DEIS (p. 3-12), "The complex interactions of climate warming and permafrost thawing contribute to a feedback loop, whereby warming causes permafrost to thaw and release large amounts of stored carbon; this in turn leads to more warming (Fresco et al. 2016)." Management efforts should focus on maintaining vegetative cover and reducing the rate of permafrost thaw.	SOP SOI-11 states that all activities would avoid disturbance of permafrost soils whenever possible. Additional BMPs could be implemented when individual projects are analyzed.
Gestring	Bonnie	Earthworks	None	146	16	Soil Resources	208.0200.00	USGS-led research has found that permafrost loss due to a rapidly warming Alaska is leading to significant changes in the freshwater chemistry and hydrology of the Yukon River Basin.13 The study found that the Yukon River and one of its major tributaries, the Tanana River, have experienced significant increases in calcium, magnesium and sulfates. The DEIS should also consider the direct, indirect and cumulative effects to water quality from increased total dissolved solids resulting from the rapidly thawing permafrost, as recently highlighted in the watershed surrounding the Red Dog Mine. 14 13 R.C. Toohey, et. al., "Multidecadal increases in the Yukon River Basin of chemical fluxes as indicators of changing flowpaths, groundwater and permafrost., Geophysical Research Letters, Volume 43, Issue 23, 2016. https://doi.org/10.1002/2016GL070817 https://www.usgs.gov/news/permafrost-loss-dramatically-changes-yukon-river-chemistry-and-hydrology-potential-global 14 KTOO, "As Arctic warming accelerates, permafrost thaw hits Red Dog mine with $20 million bill," September 1, 2020. https://www.ktoo.org/2020/09/01/as-arctic-warming-accelerates-permafrost-thaw-hits-red-dog-mine-with-20-millionbill/#:~:text=Energy%20%26%20Mining%20%7C%20Northwest%20,As%20Arctic%20warming%20accelerates%2C%20permafrost%20thaw%20hits%20Red,mine%20with%20%2420%20million%20bill&text=The%20multinational%20company%20that%20operates,its%20water%20storage%20and%20discharge	The BLM added this statement to climate change section: "Studies from the Yukon River Basin indicate an increase of total dissolved solids over the past three decades likely from increased weathering due to widespread permafrost degradation that may affect water quality in the planning area (Toohey et al. 2016)."
Gestring	Bonnie	Earthworks	None	146	22	Soil Resources	208.0200.00	The DEIS should incorporate the increased rate of erosion and sedimentation identified in the Yukon as a result of climate change. A recent study concludes that increased cold season discharge and earlier freshet that occurs under warmer conditions enhance riverbank erosion in most areas.27 Climate-related changes to fluvial dynamics may impact communities through effects on infrastructure, travel safety, channel navigability, fish and wildlife habitat, and access to subsistence resources. 27 Brown, et al., "Implications of climate variability and changing seasonal hydrology for subarctic riverbank erosion." Climate Change 162, 1-20 (2020) https://link.springer.com/article/10.1007/s10584-020-02748-9	The EIS states that continued thawing of permafrost is expected as a result of climate change with the formation of thermokarst topography in areas if ice rich permafrost thaw.

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Gestring	Bonnie	Earthworks	None	146	27	Soil Resources	208.0200.00	Alternative B and C1 recommend that the management plan close lands to nonenergy solid leasable mineral leasing and development on slopes greater than 35 percent to protect soils, and apply NSO stipulations to fluid mineral leases on sensitive soils in high value watersheds. (DEIS. p. 2-20). We recommend that the BLM also adopt similar stipulations for locatable mineral activities on slopes greater than 35 percent in high value watersheds for the same reasons. (DEIS, p. 2-20)	The BLM added this statement to climate change section: "Changes to hydrologic regime including earlier spring breakup and increased streamflow in the fall and winter could lead to increased riverbank erosion (Brown et al. 2020)."
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	4	Soil Resources	208.0200.00	F.2.2 Soils (SO1). In SOP SOI-12 they are recommending use of a "protective cover" over "long-term" storage of stockpiles. Both "protective cover" and "long-term" are not defined. It is quite common that stockpiled organic material has enough organic material to be stable without any additional cover. A "protective cover" should not be a stipulation in an RMP but rather should be left to the discretion of the Authorizing Officer (AO). In SOP-SOI-13, for slopes greater than 3:1 BLM is requiring that the sites be properly surveyed and designed by an engineer registered in Alaska. For an engineer to have the information he would need for site specific designs on slopes greater than 3:1 he would likely have to make a site visit. If the site is remote and only accessible during the mining season, then the information would have to be obtained the previous mine season to get it in the most current mine plan. Many of these operators are experienced enough that they should be allowed to submit their own erosion control strategy and topsoil segregation/restoration plan for approval from the authorizing officer without an engineer stamp.	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
West	Jeri	Alyeska Pipeline Service Company	None	196	6	Soil Resources	208.0200.00	SOP S01-6 A clarifying sentence reading, "this SOP does not apply to snow and ice ramps which do not span the entire river" should be added as a second sentence. Ramps are typically designed to not interfere with breakup flow, and there are situations where the impact of returning to the ramp with heavy equipment to remove or slot it would expose the environment and habitat to potentially greater adverse effects.	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance. The SOP states that the bridges will be removed, breached, or slotted. Not the ramps.
West	Jeri	Alyeska Pipeline Service Company	None	196	7	Soil Resources	208.0200.00	SOP S01-7 The phrase "or protected with such measures as placing equipment mats, geofabric with temporary gravel fill, and other surface-protection methods" should be added to the end of the first sentence of the second bullet. Allowing summer travel with protective measures across wetlands may have the least potential impact to habitat and the environment.	Other techniques are incorporated in bullet 4. See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
West	Jeri	Alyeska Pipeline Service Company	None	196	8	Soil Resources	208.0200.00	SOP S01-12 The proposed procedure should not be applied universally and should clarify that it does not apply to aggregate material stockpiles. Such practice is only justified in particular circumstances where site characteristics and topography, particle size, and distance to waterbody are a factor and other types of sediment and erosion control cannot be employed.	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
West	Jeri	Alyeska Pipeline Service Company	None	196	9	Soil Resources	208.0200.00	SOP S01-13 The SOP is both vague and overly prescriptive, and it should be deleted. Alyeska routinely conducts maintenance within the disturbed area footprint along TAPS following the TAPS Design Basis, standardized maintenance manuals, and other standard engineering practices to avoid undue erosion and other surface damage. In most cases, an additional engineering review is unwarranted	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
Crockett	Deantha	Alaska Miners Association	None	199	55	Soil Resources	208.0200.00	F.2.2 Soils (SOI). Most of the items in SOP SOI-1 thru 11 are already practiced by most miners in some form. In SOP SOI-12 it doesn't define "long-term" storage of stockpiles. And they are recommending use of a "protective cover". Most stockpiled organic material has enough organic material to not require any additional cover. It shouldn't be required but rather left to the discretion of the AO. In SOP-SOI-13, for slopes greater than 3:1 BOM is requiring that the sites are properly surveyed and designed by an engineer registered in Alaska. This requirement should be deleted as it is not feasible for small remote mining operators that would have to bring an engineer in a year in advance to get the information that the engineer would need since remote sites are usually only accessible during the mining season. Many of these operators are experienced enough that they should be allowed to submit their own erosion control strategy and topsoil segregation/restoration plan without an engineer stamp for consideration.	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	37	Soil Resources	208.0200.00	There is currently no requirement to protect permafrost. There should be a requirement for adequate insulation to be used under any structure and for monitoring and mitigation to address permafrost damage.	SOP SOI-11 states that all activities would avoid disturbance of permafrost soils whenever possible. Additional BMPs could be implemented when individual projects are analyzed.
Crockett	Deantha	Alaska Miners Association	None	199	84	Solid leasables	209.0301.00	N.5 Coal. Section N.5 discusses coal resources and potential. Page N-10 refers reader to Map N4 for development potential, and Map N5 for location of coal basins. These 2 maps are reversed - N4 is coal basins, and N-5 is potential, both without sources shown for the data (locations) or the interpretation of potential. The over-brief (half page) discussion of coal refers to basin names, locations and quality, and interprets development potential for coal, yet contains not a SINGLE bibliographic reference to where this information is obtained. Unsurprisingly "no mining" is anticipated in any area. Confusingly, in the main text, coal is referred to in both Table 2-22 as a "fluid" leasable mineral, and in Table 2-23 as a "nonenergy" solid leasable mineral. Both of these are incorrect.	Thank you for your comment, the reversed maps and Table 2-23 have been corrected. As noted on the maps, the original data were compiled from various sources, and references to sources of information are added as appropriate. Table 2-22 refers to coal bed natural gas (coal bed methane) which is managed as a fluid leasable mineral, as opposed to solid coal which is managed as a solid leasable mineral.
Mayo	Randy	No organization name	None	30	1	Subsistence	212.0200.00	as a member of the Stevens Village tribe, we rely heavily on the Dall River for subsistence and a transportation corridor to get to key hunting and fishing areas within our traditional lands. And pretty concerned that, ultimately, since the area would be -- is identified as potentially high locatable mineral area up in the head waters there within the corridor, that concerned about environmental -- potential environmental degradation and from resource development that may take place, ultimately. That would be a detriment to the clean water that we need and that Dall River watershed.	BLM recognizes the importance of the Dall River and the surrounding watershed to the traditional land use of Stevens Village. Alternative E, the Proposed Plan, was developed from the range of alternatives, and development took the expressed concerns into account. Highly relevant to the locatable mineral potential and future resource development in the area around the Dall River, Alternative E would not recommend revocation of the PLO 5150 withdrawal and would recommend partial revocation of 11.1 million acres of ANCSA 17(d)(1) withdrawals to only allow for Native Alaskan allotment selection by Vietnam-era veterans.
Mayo	Randy	No organization name	None	39	1	Subsistence	212.0200.00	But, you know, one of my comments is that the miss in information on the section -- the ANILCA subsistence 810 section of the document mention that there would be no significant impacts to the community of Stevens Village. And throughout the years, since the opening of the Haul Road, that, you know, we -- our use area has been heavily been impacted; you know, the Dall River watershed is a key use area. There are quite a few Native allotments, and those allotments are there as places where people made a living. So we would like that through our land use plan to be taken into full consideration. Also, within the land use plan, the ethnogeographic place name maps that point out the key use areas and other cultural resource areas.	BLM reviewed non-BLM land use plans (state, municipal, and tribal) including the 1991 Comprehensive Land Use Plan For The Traditional Lands of Stevens Village in the development of this RMP. The BLM added references to this plan in **Appendix D**, **Appendix R**, and **Appendix Q**. The intersection of the western zone of the Stevens Village customary and traditional use area with PLO 5150, in context of the recommended revocation of the PLO 5150, was added to analysis in Chapter 3 (Section 3.5.2, Subsistence). The Proposed Plan, Alternative E, was developed in consideration of these concerns and makes no recommendation for the revocation of Public Land Order 5150. Ethnogeography place names are incomplete information that were not available at the time of publication of the Proposed RMP/Final EIS. And in some cases ethnogeography place names are sensitive information that could lead to the locations of sensitive cultural resources. The BLM does not want to disclose sensitive information.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	24	Subsistence	212.0200.00	The draft EIS identifies the preferred Alternative C2 as having fewer protections for subsistence resources than alternatives A, B, or C1. It is not clear from the document to what extent targeted protections in Alternative C2 address community-identified concerns or incorporate avoidance, minimization, or mitigation measures suggested by community members. EPA encourages decisions - and, where appropriate, measures and practices - that ensure that the significance and integrity of way-of-life activities will be maintained during the proposed activities. We find that these measures and practices are most implementable and beneficial when they are supported by robust, thorough, and deferential consultations. Recommendation for the FEIS: Disclose the extent to which the preferred alternative addresses community-identified concerns and incorporates community-identified measures to reduce those concerns. Incorporate additional protective measures, such as establishment of ACECs, into the preferred alternative where appropriate to reduce impacts on key subsistence resources.	The BLM has considered input from public comment periods, including ANILCA Section 810 hearings, in addition to input from cooperating agencies and tribes, and remains committed to addressing community identified concerns. The Proposed Plan, Alternative E, was developed in consideration of these concerns. Among other management that is responsive to concerns related to impacts on subsistence resources, Alternative E would establish right-of-way avoidance and exclusion areas, would designate 21 ACECs covering 3,611,000 acres. Alternative E recommends that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans where the PLOs currently do not allow for it.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	32	Subsistence	212.0200.00	The RMP/DEIS states: "The BLM-managed lands around Coldfoot and Wiseman contain the greatest concentrations of areas with medium to high locatable mineral potential; the abundance, availability, and access to subsistence users and resources could be affected by mineral development through disturbance, displacement, changes to subsistence access, and competition for resources" (USBLM 2020 CYRMP pg. 3-189); and, "Lands transferred to the State of Alaska would be unavailable for subsistence activities conducted under Title VIII of ANILCA. Though the State manages for subsistence on any lands that may be conveyed, it does not have a rural preference and those federally qualified subsistence hunters that have a federal preference for access and harvest type would no longer have that preference" (USBLM 2020 CYRMP pg. 3-190). We encourage the BLM to work with ADFG and the Federal Subsistence Board to avoid actions that may unnecessarily and further complicate moose harvest management. We did not find a sufficiently thorough discussion of how BLMs proposed significant changes in land tenure could affect the complexity of moose hunting regulations causing an even more challenging situation to other managers (particularly to USFWS for subsistence, and ADFG for all other regulatory issues, and see Realty section, below). This aspect must be addressed in the final RMP/FEIS.	BLM has taken this recommendation into consideration and desires to avoid actions that may unnecessarily and further complicate subsistence resource management. **Appendix Q**, Subsistence, addresses locatable mineral potential and Anadromous Waters Catalog (AWC)-listed streams, and in the Energy and Mineral Management Decisions section including caribou.
Raskin	David	Friends of Alaska National Wildlife Refuges	None	88	8	Subsistence	212.0200.00	Allocation alternatives in the RMP/DEIS recommend revoking PLO 5150, but we support the Alternative A aspect of no revocation. All RMP/DEIS action alternatives revoke the PLO 5150 land withdrawal in the outer corridor of the TAPS/Dalton Highway, which would complicate an already complex regulatory environment for hunters. The revocation would have a negative effect on subsistence hunters by eliminating their priority opportunity if State of Alaska priority 1 top-filings are conveyed. There would also be increased pressure for the State to allow ATVs and snowmobiles. Increased hunting pressure would lead to over-harvest as State and Federal regulators often react too slowly and delay population recovery	BLM has taken a large amount of input from interested parties into consideration. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of stakeholder input. Most relevant to this comment, Alternative E does not recommend revoking PLO 5150.
Little	Suzanne	The Pew Charitable Trusts	None	98	3	Subsistence	212.0200.00	In Alaska, the federal government is required to conduct an additional subsistence hearing, as required under ANILCA Section 810, to solicit testimony on how people's lives would be affected by the plan's verified impacts to subsistence resources. In the public hearing, BLM announced the "ANILCA 810 Hearings" and emphasized that it is important to hear from people, but the agency failed to communicate what specific information it was seeking. Additionally, BLM's ANILCA 810 public hearings were poorly administered. BLM should re-do ANILCA 810 public hearings.	The BLM has been and remains committed to fulfilling the responsibility under ANICLA Section 810 to adequately inform subsistence users of the effects on them under the RMP and consider their comments. The public hearings on January 28 through February 4, 2021, were held with adequate advance notice, and input from these meetings was considered during the planning process.
Brower	Charlie	North Slope Subsistence Regional Advisory Council	None	99	1	Subsistence	212.0200.00	I write to you on behalf of the North Slope Subsistence Regional Advisory Council (Council) which is submitting comments expressing its opposition to the current Central Yukon Draft Resource Management Plan/Environmental Impact Statement (CYRMP/EIS) and request additional Alaska National Interest Lands Conservation Act (ANILCA) 810 Hearings. The Council believes that along with legal issues with the Bureau of Land Management's (BLM) Preferred Alternative C2, there are process issues in violation of ANILCA, most notably the inability of rural communities to be actively engaged in a meaningful way in these land use management decisions.	The BLM has been and remains committed to fulfilling the responsibility under ANICLA Section 810 to adequately inform subsistence users of the effects on them under the RMP and consider their comments. The public hearings on January 28 through February 4, 2021, were held with adequate advance notice, and input from these meetings was considered during the planning process. BLM has taken a large amount of input from interested parties into consideration. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of input from interested parties, and incorporates many changes.
Williams	Frank	No organization name	None	101	2	Subsistence	212.0200.00	Land management within the Dalton Highway corridor should NOT be turned over to the State of Alaska. The people of this region would lose their federally protected subsistence hunting rights along the corridor if this land management transfer were to take place.	BLM has taken a large amount of input from interested parties into consideration. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of stakeholder input. Most relevant to this comment, Alternative E does not recommend revoking PLO 5150.
Costello	Naomi	Evansville Tribal Council	None	107	3	Subsistence	212.0200.00	BLM's own analysis demonstrates that tribes in the TCC region are unlikely to benefit from potential positive economic impacts offered by resource development and more likely would experience disproportionate adverse impacts. Both "Alternative C2 and D would increase risk for rural subsistence communities due to effects on subsistence access."4 4 DEIS 3-206. Under C2 and D, some planning area communities "may experience an increased cost of living and a heightened risk of food insecurity due to impacts to subsistence resources, constituting a disproportionate, negative impact."5 5 DEIS 3-180, see also DEIS 3-204. The region is already suffering food insecurity challenges resulting from access, user conflicts, competition, habitat changes and reduced abundance, particularly of Yukon River salmon.	BLM listened to the public comments, especially from within the communities, and adjusted its analysis based on the input it received. ANILCA public hearings were held virtually via Zoom on January 28, February 4, and February 9, 2021. The hearings provided an opportunity for testimony to residents of the potentially affected communities of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Coldfoot, Evansville, and Wiseman, as well as other communities throughout the planning area. Feedback received during the ANILCA 810 hearings, along with consideration of public comments, and further consideration of impacts to environmental justice communities documented in the RMP/EIS (Section 3.5.1) led to modifications of findings for some alternatives to more accurately depict impacts from RMP alternatives in this analysis. The Proposed RMP/Final EIS, Chapter 3 Social and Economic Conditions, Alternatives C2 and D as the most likely to have an increased risk of food insecurity due to impacts on subsistence resources. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of this input. Most relevant to this comment, Alternative E does not recommend revoking PLO 5150.
Costello	Naomi	Evansville Tribal Council	None	107	14	Subsistence	212.0200.00	The findings that there are no significant impacts under ANILCA 810 (28) is dubious and may be the weakest concluding evaluation of any section of the interdisciplinary analysis of the draft RMP. A conclusion of no significant impact directly contradicts findings in Appendix Q and environmental justice analysis which found that for alternatives C2 and D, subsistence resources would continue to degrade and federally qualified subsistence users would face increased competition for resources. There is no question that revocation of PLO 5150 and a jurisdictional transfer to the State of Alaska would have a major impact to federally qualified users. This subject has been previously discussed and debated in federal and state game hearing since the construction of TAPS and local users have been steadfast in their view that increased access will be detrimental to wild food resources and the habitat that supports wild food economies. We understand that the subsistence analysis in Appendix Q is broader than the ANILCA analysis, which is limited in scope to abundance, availability, and access. Our interpretation of the analysis and conclusions imply a broader impact. Appendix Q suggests that subsistence resources and access will be reduced, and the foreseeable reduction of access to those resources are applicable to a broader demographic of subsistence users than only Wiseman and Coldfoot, the two small non-Native communities along the Dalton Highway. 28 See DEIS R-15 (C2) and R-17 (D). 29 DEIS 380, 381, Q-76, Q-77	Thank you for pointing out an inconsistency between the Draft RMP/EIS and 810 evaluation. This inconsistency has been fixed in the Proposed RMP/Final EIS. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of stakeholder input. Most relevant to this comment, Alternative E does not recommend revocation of PLO 5150.
Costello	Naomi	Evansville Tribal Council	None	107	24	Subsistence	212.0200.00	SOP SUB 1 & 2: Currently any kind of consultation or providing information to subsistence participants and affected communities is entirely optional. These provisions should be mandatory since further decisions may pose significant impacts to communities in the planning area. Further, BLM should provide for a Tribal Advisory Board akin to - that of NPRA with membership from residents of affected villages and full funding to participate in regular meetings.	Thank you for your input. While permittees would not always be required to provide information to and document consultation with potentially affected communities, neither would it be optional. As currently written the BLM authorizing officer would decide whether to require this of permittees, and this judgment would be based on the best available information, including input from potentially affected communities.
O'Reilly-Doyle	Kathleen	No organization name	None	112	9	Subsistence	212.0200.00	Land management within the Dalton Highway corridor should NOT be turned over to the State of Alaska. The people of this region would lose their federally protected subsistence hunting rights along the corridor if this land management transfer were to take place.	BLM has taken a large amount of input from interested parties into consideration. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of stakeholder input. Most relevant to this comment, Alternative E does not recommend revoking PLO 5150.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Teshima	Steven	No organization name	None	116	1	Subsistence	212.0200.00	It also assumes by limiting hunting by subsistence while allowing recreational hunting to continue would improve wildlife populations. I think it would make more sense for the state to limit recreational hunting because it's recreational and only allow for subsistence hunting because it's essential to everyone living in villages. Also, designating ACEC's for dall sheep sounds good on paper, but these areas are already managed as wilderness under the current management plan therefore the simple designation wouldn't have any affect on the sheep population level.	BLM has taken input from interested parties into consideration; however, it is important to note that how the State of Alaska manages hunting under its jurisdiction is outside the scope of this planning effort. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of stakeholder input. Alternative E does not recommend revoking PLO 5150, preserving federal subsistence oversight and it would designate 21 ACECs covering 3,611,000 acres including six ACECs designated in part to protect Dall Sheep habitat.
Sommer-Pedebone	Dena	Gana-A'Yoo, Limited	None	122	5	Subsistence	212.0200.00	BLM must ensure that its RMP is fully consistent with its obligations under ANILCA and that it ensures that Gana-A'Yoo will, throughout the duration of the plan, enjoy reasonable access over lands in the Planning. The RMP should appropriately address shareholder rights to access pursuant to Title XI and Section 1323(b) of ANILCA. In addition, the RMP should provide reasonable clarity and certainty for those who own land within the boundaries of the Planning Area, who require access across federal lands in the Planning Area to access, and whose planning decisions are dependent upon how the lands in the Planning Area are managed.	This important section of ANILCA has been added to discussion on access in the Proposed RMP/Final EIS in Appendix E (ANILCA Access); Section 2.1, Management Common to All Alternatives; and again in Chapter 3 under Lands and Realty and Utility Corridors. The Proposed RMP/Final EIS is compliant with BLM's obligations under Title XI and Section 1323(b) of ANILCA. Unless specific lands are designated as right-of-way (ROW) exclusion areas, areas of critical environmental concern (ACEC) designations would not prevent or preclude authorized access to adjacent lands not managed by BLM. Additionally, ACEC designations would not prevent any ROWs guaranteed under section 1323(b) of the ANILCA. ROW avoidance areas are areas that would be available for authorized activities that may entail special stipulations or consideration of other site-specific alternatives to protect identified R&I values for the subject ACEC(s) involved. The BLM would work with any project proponent to design a project plan in ROW avoidance areas that meets the proponent's needs and protects R&I ACEC values.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	24	Subsistence	212.0200.00	There is a similar lack of data to evaluate potential impacts on subsistence uses and resources. In the Draft RMP, the Bureau acknowledged that there is "limited data available for places or areas significant to and for subsistence use in the planning area."94 Despite recognizing the vital importance of subsistence to planning area Tribes and communities,95 the Bureau did not acquire the information necessary to adequately evaluate potential impacts. Rather, the Bureau primarily relied on data from the Alaska Department of Fish and Game (ADF&G), which the agency recognized was "limited in scope."96 The Bureau's own guidance acknowledges the inaccuracies of ADF&G harvest surveys, which "are often dated and may not accurately reflect current harvest levels" and are unable to account for "the inherent variability in subsistence systems."97 In addition, the Bureau's guidance recognizes that many rural residents do not participate in ADF&G surveys so the data collected "may not accurately report the actual harvests of rural communities."98 The Bureau's decision not to obtain essential information about cultural and subsistence resources falls short of its obligation to take a "hard look" at impacts to these resources, and in turn precludes the agency from adequately considering alternatives that would reduce adverse effects. 94 Draft RMP and EIS Appendix Q at Q-7. 95 See e.g., Draft RMP and EIS at 3-196 ("Given the importance of subsistence in supporting rural livelihoods, from food, shelter, heating, and cultural systems, any decrease in the ability to procure subsistence resources would have consequential impacts on communities in the planning area in affecting cost of living and risks to food security."). 96 Draft RMP and EIS Appendix Q at Q-7. 97 Bureau of Land Management, Instructions and Policy for Compliance with Section 810 the Alaska National Interest Lands Conservation Act, IM-AK-2011-008 App. 5 at 5-2 (2011). 98 Id.	In evaluating potential impacts under the different alternatives and in developing the Proposed Plan, Alternative E, the BLM utilized the best available information including input from consultation, public comments, ANILCA Section 810 hearings, and other land use plans such as A Comprehensive Land Use Plan For The Traditional Lands of Stevens Village (1991), in addition to Alaska Department of Fish and game subsistence surveys.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	27	Subsistence	212.0200.00	The Bureau completed the tier-I analysis as published in the Draft RMP. The Bureau included 24 communities in its analysis110 and found that Alternatives B, C1, C2, and D, in conjunction with the cumulative case, may significantly restrict subsistence uses for some communities in the planning area.111 The agency determined that the cumulative case may significantly restrict subsistence uses for the communities of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Coldfoot, Evansville and Wiseman "due to potential reductions in the abundance, availability, and access to large mammals, fish, furbearers, firewood, and berries."112 The agency stated that it would give the required notice and hold § 810 hearings in those potentially affected communities.113 However, the Bureau also concluded that neither the preferred alternative nor the cumulative impacts would significantly restrict subsistence uses for Alatna, Allakaket, Anaktuvuk Pass, Arctic Village, Galena, Hughes, Huslia, Kaltag, Koyukuk, Lake Minchumina, Manley Hot Springs, Minto, Nenana, Nuiqsut, Nulato, Rampart, Ruby, Stevens Village, Tanana, or Venetie.114 As a result, these communities did not receive the same notice or opportunity to respond to the § 810 findings. But, as explained below, the agency's evaluation of the potential impacts on subsistence uses in those communities was flawed and there is potential for significant restriction of subsistence uses for members of those communities. 110 Draft RMP and EIS Appendix Q at Q-1. 111 Draft RMP and EIS Appendix R at R-20. 112 Id. at R-19 to R-20. 113 Id. at R-20. 114 Id. at R-15.	Thank you for pointing out inconsistencies with the Draft RMP/EIS and 810 evaluation. Not only has this inconsistency been fixed in the Proposed RMP/Final EIS, but Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of stakeholder input. Most relevant to this comment, Alternative E does not recommend revocation of PLO 5150. The BLM has been and remains committed to fulfilling the responsibility under ANICLA Section 810 to adequately inform subsistence users of the effects on them under the RMP and consider their comments. The public hearings on January 28 through February 4, 2021, were held with adequate advance notice, and input from these meetings was considered during the planning process.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	28	Subsistence	212.0200.00	In the Draft RMP, the Bureau wrongly concluded that neither the preferred alternative nor the cumulative case would significantly restrict subsistence uses for most communities in the planning area. An alternative significantly restricts subsistence if, after consideration of protective measures, "it can be expected to result in a substantial reduction in the opportunity to continue subsistence use of resources."115 "Substantial reductions are generally caused by large reductions in resource, abundance, a major redistribution of resources, extensive interference with access, or major increases in the use of those resources by non-subsistence users."116 115 Id. at R-1. 116 Id. This threshold "is quite low: it is triggered whenever 'the contemplated action may significantly restrict subsistence uses.'"117 Only a "threat of significant restriction" is required; "such restriction need not be likely."118 The Bureau's own guidance directs the agency "to err on the side of protection" when struggling to determine whether "impacts resulting from the proposed action are significant enough for a positive finding of 'may significantly restrict.'"119 The guidance further directs the agency to "remember that the intent of Title VIII of ANILCA is to protect subsistence use, and that the Section § 810 process has the ultimate goal of identifying ways in which impacts to subsistence can be minimized through the Notice and Hearings process."120 117 Sierra Club v. Penfold, 664 F. Supp. 1299, 1307 (D. Alaska 1987), aff'd, 857 F.2d 1307 (9th Cir. 1988) (quoting Tribal Village of Akutan v. Hodel, 792 F.2d 1376, 1379 (9th Cir.1986), judgment vacated sub nom. Amoco Prod. Co. v. Tribal Vill. of Akutan, 480 U.S. 943 (1987)). 118 Hanlon v. Barton, 740 F. Supp. 1446, 1448 (D. Alaska 1988). 119 Bureau of Land Mgmt., Instructions and Policy for Compliance with Section 810 the Alaska National Interest Lands Conservation Act, IM-AK-2011-008, Appendix 6, at 6-2 to 6-3 (2011). 120 Id. at 6-3. Here, the Bureau did not "err on the side of protection" and it ignored ANILCA's intention for federal land management agencies to work with Tribes and subsistence users to protect subsistence uses and resources. Based on the Bureau's findings throughout the Draft RMP, the low threshold of whether the proposed action may significantly restrict subsistence uses was triggered and the agency should have provided notice to, and held ANILCA § 810 hearings in more potentially affected communities throughout the planning area.	The BLM has been and remains committed to fulfilling the responsibility under ANICLA Section 810 to adequately inform subsistence users of the effects on them under the RMP and consider their comments. The public hearings on January 28 through February 4, 2021, were held with adequate notice. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP, in and considered stakeholder input. Alternative E does not recommend revocation of PLO 5150. If the BLM's Proposed Alternative had been one that had adverse impacts such as those the commenter highlighted, then the BLM would have held additional ANILCA 810 hearings to address this deficiency.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	29	Subsistence	212.0200.00	The agency found that the cumulative effects of the Draft RMP may significantly restrict subsistence uses for the communities of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Coldfoot, Evansville and Wiseman "due to potential reductions in the abundance, availability, and access to large mammals, fish, furbearers, firewood, and berries."121 However, the Draft RMP recognizes that these potential reductions could occur throughout the planning area. Therefore, the agency should have made a positive finding and undertaken tier-II analysis for all planning area communities. 121 Draft RMP and EIS Appendix R at R-19-20.	The BLM has been and remains committed to fulfilling the responsibility under ANICLA Section 810 to adequately inform subsistence users of the effects on them under the RMP and consider their comments. The BLM provided notice in the Federal Register that it made positive findings pursuant to ANILCA Section 810 that Alternatives B, C1, C2, D, E, and the Cumulative Case presented in the CYRMP Draft RMP/EIS meet the "may significantly restrict" threshold. The public hearings on January 28 through February 9, 2021 were held with adequate advance notice to provide an opportunity for testimony to residents of the potentially affected communities. Input from these meetings was considered during the planning process and in the final ANILCA 810 evaluation (**Appendix R**).

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Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	30	Subsistence	212.0200.00	The Bureau's ANILCA § 810 analysis contradicts the agency's findings in other portions of the Draft RMP. For example, the Bureau concluded that mining occurring in waterbodies "where salmon are harvested for subsistence purposes," communities downriver from those mining activities "could experience impacts on the abundance and availability of fish" due to habitat fragmentation, degradation or elimination.122 But, in the ANILCA § 810 analysis, the Bureau found that most downstream communities were not likely to experience restrictions of subsistence uses and therefore those communities did not receive notice or hearings. Similarly, the agency determined that under all alternatives, increased surface-disturbing activities, especially in remote areas of the planning area, could increase the spread of invasive species which could "change the plant community species composition and affect subsistence harvest practices."123 These findings are sufficient to trigger tier-II notice and hearing requirements. 122 Id. at R-13. 123 Draft RMP and EIS Appendix Q at Q-56.	Thank you for pointing out inconsistencies with the Draft RMP/EIS and 810 evaluation. Corrections to the inconsistencies in this appendix have been made in the Proposed RMP/Final EIS. The specific language identified in this comment "could experience impacts" and "not likely to experience restrictions of subsistence uses" are not contradictory. The BLM has been and remains committed to fulfilling the responsibility under ANICLA Section 810 to adequately inform subsistence users of the effects on them under the RMP and consider their comments. The public hearings on January 28 through February 4, 2021, were held with adequate advance notice, and input from these meetings was considered during the planning process.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	31	Subsistence	212.0200.00	The Bureau's analysis also underestimates potential impacts on subsistence resulting from the transfer of federal land to the state. Despites the agency's assertion that lands transferred to the state would retain fish habitat in conditions similar to those lands remaining under federal control, there is no way for the agency to control this.124 Likewise, the Bureau asserts that all action alternatives "would be subject to the same reclamation standards for surface-disturbing activities" which would protect subsistence resources,125 but this is not the case for lands likely to be transferred into state ownership. 124 See e.g., Draft RMP and EIS Appendix R at R-13. 125 Draft RMP and EIS Appendix Q at Q-56.	BLM has taken a large amount of input from interested parties into consideration. Commentor is correct, BLM does not manage lands after they have been transferred to the State of Alaska. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of stakeholder input. Most relevant to this comment, Alternative E does not recommend revoking the withdrawal of PLO 5150.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	32	Subsistence	212.0200.00	Additionally, the Bureau relied on incomplete data to make its determinations. The Draft RMP relies on data primarily sourced from ADF&G reports, however, the agency recognized that the data available "are limited in scope," "may reflect only area use during a specific time," "may represent historical use areas," and may not be comprehensive.126 The Draft RMP includes some specific concerns "identified through conversations with local stakeholders for some communities"127 but if the Bureau held more ANILCA § 810 hearings, it could solicit significantly more input from Tribes and subsistence users. Gaining more accurate information from local subsistence users would fulfill ANILCA's purpose to meaningfully include subsistence users' voices in land management processes. 126 Id. at Appendix Q at Q-7. 127 Id.	In evaluating potential impacts under the different alternatives and in developing the Proposed Plan, Alternative E, the BLM utilized the best available information including input from consultation, public comments, ANILCA Section 810 hearings, and other land use plans such as A Comprehensive Land Use Plan For The Traditional Lands of Stevens Village (1991), in addition to Alaska Department of Fish and game subsistence surveys.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	34	Subsistence	212.0200.00	The preferred alternative provides the least protection for subsistence resources of all of the alternatives, including the no-action alternative.128 The Bureau acknowledges that it "has a greater potential to affect water, fish, and riparian vegetation" and "would result in greater potential impacts on subsistence uses and resources" than the no-action alternative.129 Yet, the Bureau's § 810 analysis concluded that this alternative did not carry the threat of restrictions on subsistence uses for most planning area communities. This conclusion is flawed. 128 Id. at Q-83. 129 Id. at Q-55. For example, the preferred alternative would open 4,406,000 acres (100 percent) of subsistence use areas to locatable minerals and mineral material sales.130 The Bureau recognizes that "with no areas withdrawn from mining, the potential for impacts on subsistence resources would be greater under this alternative."131 While the Bureau emphasizes the importance of "minimiz[ing] mineral development and extraction in stream and river channels" along with other waterbodies and habitats that support fish and wildlife, the preferred alternative does not minimize the risk of these activities and poses a direct threat to subsistence uses in important watersheds throughout the planning area.132 In fact, the preferred alternative would remove the streambank protections currently in place and provide "fewer protections for fish and other subsistence resources" than the no-action alternative.133 These potential impacts to important waterbodies, and the fish and wildlife that rely upon them, are sufficient to have triggered ANILCA § 810 tier-II analysis throughout the planning area. 130 Draft RMP and EIS Appendix R at R-12, R-19. 131 Id. at R-13. 132 Draft RMP and EIS Appendix Q at Q-58. 133 Id. at Q-64.	Thank you for pointing out inconsistencies with the Draft RMP/EIS and 810 evaluation. Not only has this inconsistency been fixed in the Proposed RMP/Final EIS, but Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of stakeholder input. Most relevant to this comment, Alternative E does not recommend revocation of PLO 5150.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	35	Subsistence	212.0200.00	Given the agency's flawed findings about the potential restrictions on subsistence use throughout the planning area, it should hold additional ANILCA § 810 hearings in communities excluded from tier-II analysis. Additionally, the way the Bureau conducted the recent ANILCA § 810 hearings inappropriately limited participation. The Bureau held virtual public comment and question-and-answer meetings in January and February 2021. These virtual meetings were broken into several discrete sections, including public comments on the record, off-the-record question-and-answer sessions, and ANILCA § 810 comments. 134 The portion of the meeting reserved for§ 810 comments came at the end of the lengthy virtual meeting. While the ongoing COVID-19 pandemic requires the agency to undertake public hearings using different means, the limited participation in the§ 810 hearings illustrates that the agency did not adequately fulfill its ANILCA obligations to planning area communities. As participants commented during the meeting, consistent internet connectivity is lacking throughout planning area communities and despite a desire to do so, it can be challenging for Tribes and subsistence users to participate in that forum, particularly if they wish to make § 810 comments but must wait for several hours for the opportunity to do so. The agency should conduct additional hearings to ensure a meaningful opportunity to participate for Tribes and subsistence users throughout the planning area. Before conducting additional hearings, the Bureau should engage with planning area Tribes and communities to determine the appropriate mechanism to undertake such hearings. 134 See e.g., Transcript of Central Yukon Draft RMP/EIS Public Comments, Virtual Via Zoom, 34 (Feb. 2, 2021).	The BLM has been and remains committed to fulfilling the responsibility under ANICLA Section 810 to adequately inform subsistence users of the effects on them under the RMP and consider their comments. The public hearings on January 28 through February 4, 2021, were held with adequate advance notice, and input from these meetings was considered during the planning process.
Whitehill	Barry	No organization name	None	137	8	Subsistence	212.0200.00	My primary concern with the BLM's preferred Alternative C2, is the effects that increased development will have on the availability of subsistence resources. The BLM states that "the development of new roads near or through communities that have previously been remote have historically created impacts on subsistence resource abundance and availability" (DEIS, pg. 3-191). The high preference that Alternative C2 shows towards resource development has great potential to negatively affect subsistence resources. Further, the revocation of PLO 5150 and successful conveyance of that land to the state would open that land to Generally Allowed Use provisions (unless restrictions are implemented by the state) under state law, greatly increasing hunting pressure in the corridor. I am very concerned that increased hunting pressure and impacts from development will reduce availability of subsistence resources and will force necessary closures of Federal land to non-federally qualified users under ANILCA Title VIII.	Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS and took into consideration stakeholder input. Most relevant to this comment, Alternative E does not recommend revocation of PLO 5150.

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Gestring	Bonnie	Earthworks	None	146	18	Subsistence	212.0200.00	In addition, the Draft RMP/EIS's Cumulative Impacts analysis of Mining, Climate Change & ROW Development is insufficient. On the one hand, for example, the PRMP/Final EIS acknowledges that climate "change could result in impacts on the health, density, distribution, and availability of subsistence resources throughout the state."17 17 Draft RMP/EIS at 3-182. On the other hand, based on a University of Alaska Fairbanks study concluding "that harvesters perceived that climate change-driven factors related to access are affecting subsistence harvest more than changes in the distribution or abundance of resources,"18 the only impacts to subsistence resources resulting from climate change listed in the Draft RMP/EIS, are alterations to "the physical setting" affecting access to subsistence resources.19 18 Brinkman et al. "Arctic communities perceive climate impacts on access as a critical challenge to availability of subsistence resources," Climatic Change, April 2016. https://www.researchgate.net/profile/Todd-Brinkman/publication/308925033_Arctic_communities_perceive_climate_impacts_on_access_as_a_critical_challenge_to_availability_of_subsistence_resources/links/5c479383458515a4c739c348/Arctic-communities-perceive-climate-impacts-on-access-as-a-critical-challenge-to-availability-of-subsistence-resources.pdf 19 Draft RMP/EIS at 3-182. That this information is out of date, however, is illustrated by the fact that since the RMP was drafted there have been substantial impacts to the distribution or abundance of resources as a result of climate change. According to the Alaska Center for Climate and Policy, for example: "2019 was the warmest year on record for Alaska according to all analysis centers, including NOAA, NASA, and Berkeley Earth. In the NOAA analysis, the average statewide temperature of 32.2°F was 0.3°F warmer than 2016, the previous warmest year, and also the first year with an average above freezing. Many individual places saw the warmest year of record, including Kodiak, Anchorage, Fairbanks, Kotzebue and Utqiagvik. July was easily the warmest month on record for Alaska. Anchorage recorded its first ever 90°F temperature on July 4."20 20 Alaska Climate Dispatch, November 2019-April 2020 Summary, p. 9 (September 9, 2020).	Thank you for the information, the BLM strives to incorporate the best available science. This article, and in particular subsistence hunter's perception of climate change risk and the associated impacts on access have been incorporated into the subsistence section of Chapter 3 (Section 3.5.2).
Gestring	Bonnie	Earthworks	None	146	69	Subsistence	212.0200.00	Failure by BLM to provide an anthropologist on the planning team. Few other BLM planning areas in the United States have more resident Tribes than the Central Yukon planning area. BLM did not provide a trained anthropologist on the planning team to evaluate impacts on indigenous people's traditional use of the land and so did not include an evaluation of the proposed plan's impacts on people's wild-food economy.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input. Consideration of agency staffing and resources is beyond the scope of the Central Yukon RMP. Analysis of impacts relevant to the resource concerns expressed in the comment can be found in the subsistence and cultural resources sections of Chapter 3 (**Sections 3.2.9** and **3.5.2**).
Gestring	Bonnie	Earthworks	None	146	78	Subsistence	212.0200.00	The DEIS should incorporate recent research which documents the impacts of climate change on fish body size, which may have significant effects for subsistence users. A 2020 study found reduced body size in fish across Alaska associated with climate change and competition at sea.77 It finds that the reduced size in adult salmon after 2010 has potentially resulted in substantial losses to ecosystems and people; for chinook salmon they estimated average per-fish reductions in egg production (-16%) nutrient transport (-28%) fisheries value (-21%), and meals for rural people (-26%). 77 Oke, et al., "Recent declines in salmon body size impact ecosystems and fisheries," Nature Communications 11, Article 4155, August 19, 2020. Available: https://www.nature.com/articles/s41467-020-17726-z	Thank you for the information, the BLM strives to incorporate the best available science. This article, in particular the effects of climate change on fish body size and the associated potential impacts on subsistence use have been incorporated into the climate change portion of the subsistence section in Chapter 3 (**Section 3.5.2**).
Gestring	Bonnie	Earthworks	None	146	88	Subsistence	212.0200.00	There needs to be stronger SOPs addressing subsistence. Rather than SOP SUB-1 and SOP SUB-2 saying that "The BLM AO may require permittees…" (emphasis added), these SOPs should require BLM to provide information to potentially affected subsistence communities in SOP SUB-1 and to consult with potentially affected subsistence communities in SOP SUB-2. The Central Yukon RMP should place greater emphasis on the communities who live in and off the area through increased information exchanges.	Thank you for your input. The BLM has been and remains committed to fulfilling the responsibility under ANICLA Section 810 to adequately inform subsistence users of the effects on them under the RMP and consider their comments. The BLM also remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input. While permittees would not always be required to provide information to and document consultation with potentially affected communities, neither would it be optional. As currently written the BLM authorizing officer would decide whether to require this of permittees, and this judgment would be based on the best available information, including input from potentially affected communities.
Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	7	Subsistence	212.0200.00	Subsistence/Recreation: Subsistence users residing in the villages of Hughes, Huslia, Koyukuk, Nulato, Kaltag, Ruby, and Galena rely upon the region's intact watersheds which are co-managed by Koyukuk, Nowitna, and Innoko NWRs and BLM. We recommend BLM work closely with tribal partners to identify and protect lands, watersheds, and wildlife corridors of importance for subsistence use in the development of this plan. Actions that diminish watershed health will affect the ability of these systems to provide adequate subsistence opportunity. In this regard, we would ask BLM to reject the preferred alternative (C2), as it clearly offers the least protection to subsistence resources and practices throughout the planning area, as well as upstream, downstream, and adjacent to the Koyukuk, Nowitna, and Innoko NWRs. Alternatives A and B offer protections to subsistence resources and uses through ACEC designations, closures to mineral entry, leasing, and other surface-disturbing activities, and establishment of right-of-way avoidance and exclusion areas. All action alternatives recommend full revocation of PLOs 5173, 5179, 5180, 5184, and 5186 which would put subsistence access and practices at risk within and adjacent to the Koyukuk, Nowitna, and Innoko NWRs and across the planning area. We recommend BLM retain these ANCSA PLOs as per Alternative A, or replace them with FLPMA withdrawals. Full revocation of these PLOs would reduce the protections described in Alternatives A and B if the State of Alaska top-filed lands in the planning area become valid selections and are conveyed. (BLM acknowledges in Appendix Q that Priority 1 selections are likely to be conveyed during the life of the plan). This loss of protection, combined with increased potential for development, poses considerable risk to subsistence resources in our region. We are concerned about potential impacts to local subsistence fisheries without the protections described in Alternatives A and B in the vicinity of Koyukuk, Nowitna, and Innoko NWRs. These protections include recognition and management of ACECs, suitable WSR segments, lands with wilderness characteristics, and PLOs, and provide appropriate restrictions on mining development, ROW, and other forms of surface disturbance in important watersheds. We recommend management of the following ACECs to protect known spawning areas for Chinook, chum and coho salmon, whitefish, sheefish, and other fish species: Huslia River, Hogatza River Tributaries, Wheeler Creek, Klikhentotzna Creek, Indian River, Dulbi River, Sulukna River and Sethkokna River. Additionally, we recommend the following lands with wilderness characteristics (identified in Alternative B) be managed to protect wilderness character as priority over other uses for the protection of subsistence fisheries: Wheeler Creek, Hogatza River Tributaries, Klikhentotzna, Sulukna, and Sethkokna. We do not support full revocation of ANCSA PLO withdrawals 5173, 5179, 5180, 5184, and 5186 as this action puts local subsistence fisheries at risk via potential development in sensitive watersheds.	Alternative E, the Proposed Plan, was developed from the range of alternatives, and development took the expressed concerns into account. Among other management, Alternative E would designate 21 ACECs covering 3,611,000 acres. Alternative E recommends that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans where the PLOs currently do not allow for it.
Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	31	Subsistence	212.0200.00	Subsistence * With regard to subsistence, we would ask BLM to reject the preferred alternative (C2), as it clearly offers the least protection to subsistence resources and practices throughout the planning area, as well as upstream, downstream, and adjacent to the Koyukuk Nowitna and Innoko NWRs. * Alternative A and B offer protections to subsistence resources and uses through ACEC designations, closures to mineral entry, leasing, and other surface-disturbing activities, and establishment of right-of-way avoidance and exclusion areas.	Alternative E, the Proposed Plan, was developed from the range of alternatives, and development took the expressed concerns into account. Among other management, Alternative E would designate 21 ACECs covering 3,611,000 acres. Alternative E recommends that the Secretary revoke in part 11.1 million acres of ANCSA 17(d)(1) PLOs to allow for selection by Alaska Native Vietnam-era veterans where the PLOs currently do not allow for it.

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Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	32	Subsistence	212.0200.00	* All action alternatives recommend full revocation of PLOs 5173, 5179, 5180, 5184, and 5186 which would put Refuge and subsistence access and practices at risk adjacent to the Koyukuk Nowitna and Innoko NWR's and across the planning area. Full revocation of these PLOs would eliminate the protections described above if the State of Alaska top-filed lands in the planning area become valid selections and are conveyed. (BLM acknowledges in Appendix Q that Priority 1 selections are likely to be conveyed during the life of the plan). This loss of protection, combined with increased potential for development, poses considerable risk to subsistence resources in our region. * We recommend BLM work closely with tribal partners to identify and protect lands, watersheds, and wildlife connectivity corridors of importance for subsistence use in the development of this plan. * We recommend BLM retain the ANCSA PLO withdrawals 5173, 5179, 5180, 5184, and 5186 adjacent to the Koyukuk Nowitna and Innoko NWRs as per Alternative A, or replace them with FLPMA withdrawals.	BLM appreciates the importance of tribal communities' knowledge, and the BLM is committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes. Alternative E, the Proposed Plan, was developed from the range of alternatives, and development took the expressed concerns into account. Alternative E would not recommend revocation of PLO withdrawals.
Magee	Susan	State Of Alaska	None	165	6	Subsistence	212.0200.00	1. Subsistence Concerns – Issues: o The draft RMP/DEIS does not clearly explain the federal and state subsistence systems. o The draft RMP/DEIS does not make clear distinctions between federal and state subsistence systems/users. o The draft RMP/DEIS uses incorrect terminology and presents incorrect statements related to subsistence. o The draft RMP/DEIS inaccurately portrays subsistence spatial data from the Alaska Department of Fish and Game (ADF&G). * Resolution: o Provide a clear, complete, and contextual explanation of both the federal and state subsistence systems. o Explicitly identify both the federal subsistence system as well as the state subsistence systems and associated users throughout the document. o Remove the use of "federal priority subsistence" and other terminology as identified as well as correct noted errors throughout the RMP/DEIS related to subsistence discussions. o Correct language and analysis related to inaccurate portrayal of subsistence spatial data. * Discussion: ANILCA provisions reinforce the authorities granted by the State Constitution that the State of Alaska is the primary wildlife manager on all lands (see ANILCA Sec. 1314). The taking on public lands, as defined by ANILCA, of fish and wildlife for non-wasteful subsistence uses shall be accorded priority over the taking on such lands of fish and wildlife for other purposes (see ANILCA Title VIII). These federally qualified rural residents can choose to hunt either under the federal subsistence hunting regulations, which tend to be more liberal than the state regulations, or under the state regulations, which sometimes provide different opportunities than the federal regulations. As we note throughout, subsistence hunting encompasses more than hunting under the federal subsistence hunting regulations. The State also implements a priority for subsistence: Alaska state law directs the Board of Game and Board of Fisheries to provide a reasonable opportunity for subsistence uses first, before providing for other uses of any harvestable surplus of a fish or game population [AS 16.05.258 (b)]. This is often referred to as the "subsistence preference" or sometimes the "subsistence priority" (see: https://www.adfg.alaska.gov/index.cfm?adfg=subsistenceregulations.main). The State of Alaska met with BLM planning staff and the consultants preparing the draft RMP/EIS on several occasions to help mentor and educate them in state and federal subsistence, as well as the use of ADF&G subsistence data, and to provide detailed feedback on the subsistence portions of the draft RMP/EIS. We appreciate the additional effort all staff dedicated to attempting to improve the planning document. Working relationships at the staff level represented meaningful and productive collaborative engagement. Unfortunately, the bureaucratic time constraints the planning process placed on all involved preempted the ability of the draft RMP/EIS planning staff and writers to produce a draft RMP/EIS that demonstrated a full understanding of the state and federal subsistence nexus, its relationship to the planning area, and potential impacts of possible land status changes. With few exceptions, throughout the draft RMP/EIS there is a lack of understanding of both the federal and state subsistence systems; generally, the existence of the state subsistence system is summarily ignored except brief references in the Social & Economic Resource Use section. However, when referenced, it is often referenced incorrectly, providing further confusion throughout the draft RMP/EIS. Case in point, for purposes of State subsistence regulation, it is the Joint Board of Fisheries and Game (Joint Board) that shall identify nonsubsistence areas, which are defined as areas where dependence upon subsistence (customary and traditional uses of fish and wildlife) is not a principal characteristic of the economy, culture, and way of life (AS 16.05.258(c)). This is only for State subsistence purposes. Whereas, for purposes of Federal subsistence regulation, it is the FSB that "define[s] which communities or areas of Alaska are nonrural [emphasis added] (all other communities and areas would, therefore, be rural [emphasis added])" (see 80 FR 68249). Areas are identified as rural in federal regulation and as non-	The Federal Subsistence Board is tasked with ensuring a Federal subsistence priority on all public lands in Alaska. This only applies to "rural Alaska residents" as opposed to the State which defines all Alaska residents as subsistence users. In the context of this RMP with respect to Federal public lands, "subsistence hunting" is specific to hunting, trapping and fishing activities conducted by rural Alaska residents, not nonrural residents engaging in these activities under State regulations where allowed on these public lands. This is an important distinction because under Title VIII of ANILCA, non-rural residents are not subsistence users in such circumstances. And, thank you for your comment and discussion of the nomenclature used in the subsistence sections. As appropriate, BLM has updated the Proposed RMP/Final EIS with the appropriate usage.
Magee	Susan	State Of Alaska	None	165	7	Subsistence	212.0200.00	Additionally, the following information is inappropriately attributed to the ADF&G Division of Subsistence and needs to be corrected. This information was attributed to personal communication with a community member in the cooperator review draft of the RMP in July 2020. The Division of Subsistence did not provide the personal communication from the community member nor did they publish this information: * DEIS, page S-4, citation correction needed (see bold): o Contrary to data provided in the AMS from the Alaska Department of Labor Statistics, information accrued in the preparation of this environmental analysis suggests that employment in gravel mining for residents of Wiseman and Coldfoot is not a steady source of employment. This means mineral material sales may currently have a limited effect on household incomes for communities located along the Dalton Highway. These data also suggest that trapping provides between 15 to 60 percent of household income depending on the year START BOLD (ADFG Division of Subsistence 2019) END BOLD [emphasis added]. This suggests that for residents living along the Dalton Highway, access to subsistence use areas, which is afforded through their subsistence priority status, indirectly affects economic opportunities for these communities. * DEIS, page S-35, citation correction needed (see bold): o Contrary to data provided by the Alaska Department of Labor Statistics identified in the AMS, information gathered from residents of Coldfoot and Wiseman suggests there are few residents who receive a regular income from mineral material sales; rather, work in mineral materials offers irregular employment START BOLD (ADFG Division of Subsistence 2019) END BOLD [emphasis added]. To properly cite personal communication, the name of the BLM staff contact and the name of the local contact need to be identified as well as the date of contact and the mode of communication. The Division of Subsistence includes systematically collected Traditional Ecological Knowledge and Local Traditional Knowledge in their reports, including those cited in the draft RMP/EIS. It is inappropriate to solicit direct feedback and critique from a single community member on the use area maps created by numerous project respondents. Doing so is undermining to those local participants and is a biased approach to gathering data. The table titled "Q-1 Central Yukon Subsistence Communities, Estimated Pounds of Resources Harvested by Household" (see 2021 DEIS, p. Q-4) should have a reference to ADF&G Division of Subsistence Community Subsistence Information System: https://www.adfg.alaska.gov/sb/CSIS/.	The BLM appreciates the importance of accurately representing sources and information presented in the RMP/EIS. The table in Appendix Q has been correctly attributed to ADFG Community Subsistence Information System. In Appendix S, the indicated information and reference attributed to '(ADFG Division of Subsistence 2019)' has been removed.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Magee	Susan	State Of Alaska	None	165	8	Subsistence	212.0200.00	2. ANILCA 810 Analysis - Issues: o Does not provide the relevant information on and definition of public lands. o Fails to recognize that in addition to the 810 analysis, there is an existing regulatory framework in place to protect subsistence resources. o Provides inaccurate or misleading findings because of potentially exaggerated acreages by failing to clarify "public lands," as defined in ANILCA, do not include "land selections of the State of Alaska which have been tentatively approved or validly selected under the Alaska Statehood Act…" o Fails to recognize subsistence opportunities under state regulations. o Inaccurately portrays subsistence spatial data from ADF&G. * Resolution: o Provide the relevant definition of public lands as defined by ANILCA Section 102(3). o Recognize existing regulatory framework in place to protect subsistence resources including, e.g., the Clean Water Act, the Clean Air Act, other agency authorities such as ADF&G Title 16 Fish Habitat Permitting Authority. o Clarify what acreages are affected given the ANILCA definition of public lands. o Factor opportunities afforded by state subsistence regulations into the analysis. o Correct language and analysis related to inaccurate portrayal of subsistence spatial data. * Discussion: The State understands the importance of subsistence to local rural residents who live in remote communities across the state. ANILCA Section 810 requires that federal agencies conduct an analysis of impacts to subsistence resources, use, and access when determining whether to "withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands." Management plans, such as CYRMP, therefore evaluate potential impacts associated with proposed management direction. The analyses are necessarily broad and speculative. Therefore, we appreciate BLM explicitly recognizing that subsequent 810 analyses will also be conducted on a project-specific basis to ensure that impacts to subsistence will continue to be addressed in detail whenever development is proposed in the planning area with potential to restrict subsistence abundance, availability, or access to resources. The 810 Analysis refers to public lands throughout, yet does not provide the relevant definition of public lands as defined by ANILCA Section 102(3), nor a clarification that indicates that public lands do not include lands selected but not conveyed to the State of Alaska or Native Corporations and villages. ANILCA Section 102 defines public lands in Alaska to specifically exclude lands selected by the State of Alaska and Alaska Native Corporations. This is a critical concept for the reader to understand the information presented in the proper context. It is insufficient for the draft RMP/EIS to merely direct the reader to look up the definition for themselves on pages E-1, M-98, M-114 and 2-55 for a concept so critical to understanding the draft RMP/EIS. Only once, on page 3-155 is it noted that "[s]elected lands are not considered public lands for the purposes of federally qualified subsistence." It is also important for the analysis to recognize that in addition to the 810 analysis, there is an existing regulatory framework in place to protect subsistence resources which includes the Clean Water Act, the Clean Air Act, other agency authorities such as ADF&G Title 16 Fish Habitat Permitting Authority. Further, the planning area includes several expansive federal CSUs, which are subject to the same regulatory framework and ANILCA Title VIII, including the requirement to conduct an 810 analysis for any future development proposals. The State also provides for subsistence on state-owned lands and, under most development scenarios involving state land, the same regulatory framework would apply to development proposals because of the extensive wetlands in rural Alaska which trigger permitting requirements under the Clean Water Act and other authorities. This regulatory framework and the requirement to conduct an 810 analysis still apply absent any of the proposed planning direction in the draft RMP/EIS. The above-described regulatory framework which, although mentioned for BLM land actions, as presented, does not indicate to the reader through presentation of analysis or description to have been equally factored into the analysis for future potential State of Alaska lands. Case in point, the	The definition of "public lands" under ANILCA Section 102(3) has been added to Section R.1 of **Appendix R**, specifically calling out the exclusion of state selected lands. This ANILCA 810 evaluation evaluates the impacts of the alternatives on Federally qualified subsistence users, not under State of Alaska subsistence regulations.
Magee	Susan	State Of Alaska	None	165	9	Subsistence	212.0200.00	An additional failure of the 810 analysis is the lack of consideration of non-federally qualified subsistence users who conduct subsistence practices under state regulations as a traditional activity. Emigration from rural communities to hubs and cities is projected to increase as climate change and economic shifts threaten the infrastructure and social makeup of many Alaska communities. Emigration eliminates federally qualified status for many former rural residents and their families. However, accommodation by the State's subsistence regulations allows former residents to return to traditional hunting and fishing areas to engage in and maintain their traditional subsistence culture and obtain foods they prefer to eat or desire to provide for friends and family that remain in the community but cannot hunt for themselves. This is vital to many communities across the state where elders often rely on younger members of their extended family to harvest and provide subsistence foods. These are significant effects on the subsistence harvest of fish and wildlife, and the costs to conduct these uses that are not considered in the draft RMP/EIS. For example, what are the realized costs of having to purchase food if a non-federally qualified subsistence hunter may no longer practice subsistence activities with family members or rely on family members. This flaw in the analysis, coupled with the flawed understanding of subsistence and subsistence spatial data, provide ample cause to reject the conclusions of the document. The 810 Analysis should include analysis of opportunities for non-federally qualified family members, or former area residents that have left their village, often for education, work or family medical issues, and return to help harvest subsistence resources and participate in subsistence activities with their federally qualified relatives and conduct some of these practices under state regulations as a traditional activity. As noted previously in our cooperator reviews, the statement in the Analysis that community "core subsistence use areas …would not [emphasis added] be impacted" (Appendix R, p R-7) as a result of the revocation of PLO 5150 conflicts with much of the information presented and is problematic. There is no documentation of what a "core" activity is let alone a reliable method for determining where "core" activities happen. The concept of "core" subsistence activities is not documented nor supported through presentation of data anywhere in the draft RMP/EIS. This statement has no citation to provide clarification. The Division of Subsistence has not published density maps; this conclusion is currently unfounded and misleading especially when considered with the Analysis as a whole. Also as noted above and in previous cooperator reviews, estimating a specific percent of subsistence use area is misleading. This is a recurring issue throughout the Analysis and specifically as it relates to estimating overlap with the outer corridor of PLO 5150. The RMP/DEIS should clearly note that subsistence spatial data used in the analysis was collected in a single year and that use areas change every year depending on a variety of factors, such as abundance and environmental conditions. Language, such as "core moose hunting area" that follows below, has no applied or theoretical meaning, and is not supported by ADF&G data and the RMP/DEIS offers no substantiation of such a concept. The State disagrees with the use of such incorrect, unvalidated, and misleading language; we request it be removed from the DEIS. Less than 55 percent of the moose subsistence use area overlaps the outer corridor, and the core moose hunting area, as well as river-accessible areas, would not be impacted by revocation of PLO 5150 in the outer corridor. (Appendix R, page R-7)	This ANILCA 810 evaluation evaluates the impacts of the alternatives on Federally qualified subsistence users, not under State of Alaska subsistence regulations. Language in the 810 evaluation has been adjusted to clarify meaning and remove "core" in reference to subsistence use areas. Opportunities afforded for subsistence under State hunting, trapping and fishing regulations are often not equivalent to what is available to Federally qualified subsistence users. Federal regulations often allow for longer seasons, more liberal harvest limits or less onerous permit requirements. Also, the subsistence priority afforded to rural residents under Title VIII of ANILCA often allows for seasons that start before State seasons, allowing for exclusive use of some Federal lands prior to the start of State seasons. Non-Federally qualified relatives returning to rural communities are not able to take advantage of these opportunities due to their nonrural status. Full revocation of the PLO would make this Federal subsistence priority no longer relevant for all residents, including those that reside in rural locations. Alaska State law, AS 19.40.210, bars motorized access to the areas in the outer corridor if the land is conveyed to the State. Due to the State law, the BLM's analysis that access would be restricted if the outer corridor is conveyed is correct.
Magee	Susan	State Of Alaska	None	165	10	Subsistence	212.0200.00	Additionally, there is no magnitude of impact provided in the 810 Analysis to accurately depict or describe how many acres of land on which the federal priority, when needed, would apply with and without PLO 5150 being revoked. The acreage of federal lands in the corridor needs to be tallied and presented in the 810 Analysis as it relates to the federal subsistence priority as defined in ANILCA Section 804, rather than left to the reader to figure out separately or from unrelated maps. The BLM needs to better communicate science and land management to the public.	The magnitude of impact of any potential revocation of the PLO isn't only quantifiable from an acreage perspective, however, acres that would be recommended for revocation and then acres of Priority 1 or 2 lands can were quantified in Section 3.3.2 Since revocation would mean the elimination of the Federal subsistence priority and the associated benefits of this priority, the loss of this alone could have a significant impact on Federally qualified subsistence users, from both a resource abundance and availability perspective, but also from a cultural standpoint. Subsistence is much more than the mere gathering of resources on the land, it's also about the passing on of these traditional practices to future generations. Elimination of the Federal priority could have significant impacts on the communication of these traditional practices, and this cannot be measured by the amount of acres of land lost due to revocation. Federal subsistence priority applies on all public lands per ANILCA 102(3). When a withdrawal is revoked, the management for subsistence does not extinguish. However, if the land is later conveyed or a State top filing becomes an effective State selection, these lands would no longer be considered public lands.
Busby	Sean	No organization name	None	177	1	Subsistence	212.0200.00	Any priority lands the State would like to select near Wiseman community need to be evaluated and addressed with the Wiseman Community Association for compatibility with Subsistence uses and reasonable accesses to other Federal lands including Gates of the Arctic National Park.	The Proposed RMP/Final EIS analyzed the effects of revoking PLO 5150 and the ANCSA 17(d)(1)s withdrawals. When a withdrawal is revoked, the management for subsistence does not extinguish. However, if the land is later conveyed or a State top filing becomes an effective State selection, these lands would no longer be considered public lands. This would result in potential negative effects on subsistence. Alternative E does not propose revoking the ANCSA 17(d)(1)s withdrawals, but instead proposes partially revoking them to allow for selection by Vietnam-era veterans or the state.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Mannix	Jacob	Backcountry Hunters & Anglers	None	185	21	Subsistence	212.0200.00	Alaska BHA finds several statements made by the BLM regarding the effects on subsistence, of the preferred Alternative C2, concerning. "Except for Toolik Lake RNA, there would be no additional ACEC or RNA designations under Alternative C2. Protections provided from these designations for subsistence species under Alternative A, particularly for Dall Sheep and caribou, would be removed." (DEIS, pg. 3-189) "Under Alternative C2, 4,406,000 acres (100 percent) of the community subsistence use areas in the decision area would be open to location of metalliferous minerals… There would be 0 acres recommended for locatable mineral withdrawal. Because all PLOs would be revoked under Alternative C2, no acreage would remain withdrawn under this alternative." (DEIS, pg. 3-189) "There would be 399,000 acres of community subsistence use areas in the decision area (9 percent) under Alternative C2 designated as ROW avoidance, and 0 acres of community subsistence use areas in the decision area designated as ROW exclusion… 4,007,000 acres (91 percent) of community subsistence use areas in the decision area would be open to ROWs…" (DEIS, pg. 3-189) "Alternative C2 recommends a full revocation of the PLO 5150 withdrawal… The full revocation would entail 651,000 acres (15 percent) of community subsistence use areas in the decision area automatically becoming valid selections for the State of Alaska." (DEIS, pg. 3-189) Alaska BHA's primary concern with the BLM's preferred Alternative C2, is the effects that increased development will have on the availability of subsistence resources. The BLM states that "the development of new roads near or through communities that have previously been remote have historically created impacts on subsistence resource abundance and availability" (DEIS, pg. 3-191). The high preference that Alternative C2 shows towards resource development has great potential to negatively affect subsistence resources. Further, the revocation of PLO 5150 and successful conveyance of that land to the state would open that land to Generally Allowed Use provisions (unless restrictions are implemented by the state) under state law, greatly increasing hunting pressure in the corridor. Alaska BHA is very concerned that increased hunting pressure and impacts from development will reduce availability of subsistence resources and will force necessary closures of Federal land to non-federally qualified users under ANILCA Title VIII. Alaska BHA urges the BLM to consider this as a potential outcome and to again consider Secretarial Orders 3347 and 3356 (as referenced on page 4 of this comment), to increase hunting opportunity through improved habitat management. Alaska BHA is also concerned that the preferred alternative does not apply enough protections to habitat and has potential to be detrimental to fish and wildlife, thereby decreasing wildlife dependent subsistence and recreational activities. This in turn has the potential to cause additional reduction in opportunity for non-federally qualified users if subsistence needs cannot be met. As stated by the BLM "…Alternative B would provide the greatest measure of protection for subsistence resources and uses indirectly affected by present and future activities in the planning area…" (DEIS, pg. 3-192). Alaska BHA urges the BLM to select protections for fish and wildlife in Alternative B and to maintain PLO 5150 in the entirety to ensure subsistence needs are adequately met.	Alternative E, the Proposed Plan, was developed from the range of alternatives, and development took the expressed concerns into account. Management under Alternative E that would be most responsive to these concerns includes designating 1,853,000 acres as either ROW exclusion or avoidance areas, designating 21 ACECs covering 3,611,000 acres and not recommending revocation of public land withdrawals.
Kriska	David	Stevens Village Tribal Council / Dinyea Corporation	None	189	1	Subsistence	212.0200.00	Any potential land conveyance to the state of Alaska would mean a loss of rural subsistence preference under Alaska National Interest Lands Conservation Act or ANILCA. The proposed alternative would allow increased access along the Dalton Highway, and again would strike at the heart of Stevens Village Ancestral lands, causing unnecessary harm to our subsistence and cultural resources, and would negatively impact the socio-economic well-being of our people	Alternative E, the Proposed Plan, was developed from the range of alternatives, and development took the expressed concerns into account. Management that would address these concerns under Alternative E would not include recommending revocation of public land withdrawals.
Kriska	David	Stevens Village Tribal Council / Dinyea Corporation	None	189	3	Subsistence	212.0200.00	During our Tribal Consultation session with BLM on March 1, 2021, it was noted that the Section 810 analysis performed by BLM personnel did not adequately capture the use of this area and resources by our people. Several key pieces of information had been inexplicably left out of the analysis that created an inadequate analysis of our people's use of this critical area. It has been noted that the BLM had failed to include and reference the Stevens Village Land Use Plan when drafting the Central Yukon Draft EIS/RMP. By law, BLM must acknowledge and reference stakeholder land use plans in the planning process to ensure that stakeholders are given an equal voice. Again, our plan clearly establishes historical use of land and resource use in our Ancestral land boundary, and those same activities are still practiced today. The Stevens Village Tribal Council requests that the BLM revise the Section 810 analysis especially as it pertains to the Ancestral lands of Stevens Village. The information presented in the current Section 810 analysis is not accurate and does not accurately reflect historical and current use the areas for subsistence and or cultural purposes by our people. During the Section 810 subsistence portion of the public hearing in Fairbanks, it was stated by BLM personnel that Stevens Village would not be negatively impacted by the revocation of the corridor lands. This statement is simply not true. Survey data from 2014 used to support the BLM's conclusion of no significant impact was taken during a very low population period in the village. The BLM must fully acknowledge the potential negative impacts to the well-being of our people if our Ancestral homelands are opened to further development. More development simply means more negative impacts to the resources and land that our people depend on for survival. Over 51% of Stevens Village residents live below the poverty level. The BLM must ensure that well-being of our people is not further eroded by a planning alternative that is designed support increased development without regard to the well-being of our people. BLM preferred alternative C-2 does not support our tribal right to environmental justice and violates our traditional land and resources management practices. Additionally, if BLM adopts Alternative C-2, the residents of Stevens Village will experience the loss of the rural preference under ANILCA while at the same time experiencing increased access and the loss of vital subsistence resources, thereby increasing existing impoverishment.	BLM reviewed non-BLM land use plans (state, municipal, and tribal) including the 1991 Comprehensive Land Use Plan For The Traditional Lands of Stevens Village in the development of this RMP, now reflected in **Appendix D** and the references to it in the Proposed RMP/Final EIS. The intersection of the western zone of the Stevens Village customary and traditional use area with PLO 5150, in context of the recommended revocation of the PLO 5150, was added to analysis in the ANILCA 810 final evaluation (**Appendix R**) and Chapter 3 (Section 3.5.2, Subsistence) of the Proposed RMP/Final EIS. The Proposed Plan, Alternative E, was developed in consideration of these concerns and makes no recommendation for the revocation of Public Land Orders.
Brown	Loretta	SalmonState	None	198	6	Subsistence	212.0200.00	The BLM should clarify and correct the ANILCA Section 810 subsistence analysis and make a positive finding, and undertake Tier-II analysis for the entirety of the planning area prior to the Final EIS. It is troubling that the Draft RMP cumulative impacts section states that subsistence may be significantly restricted for some villages24 and not others, including not holding ANILCA Section 810 hearings for some downstream villages, despite the fact that the Draft RMP acknowledges that reductions in subsistence resources might take place across the entire range of the planning area's geography. BLM should identify a preferred alternative that prioritizes access to subsistence resources and protection of those resources.	Thank you for your comment. Multiple inconsistencies and errors have been corrected in the ANILCA Section 810 evaluation for the Proposed RMP/Final EIS, and the BLM has taken a large amount of input from interested parties into consideration. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of this input. Most relevant to this comment, Alternative E does not recommend revoking PLO 5150 or any other withdrawals and would designate 21 ACECs covering 3,611,000 acres, many of which would be managed for the protection of subsistence resources or related values.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	4	Subsistence	212.0200.00	BLM's own analysis demonstrates that tribes in the TCC region are unlikely to benefit from potential positive economic impacts offered by resource development and more likely would experience disproportionate adverse impacts. Both "Alternative C2 and D would increase risk for rural subsistence communities due to effects on subsistence access."4. Under C2 and D, some planning area communities "may experience an increased cost of living and a heightened risk of food insecurity due to impacts to subsistence resources, constituting a disproportionate, negative impact."5 The region is already suffering food insecurity challenges resulting from access, user conflicts, competition, habitat changes and reduced abundance, particularly of Yukon River salmon. 4 DEIS 3-206. 5 DEIS 3-180, see also DEIS 3-204.	BLM listened to the public comments, especially from within the communities, and adjusted its analysis based on the input it received. ANILCA public hearings were held virtually via Zoom on January 28, February 4, and February 9, 2021. The hearings provided an opportunity for testimony to residents of the potentially affected communities of Alatna, Allakaket, Anaktuvuk Pass, Bettles, Coldfoot, Evansville, and Wiseman, as well as other communities throughout the planning area. Feedback received during the ANILCA 810 hearings, along with consideration of public comments, and further consideration of impacts to environmental justice communities documented in the RMP/EIS (Section 3.5.1) led to modifications of findings for some alternatives to more accurately depict impacts from RMP alternatives in this analysis. The Proposed RMP/Final EIS, Chapter 3 Social and Economic Conditions, lists Alternatives C2 and D as the most likely to have an increased risk of food insecurity due to impacts on subsistence resources. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of this input. Most relevant to this comment, Alternative E does not recommend revoking PLO 5150.

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Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	22	Subsistence	212.0200.00	Throughout the public hearings and meetings, subsistence participants from TCC villages noted the detrimental impacts of alternatives that provide for mineral development on lands important for subsistence and in areas that would alter migration routes of caribou (a significant food source) and degrade habitat that support subsistence resources. Both Steve Bergman in the Jan. 28, 2021 hearing and Irene Henry in the Feb. 2, 2021 hearing described the reduction in caribou availability west of the Dalton Highway after the construction of the road and TAPS. They noted that caribou come near Allakaket hunting areas less frequently and expressed concern that Alternatives C through D would decrease the caribou further. Specifically, Irene noted the cultural impact on a source of material for skin sewing - that there is no longer sufficient caribou to allow them to make moccasins. Steve noted that moose is also less frequently populating their customary and traditional use areas. At the Feb. 2, 2021 hearing, Jessie David spoke of the value of their ancestral lands and the potential development as an invasion into what people consider God's country, or their spiritual connection to their traditional use areas.	The BLM has been and remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes including ongoing consideration of tribal input on cultural resources and ANICLA Section 810. Input from the public hearings held January 28 through February 4, 2021 was considered during the planning process. Alternative E, the Proposed Plan, was developed from the range of alternatives, and development took the expressed concerns into account. Management that would address these concerns under Alternative E includes designating 21 ACECs covering 3,611,000 acres and not recommending revocation of public land withdrawals.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	33	Subsistence	212.0200.00	SOP SUB 1 & 2: Currently any kind of consultation or providing information to subsistence participants and affected communities is entirely optional. These provisions should be mandatory since further decisions may pose significant impacts to communities in the planning area. Further, BLM should provide for a Tribal Advisory Board akin to that of NPRA with membership from residents of affected villages and full funding to participate in regular meetings.	Thank you for your input. The BLM has been and remains committed to fulfilling the responsibility under ANICLA Section 810 to adequately inform subsistence users of the effects on them under the RMP and consider their comments. The BLM also remains committed to fulfilling the responsibility to engage in ongoing, meaningful consultation with interested tribes, including ongoing consideration of tribal input. While permittees would not always be required to provide information to and document consultation with potentially affected communities, neither would it be optional. As currently written the BLM authorizing officer would decide whether to require this of permittees, and this judgment would be based on the best available information, including input from potentially affected communities.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	43	Subsistence	212.0200.00	The landscapes and watersheds within the Central Yukon planning area provide critical subsistence resources to rural residents. For example, residents of Wiseman harvested an average of 294 pounds of wild food per capita in 2011 (Community Subsistence Information System, Alaska Department of Fish and Game). Rural Alaskans in 24 villages across the region rely on the sound management of our public lands to ensure the continuation of these subsistence opportunities. The right to continue a subsistence way of life is guaranteed by the Alaska National Interest Lands Conservation Act (ANILCA), which finds that "the situation in Alaska is unique in that, in most cases, no practical alternative means are available to replace the food supplies and other items gathered from fish and wildlife which supply rural residents dependent on subsistence uses" (ANILCA Section 801). The preferred alternative provides inadequate safeguards to subsistence resources throughout the planning area, as demonstrated by our previous comments on the impacts of intensive development activities on fish and wildlife habitat. The full revocation of PLO 5150 recommended in the preferred alternative, C2, would eliminate the federal subsistence priority for residents of Wiseman and Coldfoot if the State's topfiled lands become valid selections. The proposed revocations of the ANCSA d-1 withdrawals would result in the loss of the federal subsistence priority on 5.3 million acres of for rural residents, both Alaska Native peoples and non Native peoples. As mentioned previously, this is the opposite of ANILCA's intent. We strongly encourage the BLM to engage in additional consultation with rural residents, including Alaska Native villages. More meaningful protections to subsistence resources are offered in Alternatives A and B through ACEC designations; closures to mineral entry, leasing, and other surface-disturbing activities; and establishment of right-of-way avoidance and exclusion areas. To ensure compliance with Title VIII of ANILCA, we recommend maintaining PLO 5150 and the ANCSA d-1 withdrawals, and adopting management tools in the final RMP that are consistent with the legislation's direction that "the utilization of the public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands…" (ANILCA Section 802).	BLM has taken a large amount of input from interested parties into consideration. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of this input. Most relevant to this comment, Alternative E does not recommend revoking PLO 5150 or any other withdrawals.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	65	Subsistence	212.0200.00	The right to continue a subsistence way of life is guaranteed by the Alaska National Interest Lands Conservation Act (ANILCA), which finds that "the situation in Alaska is unique in that, in most cases, no practical alternative means are available to replace the food supplies and other items gathered from fish and wildlife which supply rural residents dependent on subsistence uses" (ANILCA Section 801). The preferred alternative provides inadequate safeguards to subsistence resources throughout the planning area, as demonstrated by our previous comments on the impacts of intensive development activities on fish and wildlife habitat. The full revocation of PLO 5150 recommended in the preferred alternative, C2, would eliminate the federal subsistence priority for residents of Wiseman and Coldfoot if the State's topfiled lands become valid selections.	BLM has taken a large amount of input from interested parties into consideration. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of this input. Most relevant to this comment, Alternative E does not recommend revoking PLO 5150 or any other withdrawals.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	66	Subsistence	212.0200.00	The proposed revocations of the ANCSA d-1 withdrawals would result in the loss of the federal subsistence priority on 5.3 million acres of for rural residents, both Alaska Native peoples and non Native peoples. As mentioned previously, this is the opposite of ANILCA's intent. We strongly encourage the BLM to engage in additional consultation with rural residents, including Alaska Native villages. More meaningful protections to subsistence resources are offered in Alternatives A and B through ACEC designations; closures to mineral entry, leasing, and other surface-disturbing activities; and establishment of right-of-way avoidance and exclusion areas. To ensure compliance with Title VIII of ANILCA, we recommend maintaining PLO 5150 and the ANCSA d-1 withdrawals, and adopting management tools in the final RMP that are consistent with the legislation's direction that "the utilization of the public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands…" (ANILCA Section 802).	Federal subsistence priority applies on all public lands per ANILCA 102(3). When a withdrawal is revoked, the management for subsistence does not extinguish. However, if the land is later conveyed or a State top filing becomes an effective State selection, these lands would no longer be considered public lands. Creating an administrative designation (or more meaningful protections) would not change these legal features of ANILCA.
National Wildlife Refuges	Koyukuk	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Northern Unit of Innoko National Wildlife Refuges	205	11	Subsistence	212.0200.00	All action alternatives recommend full revocation of PLOs 5173, 5179, 5180, 5184, and 5186 which would put Refuge and subsistence access and practices at risk adjacent to the Koyukuk Nowitna and Innoko NWR's and across the planning area. Full revocation of these PLOs would eliminate the protections described above if the State of Alaska top-filed lands in the planning area become valid selections and are conveyed. (BLM acknowledges in Appendix Q that Priority 1 selections are likely to be conveyed during the life of the plan). This loss of protection, combined with increased potential for development, poses considerable risk to subsistence resources in our region.	Alternative E, the Proposed Plan, was developed from the range of alternatives, and development took the expressed concerns into account. Alternative E would not recommend revocation of PLO withdrawals.
National Wildlife Refuges	Koyukuk	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Northern Unit of Innoko National Wildlife Refuges	205	16	Subsistence	212.0200.00	We are concerned about potential impacts to local subsistence fisheries without the recognition and management of ACECs, suitable WSR segments, lands with wilderness characteristics, PLOs, and appropriate restrictions on mining development, ROW, and other forms of surface disturbance in important watersheds in the vicinity of Koyukuk, Nowitna, and Innoko NWRs. Management of the following ACECs are important to protect known spawning areas for Chinook, chum and coho salmon, whitefish, sheefish, and other fish species: Huslia, Hogatza River Tributaries, Wheeler Creek, Klikhentotzna Creek, Indian River, Dulbi River, Sulukna River and Sethkokna River. Management of Sulukna, Dulby and Hogatza WSR segments would also protect these subsistence fishery resources. We recommend the following lands with wilderness characteristics identified in Alternative B be managed to protect wilderness character as priority over other uses for the protection of subsistence fisheries: Wheeler Creek, Hogatza River Tributaries, Klikhentotzna, Sulukna, and Sethkokna. Revocation of ANCSA PLO withdrawals 5173, 5179, 5180, 5184, and 5186 puts local subsistence fisheries at risk due to potential development in sensitive watersheds. Development and access restrictions described in Alternative B for the watersheds surrounding Koyukuk, Nowitna, and Innoko NWRs will generally support subsistence fisheries in this region.	Alternative E, the Proposed Plan, was developed from the range of alternatives, and development took the expressed concerns into account. Among other management, Alternative E would establish right-of-way avoidance and exclusion areas, would designate 21 ACECs covering 3,611,000 acres and would not recommend revocation of ANCSA 17 (d)(1) withdrawals.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	2	Subsistence	212.0200.00	Furthermore, full revocation of PLOs under Alternatives C2 and D would put subsistence access and practices at risk, possibly resulting in the loss of Federal subsistence opportunity, or priority, for rural residents. When these lands leave the Federal estate, the loss of protection, combined with increased potential for development, poses considerable risk to Federal trust and subsistence resources in the region	BLM has taken a large amount of input from interested parties into consideration. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of this input. Most relevant to this comment, Alternative E does not recommend revoking PLO 5150 or any other withdrawals.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	11	Subsistence	212.0200.00	We are generally concerned that the BLM has not adequately addressed impacts on the rural priority of subsistence users in the RMP. The planning decisions established in the RMP will establish goals and objectives for day-to-day and long-term management. If not managed properly, decisions made in this RMP will not only impact subsistence on BLM-managed land but also on adjoining CSUs. When lands are taken out of the Federal estate, those lands are no longer available for Federal rural priority subsistence activities conducted under Title VIII of ANILCA.	BLM has taken a large amount of input from interested parties into consideration. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of this input. Most relevant to this comment, Alternative E does not recommend revoking PLO 5150 or any other withdrawals.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	12	Subsistence	212.0200.00	We are concerned the RMP does not adequately address the impacts of changes in access on subsistence users that would result from land status changes under all action alternatives. For example, the following Federal subsistence positive customary and traditional use determination would be eliminated on lands turned over to State lands, which would impact the following rural communities: Stevens Village, Wiseman, Galena, Kobuk, Koyukuk, Tanana, Alatna, Allakaket, Anaktuvuk Pass, Hughes, Huslia, Nulato, Kaltag, Ruby, Rampart, Minto, Nenana, Lake Minchumina, and the qualifying residents within the game management units. Additionally, all action alternatives in the RMP will further fragment Federal land ownership, making access and understanding which harvest regulations are in effect more difficult and confusing for federally qualified subsistence users. Also, changes from Federal public lands to State lands within the Dalton Utility Corridor would result in increased OHV access to Artic, Kanuti, and Yukon Flats NWR lands. This increased OHV access area would not only impact the wildness of Refuge lands and those classified as Wilderness, it would also lead to increased competition between subsistence users and sports users for important subsistence resources.	BLM has taken a large amount of input from interested parties into consideration. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of this input. Most relevant to this comment, Alternative E does not recommend revoking PLO 5150 or any other withdrawals.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	13	Subsistence	212.0200.00	if PLOs are lifted, we request that they are replaced with an administrative designation for the same type of management that currently exists to protect subsistence activities under Title VIII of ANILCA. We also recommend that the BLM should have a goal of making sure there is not a confusing pattern of varying State/Federal jurisdiction in traditional subsistence areas.	Federal subsistence priority applies on all public lands per ANILCA 102(3). When a withdrawal is revoked, the management for subsistence does not extinguish. However, if the land is later conveyed or a State top filing becomes an effective State selection, these lands would no longer be considered public lands. Creating an administrative designation would not change these legal features of ANILCA.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	8	Subsistence	212.0200.00	As proposed, a federal rural subsistence priority would be removed from BLM lands transferred to the State of Alaska. The transfers would create a new patchwork of fish and wildlife harvest regulations. Adding new boundaries and jurisdiction will exacerbate confusion for rural subsistence users and even violations of federal or state laws.	BLM has taken a large amount of input from interested parties into consideration. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of this input. Most relevant to this comment, Alternative E does not recommend revoking PLO 5150 or any other withdrawals.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	9	Subsistence	212.0200.00	Stevens Village lies within the borders of the Refuge, and the Stevens Village Tribal Council's documented ancestral lands include an area administered by BLM (Stevens Village Council 1999). The federal positive customary and traditional use determination on these BLM lands, if transferred to the State, would be eliminated for residents of Stevens Village. Both Council and Dinyea Corporation members have expressed concerns to us that the preferred alternative will lead to motorized and non-motorized trespass on their lands and adjacent Refuge lands. They believe the alternative will also negatively affect their ability to continue traditional uses of their ancestral lands.	BLM has taken a large amount of input from interested parties into consideration. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of this input. Most relevant to this comment, Alternative E does not recommend revoking PLO 5150 or any other withdrawals.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	11	Subsistence	212.0200.00	We appreciate BLM's acknowledgement that, "The revocation [of PLO 5150] could also significantly impede residents' ability to harvest sufficient quantities of subsistence resources because they would be subject to State hunting and fishing regulations on lands in the outer corridor. Such limitations on the access and availability of subsistence resources would have a large impact on subsistence users." This statement from BLM supports comments made herein by USFWS regarding revocation of PLO 5150	BLM has taken a large amount of input from interested parties into consideration. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of this input. Most relevant to this comment, Alternative E does not recommend revoking PLO 5150 or any other withdrawals.
Fox	Joanna	U.S. Fish and Wildlife Service	Kanuti National Wildlife Refuge	208	3	Subsistence	212.0200.00	We urge BLM to reject the preferred alternative (C2), as well as Alternative D, as these two alternatives clearly offer the least protection to subsistence resources and practices throughout the planning area, as well as downstream and adjacent to it, in Kanuti NWR. Alternatives A and B offer protections to subsistence resources and uses through ACEC designations; closures to mineral entry, leasing, and other surface-disturbing activities, and establishment of right-of-way avoidance and exclusion areas. However, under all action alternatives including Alternative B, full or partial revocation of PLO 5150 would have a negative impact on subsistence access and practices in communities across the planning area. Of significant concern in this regard is the full revocation of PLO 5150 under Alternatives C2 and D, which would eliminate the federal subsistence priority for residents of Coldfoot and Wiseman if the State of Alaska's top-filed lands become valid selections and are conveyed (BLM acknowledges in Appendix Q that Priority 1 selections are likely to be conveyed during the life of the plan). This loss of protection, combined with increased potential for development, poses considerable risk to subsistence resources in our region. We recommend BLM work closely with Tribal partners to identify and protect lands, watersheds, and wildlife corridors of importance for subsistence use in the development of this plan. We also recommend BLM retain the PLO withdrawals in both the outer corridor upstream of Kanuti NWR and those ANCSA PLO withdrawals abutting the southeast corner of the Refuge as per Alternative A, or replace them with FLPMA withdrawals.	BLM has taken a large amount of input from interested parties into consideration. Alternative E, the Proposed Plan, was developed from the range of alternatives analyzed in the Draft RMP/EIS, in consideration of this input. Most relevant to this comment, Alternative E does not recommend revoking PLO 5150 or any other withdrawals.
Paul	Eugene	Bering Sea-Interior Tribal Commission	None	129	25	Subsistence	208.0900.00	The Bureau's analysis also underplays the adverse impacts to cultural and subsistence resources that would result from transfers of federal land to the state. Revocation of PLO 5150 will result in the transfer of the Dalton Highway Corridor to the state, removing subsistence priority for federally qualified subsistence users in 15 percent of subsistence use areas.99 In the Draft RMP, the Bureau acknowledged that community members would lose priority subsistence access on transferred lands.100 However, the agency failed to disclose and holistically evaluate how land transfers would impact cultural and subsistence resources, as well as Tribes' involvement in the processes designed to protect those resources. The Bureau, like all federal agencies, has a trust and statutory responsibility to Tribes and must engage in government-to-government consultation with Tribes when contemplating actions that may affect Tribal interests.101 99 Draft RMP and EIS at 3-184. 100 Id. at 3-185. 101 Exec. Order No. 13175, 65 Fed. Reg. 67,249, 67,249-50 (Nov. 6, 2000); 54 U.S.C. §§ 306101-306107, 306109-306114.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full), to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150. The BLM will continue to adhere to the provisions in the Programmatic agreement among BLM Alaska, ADNR, Alaska State Historic Preservation Officer, and the Advisory Council on Historic Preservation "Regarding Congressionally-authorized Land Transfers to the State of Alaska," signed in 2002.
Thorne	Rich	No organization name	None	5	3	Travel Management	209.0500.00	What, if anything, do the different alternatives do with RS2477 routes and access?	The RMP/EIS states that proposed management decisions would not affect valid existing rights; the RMP/EIS has been revised to clarify that in some cases valid existing rights can include RS 2477 routes, subject to adjudication.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Magee	Susan	State Of Alaska	None	165	30	Travel Management	209.0500.00	Management of RS 2477 Rights-of-Way and State Lands and Waters 1. RS 2477 Rights of Way (ROWs) – Issue: The plan does not appropriately recognize or map State RS 2477 ROWs in the planning area and applies management intent contrary to state management, thereby placing a cloud the State's title. * Proposed Resolution: Recognize the legal status of RS 2477s, map state-owned RS 2477s, and defer to state management in the ROWs. * Discussion: Throughout the planning area, the State owns numerous RS 2477 ROWs. See enclosed listing and map of the major RS 2477 ROWs that are state-owned. These state-owned property interests are not "federal lands" or "public lands" pursuant to the Alaska National Interest Lands Conservation Act (ANILCA), 16 U.S.C § 3101 et seq. See Sturgeon v. Frost, 139 S. Ct. 1066, 1081 (2019). Consequently, all such state-owned RS 2477 ROWs (identified on the attached list) should be identified as State property in the federal plan, and sole State ownership, management, and control must be clearly indicated. These State lands, like any other general domain State lands, are managed consistent with existing State statutes and regulations.20 20 Primarily Title 38 of the Alaska Statutes and Title 11 of the Alaska Administrative Code Any federal management decision that restricts usage on state-owned RS 2477 ROWs in any manner that is more restrictive or otherwise contrary to State management, prescribed in its generally allowable uses and otherwise, is contrary to law and places an unlawful cloud on State title that is actionable pursuant to the Federal Quiet Title Act, 28 U.S.C. 2409a et seq. To the extent that BLM disputes State ownership of identified RS 2477 ROWs within the planning area, IBLA precedent requires BLM to issue interim administrative determinations of such ROWs as an aspect of its duty to provide a rational basis for its decisions. See Homer Meeds, 26 IBLA 281 (1985); City of San Bernardino, 181 IBLA 1 (2011); Heath, 181 IBLA 114, 126-29 (2011); Kane County v. Kempthorne, 495 F. Supp. 2d 1143, 1145 (D. Utah 2007), aff"d sub nom. Kane Cty. Utah v. Salazar, 562 F.3d 1077 (10th Cir. 2009). Failure to follow this process outlined in these authorities represents a fundamental flaw in the CYRMP that will result in needless administrative appeal and federal judicial review. Table 2-20 (Travel and Transportation Management, page 2-55) and Section 3.3.5 (Travel Management, page 3-153) in the draft plan do not reference state-owned RS 2477s at all, despite repeated comments from the State requesting the BLM acknowledge and map these routes in the plan. We therefore assume BLM will maintain the same position it held for the numerous RS 2477s located in Bering Sea-Western Interior (BSWI) RMP planning area, that travel management decisions will be based on a purpose and need independent of the status of state-owned RS 2477s and that once an RS 2477 has been adjudicated, BLM will adjust its travel routes accordingly. However, like the BSWI RMP, the CYRMP includes numerous proposed actions (i.e., seasonal OHV restrictions in Alternatives B, C1 and C2) that could modify, restrict use, realign or eliminate state-owned RS 2477 ROWs long before the adjudication process is complete. In addition, even though RS 2477s are identified in the map legends and numerous trails are mapped, no RS 2477s have been identified on any of the maps that would make the public aware of how these proposed actions affect existing RS 2477 trails and routes, including the Coldfoot Chandalar trail, which has already been settled. 21 21 Alaska v. United States, Case No. 3:05-cv-00073-RRB (D. Alaska Jan. 8, 2007) (Coldfoot-to-Caro and Coldfoot-to-Chandalar RS 2477 rights-of-way). These routes benefit the public and the plan needs to recognize the State's rights and intentions to manage its RS 2477 ROWs. The routes should also be identified both on the plan maps and on the ground with appropriate signage, particularly for constructed routes. In prior land planning processes within the State of Alaska, BLM has repeatedly stated that: (1) Resource Management Plans (RMPs) are not the "appropriate" forum to adjudicate the validity of RS 2477 ROWs and (2) BLM will only recognize RS 2477 ROWs within the relevant planning area that have been	The RMP/EIS states that proposed management decisions would not affect valid existing rights; the RMP/EIS has been revised to clarify that in some cases valid existing rights can include RS 2477 routes, subject to adjudication.
Magee	Susan	State Of Alaska	None	165	35	Travel Management	209.0500.00	Highway is a crucial transportation corridor that provides access to the North Slope, adjacent CSUs, and recreational opportunities within the pipeline corridor. o Materials are needed for maintaining the Dalton Highway. o Climate change may make re-alignment of roads and airports necessary. * Resolution: o Recognize and plan for these important needs in the RMP and avoid less-flexible restrictive management in the corridor and beyond. * Discussion: The Alaska Department of Transportation and Public Facilities (DOT&PF) has just completed a draft of its Northwest Alaska Transportation Plan (NWATP), covering an area the size of California. This plan constitutes a step-down plan from the federally required Statewide Long Range Transportation plan, and addresses transportation issues, needs, gaps, and trends throughout the northwest portion of Alaska. The NWATP is currently in the final stages of revision. It should be included in Appendix D, section D.3.3 of the CYRMP. We request the CYRMP/EIS recognize and address the following: * Community connections are desired by communities throughout the planning area. One important issue identified by members of communities throughout the planning area was a strong interest in connections to the state road system, or at least to have opportunities to pursue connections, for the sake of lowering the cost of living and ability to continue living in traditional rural areas. Many observed the recent overland connection constructed from the Tofty Road to the south bank of the Yukon River at Tanana, and the significant cost savings Tanana residents are able to enjoy regarding freight and fuel through its use. One anecdote mentioned the cost of an interior door, that would have been over $600 to ship to Tanana, only costing $150 via the overland route. Because access is such a critical economic issue to Alaskans, the CYRMP needs to include information about RS 2477 ROWs and other forms of access easements (e.g., 17(b) easements, access rights reserved from land conveyances) in the plan area that may be of use in the future as access routes. Making the public aware of these important access corridors is important to their continued use. We suggest signing known RS 2477s and 17(b) easements within the corridor, so the public is aware of the potential to use them. * The Dalton Highway corridor is a crucial economic, freight, recreational and tourist corridor within the state, offering the only means of year-round access to several key CSUs, including the Arctic National Wildlife Refuge, Yukon Flats National Wildlife Refuge, Gates of the Arctic National Park and Preserve, and the National Petroleum Reserve-Alaska, as well as BLM managed recreational lands within the pipeline corridor area. Without this link operated and maintained in good condition, the ability of federal managers to manage these lands would be diminished. This should be emphasized in the CYRMP. * Material needed for Haul Road maintenance - DOT&PF requires access to materials sites, especially on the Dalton Highway corridor, to maintain public infrastructure in the Plan area. Appendix M, page 42 of the CYRMP discusses gravel sources and states that many potential gravel sites are in uplands, indicating that upland sources would be preferable to lowland sources due to a perceived decrease in impact on water quality. However, the quality of material from lowland sources is necessary for use in building and maintaining infrastructure critical to the state's economy. According to the DOT&PF's Dalton District Maintenance and Operations Superintendent, upland materials sources along the Dalton corridor are generally poor quality and not suitable for DOT&PF's maintenance activities. * The NWATP addresses a changing climate and the need for resiliency in transportation infrastructure. For the DOT&PF, protecting infrastructure can require realigning or relocating roads and airports, and the construction of evacuation routes. The more restrictive alternatives in the CYRMP (B, C1) appear to prevent or disrupt the ability to maintain transportation infrastructure in the planning area. A less restrictive alternative would	The RMP/EIS states that proposed management decisions would not affect valid existing rights; the RMP/EIS has been revised to clarify that in some cases valid existing rights can include RS 2477 routes, subject to adjudication.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Magee	Susan	State Of Alaska	None	165	36	Travel Management	209.0500.00	Arctic Strategic Transportation and Resources (ASTAR) Planning Initiative * Issue: The RMP inaccurately describes and analyzes the Arctic Strategic Transportation and Resources Plan as the ASTAR transportation network. It is instead a planning initiative conducted in cooperation with the North Slope Borough. * Resolution: o Accurately describe ASTAR and revise analyses that inaccurately identifies it as a transportation network. o Include a commitment in the plan that recognizes and authorizes the future infrastructure needs of communities in the planning area and the North Slope Region. * Discussion: Throughout Chapter 3 and in Appendix N, the draft CYRMP continues to inaccurately refer to and analyze the Arctic Strategic Transportation and Resources (ASTAR) plan as transportation network. For example, the "Reasonably Foreseeable Development" scenario describes ASTAR as follows: The Arctic Strategic Transportation and Resources (ASTAR) network is a proposed transportation network that would provide road access to towns and villages across the North Slope. It is still in the conceptual stage, and no firm mileage estimates have been published. (Appendix N, page N-13)) References to ASTAR as a transportation network are also found on pages 3-14, 3-19, 3-157, and 3-206. We advised BLM numerous times during the RMP planning process that this is an inaccurate description. **ASTAR is not a transportation network. It is a collaborative planning effort conducted by DNR in partnership with the North Slope Borough, which attempts to identify and evaluate opportunities that enhance the quality of life and economic opportunities in North Slope communities through responsible infrastructure development. The goal of ASTAR is to identify, evaluate, and advance community infrastructure and regional connectivity projects that offer the greatest cumulative benefits to the North Slope region. ASTAR will identify data gaps for these projects and may attempt to fill data gaps. Further, infrastructure does not only equate with roads. Other projects identified include school upgrades, washeterias, playgrounds, snow fencing, housing repairs, senior and teen centers, emergency response and many more. We request all references in the CYRMP to ASTAR as a transportation network, including references in any associated appendices, be removed.** During the development of the NPR-A Integrated Activity Plan (IAP)/EIS, North Slope stakeholders including the North Slope Borough, NPR-A communities, and the ASTAR team worked with staff at BLM to develop language for the NPR-A IAP that allowed for community needs/infrastructure even if that community need/project had not been identified at the time of planning. That language reads as follows: 2.2.1 Features Common to Multiple Alternatives Under all action alternatives, community infrastructure projects may be permitted, with appropriate mitigation measures, in areas closed to new infrastructure. A community infrastructure project is defined as an infrastructure project that responds to community needs, such as roads, power lines, fuel pipelines, and communications systems, and is owned and maintained by or on behalf of the North Slope Borough (NSB), city government, the State of Alaska, a tribe, or an ANCSA corporation. This exception applies across the NPR-A under all action alternatives unless otherwise noted in Table 2-3. (NPR-A IAP Final EIS, page 2-4) We request BLM consider a similar approach in the CYRMP to ensure that this plan does not unnecessarily restrict uses and opportunities for rural communities in the North Slope region and the Central Yukon planning area as a whole. Additional information about the ASTAR collaborative planning effort and the cumulative benefits of community projects/infrastructure is available on the following website: https://storymaps.arcgis.com/collections/b014760f7395481092afa454ab020d1c?item=1.	The analysis has been revised to clarify the nature of ASTAR as a "collaborative planning initiative" and its relevance to the BLM's proposed RMP, including as a reasonably foreseeable future action.
Kenning	Erik	Arctic Slope Regional Corporation	None	187	3	Travel Management	209.0500.00	As part of an overall North Slope transportation network, the Arctic Strategic Transportation and Resources (ASTAR) project must also be accounted for in this process. This project would also benefit from a co-location of routes with the NSB's CWAT project and any future transportation networks. ASRC recommends that BLM have detailed discussions with the NSB and the State on arctic overland transportation networks to facilitate the NSB and State's goal of better interconnection of the North Slope communities. As some of these possible routes are still to be defined, BLM should keep their isolated parcels on the North Slope open for multiple use to account for any future community connections, particularly with regards to the community of Anaktuvuk Pass	The BLM has and will continue to coordinate with stakeholders in the planning area. The BLM would also seek to collocate new linear ROWs under Alternatives B, C1/C2, and D. The BLM analyzed the ASTAR in the Draft RMP/EIS. The BLM's multiple use mission per FLPMA does not include setting land aside for future roadway connections.
Kenning	Erik	Arctic Slope Regional Corporation	None	187	4	Travel Management	209.0500.00	The draft documents refer to the "Road to Umiat" and this corridor is depicted on Map 2.34. This corridor has nothing to do with the Road to Umiat and in fact, this corridor does not even go to Umiat. This corridor represents a right-of-way granted to ASRC under Section 1431(j) of ANILCA. This error has very likely generated confusion and needs to be corrected as reviewers have been relying on inaccurate information provided by BLM	The EIS/RMP has been revised to clarify the proposed utility corridor.
Thorne	Rich	No organization name	None	5	10	Vegetation Communities and Plants	208.0400.00	"Annual invasive species inventory" - 43CFR3809, 3715, 3601: Who pays for these? Who wrote these regs? When? Are they new or newly revised? How detailed an inventory does this entail? (The City of Bettles does not have the wherewithal to conduct such an inventory along our winter road during the summer - it is outside our operating period.	The CFRs questioned in the comment are BLM regulations. Requirements for permit holders regarding invasive species will be permit specific based on the activity proposed.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	61	Vegetation Communities and Plants	208.0400.00	The Alaska Chapter appreciates the robust goals and objectives in Table 2-14 (pg. 2-40) that apply to all action alternatives and provide clear guidance to future managers that would minimize introduction and spread of NNIS. Chapter 3 (pg. 3-50) properly calls attention to three terrestrial plant species of concern (Melilotus alba, Vicia cracca, and Hordeum jubatum) that have infested the Dalton Highway, and have a high potential to spread into any areas that connect to the Dalton Highway via temporary or permanent ROWs. We also note that infestations of the aquatic plant Elodea canadensis have been found near Fairbanks, and E. nuttallii near Anchorage (USFWS 2020). These also have high potential to spread in the planning area and should be called out for special attention in a finalized Table 2-14 and in Chapter 3 of the RMP/FEIS.	Table 2-14 does not identify specific NNIS for BLM to manage in order to remain broadly applicable to all NNIS and thus management would apply to the species mentioned by the commenter. The species referenced and citation have been included in Chapter 3.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	62	Vegetation Communities and Plants	208.0400.00	We also appreciate that Appendix F specifies 17 separate SOPs aimed at minimizing introduction and spread of NNIS. In the last decade the Dalton Highway infestations have worsened (McMillan and Callear 2014), and Elodea has spread some distances outside of Fairbanks and Anchorage (USFWS 2020). All these species have potential to alter terrestrial and aquatic wildlife habitats. We recommend that BLM specifically require NNIS prevention, detection, and eradication as action items in Appendix L, Reclamation of surface-disturbing activities. We also recommend wording in SOP VEG/NNIS16 be changed from "The BLM may require modifications…critical habitat" to "The BLM will require modifications…critical habitat."	As stated in Section F.2, SOPs apply to all actions on public land. The SOPs identified in **Appendix F** were deemed sufficient to prevent the introduction and spread of NNIS in the planning area. SOPs would be modified or not implemented only in limited circumstances, as stated in **Appendix F**: "If a particular SOP is demonstrated to be not feasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered at the discretion of the Authorized Officer (AO)."
Gestring	Bonnie	Earthworks	None	146	41	Vegetation Communities and Plants	208.0400.00	We encourage the BLM to specifically require Non-Native Invasive Species prevention, detection and eradication in Appendix L for the reclamation of surface-disturbing activities. We also recommend that the wording in SOP VEG/NNIS16 be revised from "The BLM may require modifications…critical habitat" to "The BLM will require modifications…critical habitat."	As stated in Section F.2, SOPs apply to all actions on public land. The SOPs identified in **Appendix F** were deemed sufficient to prevent the introduction and spread of NNIS in the planning area. SOPs would be modified or not implemented only in limited circumstances, as stated in **Appendix F**: "If a particular SOP is demonstrated to be not feasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered at the discretion of the Authorized Officer (AO)."
Gestring	Bonnie	Earthworks	None	146	84	Vegetation Communities and Plants	208.0400.00	SOP VEG/NNIS-14 currently says that "Existing roads and trails will be used for access, where feasible…" a statement that does not clarify what situation creates an impossibility such that it is permissible to travel over otherwise pristine fish and wildlife habitat. This SOP should require a site-specific exception from the Authorizing Officer before allowing off-road or off-trail travel by motorized vehicles.	The language in the SOP allows for this exception through the term "where feasible."

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Rebarchik	Bob	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	150	9	Vegetation Communities and Plants	208.0400.00	NONNATIVE INVASIVE SPECIES (NNIS) * We know that nonnative invasive species already established in Alaska pose a significant threat to Refuges, and are pleased with BLM's recognition of NNIS in the Central Yukon RMP. Existing NNIs in the Dalton Highway corridor (including white sweetclover and bird vetch) pose a threat to Koyukuk NWR due to the potential for downstream spread. Additionally, we share BLMs concern for introduction into the planning area and subsequent spread to Koyukuk, Nowitna, and Innoko NWRs through introduction of NNIS as a result of development activities. We recommend that BLM consider that protection from the threat of NNIS establishment and spread further supports our request for protection of high-value watersheds through the recognition and management of ACECs, suitable WSR segments, WSRs, strategic PLO retention, and appropriate restrictions on mining development, ROW, and other forms of surface disturbance. We particularly ask for this level of protection from NNIS establishment in important watersheds that feed into Koyukuk, Nowitna, and Innoko NWRs.	The BLM has considered a range of alternatives in the RMP/EIS that provide the protection requested by the commenters. Consideration for this comment has been made in developing the Proposed Plan.
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	6	Vegetation Communities and Plants	208.0400.00	In SOP WEG/NNIS-1 the NNIS of concern "are all terrestrial and aquatic NNIS species identified by the BLM at the time of the permitted action. Planning, inventory, treatment, and monitoring are required for all permitted activities to ensure that the permitted (and associated) activities do not contribute to, or result in, the introduction, establishment, or spread of invasive species". This requirement would be onerous for most small operators as they do not have the professional staff or knowledge needed to inventory and monitor (since they likely will not be able to identify) terrestrial and aquatic NNIS. Most small operators, especially remote ones, would find hiring professional services to be cost prohibitive. This requirement should not be in the RMP. SOP VEG/NNIS-3 states that during activity "if NNIS of Concern are detected at any time during any permitted activity, the permittee will report to the BLM AO within 30 days of detection". Again, as explained for SOP VEG/NNIS-1, this is beyond what resources small operators have on site. Only very large projects that have the appropriate professional scientific staff or access to the appropriate consultants can follow this stipulation. This requirement should not be in the RMP. SOP VEG/NNIS-4 concerns eradication of NNIS. Of particular concern is that it states "for all projects where NNIS of Concern are detected (before, during, or after the permitted activity) and eradication is deemed necessary by the BLM, the permittee will have to present a plan. For how long into the future is a permittee liable for invasive species? This SOP should be revised to state that it no longer applies after the permitted activity has ended and the associated reclamation is completed. SOP VEG/NNIS-6 lists four conditions that would require projects have an Invasive Species Monitoring Plan. The list is so inclusive that it would include all mining Plan of Operations. The BLM will require an Invasive Species Monitoring Plan that describes post-activity monitoring and includes a Hazard Analysis Critical Control Point Evaluation. Many operations are off trails that are utilized by several different users. This could be recreational users, hunters, other miners, or cabin or property owners along a trail system. Invasive species, if found, could be brought in by any of these users, but the miner could end up being liable. That needs to be recognized by BLM to not burden the miner with a blanket liability. In addition, post activity monitoring could be overly burdensome for very remote operations. In SOP VEG/NNIS-15, the arbitrary criterion of "3 inches of snow water equivalent" should be removed. The amount of snow cover needed for cover in the overland movement of equipment will vary depending on the ground psi of the equipment being moved. Light equipment with a large footprint, such as low ground pressure (LGP) equipment may not need that much coverage. In SOP VEG/NNIS-16, the stipulation references its application to a "designated or proposed critical habitat". A proposed critical habitat should not be regulated as if it is a designated critical habitat.	As described in **Appendix F** of the Draft RMP/EIS, SOP WILD-1 may not be applied for all projects: "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
West	Jeri	Alyeska Pipeline Service Company	None	196	25	Vegetation Communities and Plants	208.0400.00	SOP VEG/NNIS-1 Forty years of monitoring vegetation growth along TAPS, including extensive studies prior to ROW Renewal, reveal that only rarely do NNIS plants take hold on undisturbed or restored natural ground due to the harshness of winter conditions, shallow active thaw zones that limit root development, presence of thick organic soil layers, absence of natural seed dispersal, etc. Consequently, most NNIS are not capable of invading beyond a limited footprint. This SOP should acknowledge that only the very few, if any, species that are proven to be harmful may be deemed "of concern" at the time of the permit action.	This language change is not needed to clarify the SOP.
West	Jeri	Alyeska Pipeline Service Company	None	196	28	Vegetation Communities and Plants	208.0400.00	Vegetation and Non-Native Invasive Species Alyeska has been working with the BLM to develop workable controls for non-native invasive species (NNIS) and we support BLM's efforts to manage and control invasive species when it is practical and effective to do so. On TAPS, NNIS populations are markedly sparse or absent beyond the perimeters of the material sites and roadways. BLM's approach to monitoring and controlling invasive species should prioritize the predominant species that cause negative impacts and can be reasonably and successfully controlled. This approach enables stakeholders to focus efforts and resources in the most effective and efficient manner. BLM's approach should also emphasize collaborative teamwork among stakeholders over enforcement-based measures. This approach promotes effective invasive species control measures and accommodates different stakeholder operations and accountability for the presence and spread of invasive species.	The BLM works with project proponents to develop an approach to NNIS control and monitoring. Detailed requirements will be agreed upon at the project level.
West	Jeri	Alyeska Pipeline Service Company	None	196	30	Vegetation Communities and Plants	208.0400.00	SOP VEG/NNIS-2 We read the SOP to put the BLM/AO in the lead role for acknowledgement and recommend that the SOP address species of critical concern instead of all non-native species. Additionally, there should be an allowance to forego such acknowledgement for insignificant and minor federal actions including existing permit/grant modifications such as many issued for TAPS such as when the crew active in the permit area is from a local pump station and not out of state.	As described in **Appendix F** of the Draft RMP/EIS, SOP WILD-1 may not be applied for all projects: "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
West	Jeri	Alyeska Pipeline Service Company	None	196	31	Vegetation Communities and Plants	208.0400.00	SOP VEG/NNIS-3 The deadline should be the calendar year-end or Nov 30, to accommodate BLM planning for the next construction season. Requiring 30-day notification during the short construction season adds a significant burden to the Permittee.	As described in **Appendix F** of the Draft RMP/EIS, SOP WILD-1 may not be applied for all projects: "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
West	Jeri	Alyeska Pipeline Service Company	None	196	32	Vegetation Communities and Plants	208.0400.00	SOP VEG/NNIS-4 Only in rare circumstances should the Permittee be required to conduct eradication, such as when it's clear that the Permittee's actions or operations resulted in the infestation. When culpability for the infestation is unclear, the BLM should lead eradication efforts in consultation with the pertinent Permittees and limit such decisions to critical species of concern.	As described in **Appendix F** of the Draft RMP/EIS, SOP WILD-1 may not be applied for all projects: "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
West	Jeri	Alyeska Pipeline Service Company	None	196	33	Vegetation Communities and Plants	208.0400.00	SOP VEG/NNIS-5 The approved Alyeska seed mix contains a non-native species. Red Fescue 50% is durable, does not spread to undisturbed areas, and effectively blocks the growth of other non-native species including NNIS. The SOP should accommodate continued use of the Alyeska seed mix.	As described in **Appendix F** of the Draft RMP/EIS, nonnative species may be approved for use at the project level: "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
West	Jeri	Alyeska Pipeline Service Company	None	196	34	Vegetation Communities and Plants	208.0400.00	SOP VEG/NNIS-6 It should be clarified that this SOP only applies to critical species of concern. The word "newly" should be inserted between "some" and "permitted" in the first sentence and between "all" and "permitted" in the second sentence to clarify that the proposed SOP would not apply to existing BLM permits/grants.	All SOPs would apply to newly permitted projects. Existing authorizations would proceed as they were previously authorized. The suggested change is not needed to clarify the SOPs.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
West	Jeri	Alyeska Pipeline Service Company	None	196	35	Vegetation Communities and Plants	208.0400.00	SOP VEG/NNIS-7 The SOP should only target critical species of concern per the comment under SOP 1 above.	As described in **Appendix F** of the Draft RMP/EIS, SOP WILD-1 may not be applied for all projects: "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
West	Jeri	Alyeska Pipeline Service Company	None	196	36	Vegetation Communities and Plants	208.0400.00	SOP VEG/NNIS-17 The SOP should be deleted as overly restrictive and duplicative of the other SOP's in the section Wildland Fire Management	As described in **Appendix F** of the Draft RMP/EIS, SOP WILD-1 may not be applied for all projects: "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
West	Jeri	Alyeska Pipeline Service Company	None	196	37	Vegetation Communities and Plants	208.0400.00	SOP VEG/NNIS-13 The SOP should be revised to allow the use of some of the organic mat removed for mining to facilitate revegetation elsewhere on TAPS operations. The sale of such material for use outside the pit can be included in the pertinent material sale contract	As described in **Appendix F** of the Draft RMP/EIS, SOP WILD-1 may not be applied for all projects: "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
Crockett	Deantha	Alaska Miners Association	None	199	18	Vegetation Communities and Plants	208.0400.00	No use of Boreal Ecosystems Analysis for Conservation Networks (BEACONS) benchmark as described in Appendices F and G for Alternatives B and C1. The BEACONS and related large areas in Connectivity Corridors give land managers the ability to alter the decisions made in the approved RMP with no public process, no public input and no NEPA process. It would allow land managers to make decisions inconsistent with this RMP. This could nullify the entire plan for areas designated as Connectivity Corridors.	As described in BLM's NEPA Handbook, Section 1.5, "All actions approved or authorized by the BLM must conform to the existing land use plan." If a proposed action does not conform to the RMP, a plan amendment would be required to allow the action.
Crockett	Deantha	Alaska Miners Association	None	199	57	Vegetation Communities and Plants	208.0400.00	F2.4 Vegetation and Nonnative Invasive Species (VEG/NNIS). In SOP WEG/NNIS-1 the NNIS of concern "are all terrestrial and aquatic NNIS species identified by the BLM at the time of the permitted action. Planning, inventory, treatment, and monitoring are required for all permitted activities to ensure that the permitted (and associated) activities do not contribute to, or result in, the introduction, establishment, or spread of invasive species". This requirement would be an extreme challenge for most small operators as they don't have the professional staff or knowledge needed to inventory and possibly monitor (since they likely won't be able to identify many) terrestrial and aquatic NNIS. And many small operators, especially remote ones, could find hiring professional services to be cost prohibitive. This SOP should be deleted, or only required for large projects.	As described in **Appendix F** of the Draft RMP/EIS, SOP WILD-1 may not be applied for all projects: "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
Crockett	Deantha	Alaska Miners Association	None	199	58	Vegetation Communities and Plants	208.0400.00	SOP VEG/NNIS-3 states that during activity "if NNIS of Concern are detected at any time during any permitted activity, the permittee will report to the BLM AO within 30 days of detection". Again, as explained for SOP VEG/NNIS-1, this is beyond what resources small operators have on site to identify. Only large projects that have professional scientific staff are capable of following this stipulation. This SOP should be deleted, or only on a case-by-case required for large projects.	As described in **Appendix F** of the Draft RMP/EIS, SOP WILD-1 may not be applied for all projects: "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
Crockett	Deantha	Alaska Miners Association	None	199	59	Vegetation Communities and Plants	208.0400.00	SOP VEG/NNIS-4 concerns eradication. Of particular concern is that it states "for all projects where NNIS of Concern are detected (before, during, or after the permitted activity) and eradication is deemed necessary by the BLM, the permittee will have to present a plan. For how long into the future is a permittee liable for invasive species? This SOP should be revised to state that it no longer applies after the permitted activity has ended and the associated reclamation is completed.	The plan referenced in the SOP would specify the timeframes involved for a given effort.
Crockett	Deantha	Alaska Miners Association	None	199	60	Vegetation Communities and Plants	208.0400.00	SOP VEG/NNIS-6 "Projects that require Invasive Species Monitoring Plans" is of particular concern. It includes: O ground disturbance greater than 2 acres O ground disturbance of more than 0.5 miles in total length O operations within waterways or involving water handling operations O Importation (from another part of the State or beyond) of equipment or substances, including weed-free seed, straw, gravel, topsoil, or mulch that could harbor invasive species This would include all mining Plan of Operations. The BLM will require an Invasive Species Monitoring Plan that describes post-activity monitoring and includes a Hazard Analysis Critical Control Point Evaluation. Many operations are off trails that are utilized by several different users. This could be recreational users, hunters, other miners, or cabin or property owners along a trail system. Invasive species, if found, could be brought in by any of these users, but the miner could end up being liable. That needs to be recognized by BLM to not burden the miner with a blanket liability.	As described in **Appendix F** of the Draft RMP/EIS, SOP WILD-1 may not be applied for all projects: "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
Crockett	Deantha	Alaska Miners Association	None	199	61	Vegetation Communities and Plants	208.0400.00	In SOP VEG/NNIS-15, the arbitrary criterion of "3 inches of snow water equivalent" should be removed. The amount of snow cover needed for overland movement of equipment will vary depending on the ground pound per square inch of the equipment being moved. Light equipment with a large footprint, such as low ground pressure (LGP) equipment may not need that much coverage. In SOP VEG/NNIS-16, the stipulation references its application to a "designated or proposed critical habitat". A proposed critical habitat should not be regulated as if it is a designated critical habitat.	The BLM would follow guidance in BLM Manual 6840 to manage designated and proposed critical habitats.
National Wildlife Refuges	Koyukuk	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	205	1	Vegetation Communities and Plants	208.0400.00	We recommend that BLM consider that protection from the threat of NNIS establishment and spread further supports our request for protection of high-value watersheds through the recognition and management of ACECs, suitable WSR segments, WSRs, strategic PLO retention, and appropriate restrictions on mining development, ROW, and other forms of surface disturbance. We particularly ask for this level of protection from NNIS establishment in important watersheds that feed into Koyukuk, Nowitna, and Innoko NWRs.	The BLM has considered a range of alternatives in the RMP/EIS that provide the protection requested by the commenters. Consideration for this comment has been made in developing the Proposed Plan.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	19	Vegetation Communities and Plants	208.0400.00	In light of existing threats in the corridor, we urge the BLM to more fully implement their existing integrated pest management plan for the Dalton Highway Corridor. We also advise the BLM to avoid potentially competing management options in the plan. For example, concerning "Water, Fish, and Riparian Vegetation," the BLM recommends for all action alternatives that "If nonnative invasive species (NNIS) are documented, develop a plan within 1 year for eradicating or controlling nonnative noxious species." While we agree with this objective, all the alternatives also propose revocations of PLOs that would result in these areas leaving the Federal estate, so the BLM would ostensibly lack the authority to develop, and certainly implement, such plans to prevent the establishment and spread of NNIS. Therefore, we are concerned about the threat of NNIS, especially as related to PLO 5150 and the Dalton Highway Corridor and other PLOs currently providing protection along riparian corridors, if these lands ultimately leave the Federal estate as a result of these revocations. We do not believe the DEIS adequately addresses the impacts from NNIS that may result from activities such as locatable mineral entry, placer mining, minerals disposal, ROW access, and forestry, that could occur in these areas because of these revocations without any ability for the BLM to develop or implement NNIS plans to address these threats.	Any potential actions that occur on lands if the PLOs are revoked are outside the jurisdiction of the BLM and would be speculative to analyze in the RMP/EIS. The BLM will only make decisions on lands that fall under BLM's jurisdiction (including subsurface minerals) and will implement NNIS plans while under BLM authority.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Fox	Joanna	U.S. Fish and Wildlife Service	Kanuti National Wildlife Refuge	208	15	Vegetation Communities and Plants	208.0400.00	We do recommend stronger language in the draft Central Yukon RMP to effectively prevent, control and eradicate NNIS. For example, substitute language like 1) "require" for "promote" regarding weed-free materials and 2) for nonenergy solid leasable minerals, change "would generally be expected" to "require" for NNIS inventories. We further recommend the plan specify invasive species early detection and rapid response, and eradication, if appropriate, as part of every multiple- use decision in the draft Central Yukon RMP. We especially advise BLM to avoid potentially competing management options in the plan. For example, concerning "Water, Fish, and Riparian Vegetation," BLM recommends for all action alternative that "If nonnative invasive species (NNIS) are documented, develop a plan within 1 year for eradicating or controlling nonnative noxious species." While we agree with this objective, should such areas overlap with lands ceded to the State because of revocation of PLOs, then BLM would ostensibly lack the authority to develop, and certainly implement, such plans.	Any potential actions that occur on lands if the PLOs are revoked are outside the jurisdiction of the BLM and would be speculative to analyze in the RMP/EIS. The BLM will only make decisions on lands that fall under BLM's jurisdiction (including subsurface minerals) and will implement NNIS plans while under BLM authority.
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	20	Visual Resources	208.1100.00	F.2.7 Visual Resource Management (VRM) This section is written using vague and undefined phrases to the extent that it is very uncertain as to what is being said or how this section is going to be used. As written, it should be deleted from the RMP.	The Visual Resource Management (VRM) section of the RMP/EIS utilizes VRI classes to form the basis for analysis of impacts. This methodology is common and appropriate for RMP-level discussion of impacts on visual resources.
Crockett	Deantha	Alaska Miners Association	None	199	43	Visual Resources	208.1100.00	Section 3.2.11 - Visual Resources. The Visual Resource Inventory (VRI) section and related policies in the Draft RMP are difficult to understand, including use of multiple similar-sounding terms, use of terms in uncommon ways, arbitrarily assigning "values" without clear basis, and using many pseudo-scientific terms that the average user of BLM lands cannot comprehend. Visual "components" include "scenic quality" (Class A, B or C), visual "sensitivity" (high, medium or low), "distance zones" (fore/middle, background, or seldom seen (which is not a "zone" but a temporal condition), inventory "Classes" (I, II, III, IV) and "Management classes" (I, II, III, IV and unclassified). These 18 different categories that represent subjective quality are then discussed in 4 pages of tables which purport to analyze how all possible future actions would "preserve the visual character of the landscape". "Future actions" of humans (cell towers, placer mining) are consistently presented primarily in a negative light. With human activity such as changes in "landforms, vegetation, color"…"the scenic quality of an area can be degraded". Fires, however, cause only "nuanced changes" in the visual character of the landscape". The visual resources discussion fails to recognize that significant natural conditions also change the visual landscape, such as seasonal vegetation changes, caribou migration, or landslides. All these categories are subjective and poorly defined. Much of the VR "inventory" was done by fixed wing plane. Without a complete log of the flight paths, there is no record of how any categories were assigned to any segment of the landscape, nor how any future "action" that could "damage" or "impact" the "scenic quality" assigned could be evaluated. The document refers users to an April 2016 internal BLM document for "additional information. In that document we are informed that having "a great deal of visual variety and contrast" is what rates a Class A. Who determines these ratings? Why are value judgments made by individual employees now to apply to all land users? This section should be revised to eliminate overly prescriptive restrictions on hypothetical future uses. Rather, it should provide general guidelines that can then be applied to project specific land use decisions.	The Visual Resource Management (VRM) section of the RMP/EIS utilizes VRI classes to form the basis for analysis of impacts. This methodology is common and appropriate for RMP-level discussion of impacts on visual resources.
Crockett	Deantha	Alaska Miners Association	None	199	44	Visual Resources	208.1100.00	The VRI Scenic Quality (Map 3.1.7) simply lists geographic regions - how is this a "quality "determination? VRI Distance Zones (Map 3.16) lists among the categories "seldom seen, hidden from view or not in foreground/middleground, or background visibility zones" - what does this mean? If something is neither in the fore-, middle-, or back-ground, it must by definition, be not visible (invisible). These terms are not readily understood by the average scientist, and certainly not by typical public users of BLM lands. VRI Sensitivity Levels (Map 3.1.8) establishes areas of "high, moderate and low" value to maintaining visual quality, but provide no explanation. Who decides that one area's visual quality is "more important" to maintain than another? Why may one side of a creek's visual quality be "impaired" but the other side is "important" to keep? To whom is this visual quality important? How were potential users of the land considered in these determinations? And what does "visual quality" consist of - to one user "quality" might be a view of spruce trees, to another a wide-open vista, to a third, paved trails for their wheelchair. Map 3.19 indicates areas of Class II, III and IV of a visual "inventory" with no legend, no indication of the source of the data, and no explanation of the missing Class I. Nowhere in the document is there any explanation of Map 3.19.	The visual resource inventory (VRI) process is described in the VRI report available online: https://eplanning.blm.gov/public_projects/lup/35315/154298/191364/Visual_Resource_Inventory.pdf.
Crockett	Deantha	Alaska Miners Association	None	199	67	Visual Resources	208.1100.00	F.2.7 Visual Resource Management (VRM) AMA is unclear as to BLM's goal in this section. With unidentified phrases and undefined terms, it is likely the general public remains confused as well. BLM should not set stipulations managing areas without clear language so that what is specifically being proposed is actually understood.	The Visual Resource Management (VRM) section of the RMP/EIS utilizes VRI classes to form the basis for analysis of impacts. This methodology is common and appropriate for RMP-level discussion of impacts on visual resources.
Cole	Jeanie	No organization name	None	32	14	Water Resources	208.0300.00	Does a lentic area include hot springs? If so then do all the restrictions on lentic areas apply to all the hot springs?	No, lentic areas do not apply to hot springs. Hot springs have their own set of plan components in the proposed Resource Management Plan revision.
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	12	Water Resources	208.0300.00	As noted in the Analysis of the Management Situation, water quality data are not available for most of the water resources in the planning area. Although no waterbodies have been listed on the Clean Water Act Section 303(d) list, the draft EIS discloses that some waterways are degraded and identifies past and ongoing activities that are known to degrade water quality (e.g., mining, rights-of-way, and off-highway vehicle use). The document further identifies the existence of "a declining trend in watershed condition on BLM-managed lands within the planning area due to authorization of surface-disturbing activities." Some additional detail is provided in the AMS, including identification of two specific creeks where monitoring occurred downstream of active mining operations and found exceedances of State of Alaska Water Quality Standards for turbidity. It is not clear from the AMS how many other waterbodies have been identified as experiencing water quality degradation in the planning area. Recommendations for the FEIS: * Provide additional detail regarding the identification of waterbodies experiencing water quality degradation, including the locations where degradation was observed (include specific waterbody names if available), as well as details regarding the observed condition. It may be helpful to include this information in a table as well as identifying degraded waterbodies on a map; * Discuss any site-specific mitigation that could be applied to improve conditions and prevent further degradation for the identified waterbodies; and * Include additional discussion of the declining trend in watershed condition, including specific locations where this trend was observed, and authorized activities that have contributed in each location.	No waterbodies have been identified for the Section 303(d) list on BLM managed lands within the Central Yukon Field Office. As stated, Gold and Marion Creeks have had recorded exceedances of the State of Alaska water quality standard for turbidity. Outside of these creeks, water quality data is not sufficient to determine trends on BLM managed lands within the planning area. **Appendix F** includes SOPs to protect watersheds and water quality. In addition, **Appendix H** includes aquatic and riparian resource desired conditions and objectives to follow for projects with potential to impact those areas.
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	13	Water Resources	208.0300.00	The analysis of impacts to water resources focuses on surface water resources and does not address the existing condition of groundwater in the planning area or the potential impacts on groundwater resources. Surface uses have the potential to impact groundwater quality through processes such as groundwater/surface water interaction and aquifer recharge. Fluid minerals development and locatable minerals mining also generally include belowground activities and are therefore of particular concern for groundwater impacts. Recommendations for the FEIS: * Characterize the existing condition of groundwater in the planning area. We recognize that detailed water quality information may be unavailable for most locations, and therefore recommend a general discussion of aquifer characteristics where appropriate; and * Analyze potential impacts to groundwater quality from future authorized uses.	The BLM added a discussion of groundwater to the affected environment.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	14	Water Resources	208.0300.00	The draft EIS and AMS identify waterbodies used for human water consumption as being of particular importance for water quality protection. The Nulato River is provided as an example of a waterbody used as a drinking water source. Identifying other waterbodies in the planning area that serve as sources of drinking water would provide critical information to help determine if any future authorized uses could degrade water quality and impact human health for communities relying upon these surface drinking water sources. Future authorized uses may also have the potential to impact groundwater quality, so identification of underground sources of drinking water currently utilized in the planning area would also provide useful information for reference when authorizing future activities. Recommendation for the FEIS: * Identify all surface water and groundwater sources of public drinking water supply in the planning area. Identify the location of drinking water sources on a map if possible; and * Disclose potential impacts to drinking water resources.	The BLM added data for the number of public drinking water systems and the source (surface or groundwater) to the affected environment. And the BLM added a discussion of drinking water systems to the impact analysis.
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	15	Water Resources	208.0300.00	The analysis of impacts to water resources includes some discussion of potential impacts to water resources from placer mining but does not disclose the potential impacts of a large locatable minerals mine. Mining activities have the potential to impact surface and groundwater quality during construction, operations, closure, and post-closure. Recommendation for the FEIS: Include an analysis of potential impacts to water resources from a large-scale locatable minerals mine.	Currently, there are no large, locatable mines within the Central Yukon Field Office. The Draft RMP/EIS analyzed the impacts of current placer mines that exist in the field office along with a description of areas open to development under each alternative. Text was added to the Proposed RMP/Final EIS that any proposed locatable mine would be subject to NEPA analysis, and any impacts would be identified and analyzed at that point.
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	16	Water Resources	208.0300.00	Protection of water quality during future use of the planning area is a key concern for EPA. We support the goals listed in Table 2-2 for maintaining the health of water, fish, and riparian vegetation. We also support the objective of maintaining water quality and preventing listing of impaired streams on the Clean Water Act Section 303(d) list. We note that water quality impairments can result from the cumulative impacts of multiple sources of water quality degradation, therefore preventing contributions from BLM-authorized activities would be a more appropriate objective than preventing impairments "resulting solely from BLM-authorized activities." Recommendation for the FEIS: Revise the first objective for Table 2-2 to read: "Maintain water quality to prevent the listing of any Clean Water Act, Section 303d, impaired streams on BLM lands, resulting in whole or in part from BLM-authorized activities.	The BLM is only able to manage impacts from activities under their authority and cannot mitigate for impacts from activities outside of their jurisdiction. The cumulative impact section for Water Resources includes discussion of activities outside of BLM jurisdiction primarily along the Dalton Corridor.
Gestring	Bonnie	Earthworks	None	146	28	Water Resources	208.0300.00	The DEIS describes the water resources within the planning area as "in a natural condition" with no human impacts on water quantity, quality, riparian function and stream stability. (DEIS, p. 3-34) This description appears to be contradicted by recent studies that find widespread impacts from climate change, including to water chemistry, temperature, stream stability and hydrology (see climate change section above) The DEIS water resources section (DEIS, p. 3-35) mentions the potential impacts of increased temperatures on lake drying and decreased water availability for transpiration, but it fails to describe the impacts of increased global warming on river and stream water temperatures. The DEIS also says that, "Overall impacts on water resources are uncertain, but a decrease in permafrost would affect levels of groundwater and river runoff and water chemistry (BLM 2016a)." Yet, the DEIS fails to say what those impacts to groundwater, river runoff and water chemistry would be.	Impacts to water resources due to climate change are discussed in Section 3.2.6, Fish and Aquatic Species, Climate Change.
Gestring	Bonnie	Earthworks	None	146	29	Water Resources	208.0300.00	The DEIS must take a hard look at the potential impacts to important water resources. a) impacts from hardrock mining The DEIS describes the potential adverse impacts to water resources from placer mining in the "Impacts Common to All Alternatives" section, but fails to describe the potential impacts to water resources from other types of hardrock mining. (DEIS, p. 3-39) Hardrock mining is a major industrial activity and the leading source of toxic releases in Alaska, according to the U.S. Environmental Protection Agency.31 31 U.S. EPA, Toxic Release Inventory, 2019. Even with modern technology, spills and other unapproved releases are common. A March 2020 report on the track record of impacts to water, land and air at all five major Alaska metal mines,32 found that: · 100% (5 out of 5) of the mines experienced at least one major spill or other accidental release of hazardous materials, such as mine tailings, cyanide solution, diesel fuel and ore concentrate, · 80% (4 out of 5) resulted in water quality impacts that often occurred over multiple years, · 80% (4 out of 5) have been identified by EPA as out of compliance with federal laws to protect clean air or water in the last three years, · 80% (4 out of 5) of the mines underestimated water quality impacts during the NEPA process, and · 40% (2 out of 5) resulted in metals pollution to public lands designated as National Monuments. 32 Earthworks et. al., "Alaska Metal Mines, "The track record of impacts to land and water from the failure to capture and treat mine pollution." March 2020. https://www.earthworks.org/cms/assets/uploads/2020/03/AK-MINE-POLLUTION-REPORT-2020.pdf	Currently, there are no large, locatable mines within the Central Yukon Field Office. The Draft RMP/EIS analyzed the impacts of current placer mines that exist in the field office along with a description of areas open to development under each alternative. Text was added to the Proposed RMP/Final EIS that any proposed locatable mine would be subject to NEPA analysis, and any impacts would be identified and analyzed at that point.
Gestring	Bonnie	Earthworks	None	146	31	Water Resources	208.0300.00	Research also demonstrates that NEPA analysis for hardrock mines regularly underestimate the impacts to land, air and water.33 33 Maest et al., "Predicted versus actual water quality at hardrock mine sites: effect of inherent geochemical and hydrologic characteristics." 2006. Available at: https://www.researchgate.net/publication/240610957_PREDICTED_VERSUS_ACTUAL_WATER_QUALITY_AT_HARDROCK_MINE_SITES_EFFECT_OF_INHERENT_GEOCHEMICAL_AND_HYDROLOGIC_CHARACTERISTICS1 A 2012 analysis of 14 out of 16 operating copper mines, accountable for 89% of U.S. copper production in the U.S., found that 92% failed to capture and control contaminated mine water, resulting in water quality impacts.34 34 Gestring, Bonnie, "U.S. Copper Porphyry Mines Report: The Track Record of Water Quality Impacts Resulting from Pipeline Spills, Tailings Failures and Water Collection and Treatment Failures," July 2012 (revised 11/2012); https://www.earthworks.org/cms/assets/uploads/2012/08/Porphyry_Copper_Mines_Track_Record_-_8-2012.pdf A 2017 report on the track record of 27 operating U.S. gold mines, accounting for 93% of U.S. gold production, found that 74% failed to capture and control mine influenced water, resulting in degradation of water resources.35 35 Gestring and Hadder, "U.S. Gold Mines Spills & Failures Report: The Track Record of Environmental Impacts Resulting from Pipeline Spills, Accidental Releases and Failure to Capture and Treat Mine Impacted Water, July 2017. Available at: https://www.earthworks.org/cms/assets/uploads/archive/files/publications/USGoldFailureReport2017.pdf Mining can result in substantial and lasting impacts and interfere with the dominant other uses and values of the land. These types of impacts are common occurrences at currently operating major mines in Alaska, and must be considered in this DEIS. Once these lands are opened to mineral entry, for example, the 1872 Mining Law allows individuals and companies to stake an unlimited number of mining claims and hold those claims indefinitely.	Currently, there are no large, locatable mines within the Central Yukon Field Office. The Draft RMP/EIS analyzed the impacts of current placer mines that exist in the field office along with a description of areas open to development under each alternative. Text was added to the Proposed RMP/Final EIS that any proposed locatable mine would be subject to NEPA analysis, and any impacts would be identified and analyzed at that point.
Gestring	Bonnie	Earthworks	None	146	32	Water Resources	208.0300.00	The DEIS should describe the potential impacts to water resources from hardrock mining, including the potential adverse impacts to water quality from uncontrolled wastewater, fugitive dust, metals leaching, acid mine drainage, spills and other accidental releases of tailings, processing chemicals, ore concentrate, and the release of untreated sewage from the associated mining or exploration "man camps," and any other water quality related impacts from mining.	Currently, there are no large, locatable mines within the Central Yukon Field Office. The Draft RMP/EIS analyzed the impacts of current placer mines that exist in the field office along with a description of areas open to development under each alternative. Text was added to the Proposed RMP/Final EIS that any proposed locatable mine would be subject to NEPA analysis, and any impacts would be identified and analyzed at that point.
Gestring	Bonnie	Earthworks	None	146	33	Water Resources	208.0300.00	The DEIS should also consider new research that finds lethal effects to coho salmon from quinone, a chemical that leaches out of tires.36 The DEIS should consider the potential effects to fish from runoff from the Dalton Highway and other roads in the planning area. 36 Tian et al., "A ubiquitous tire rubber-derived chemical induces acute mortality in coho salmon," Science, 2020, DOI: 10.1126/science.abd6951	The Draft RMP/EIS includes a discussion of water quality in the Field Office and where there are concerns. There have been no observations of fish die off or other impacts to fish populations in the planning area. If such an event is observed, additional research and management considerations would be considered at that time.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Gestring	Bonnie	Earthworks	None	146	38	Water Resources	208.0300.00	The DEIS must incorporate additional measures to better protect water resources. The BLM describes the adverse impacts to water quality and fish habitat from mining operations in its Analysis of Management Situation (AMS 2016): "In recent years, water quality meters have been installed above and below mining operations on Gold and Marion Creeks during open water periods when mining operations are active to determine if water quality standards are being met. These meters indicate that these streams (Gold Creek 2012 and Marion Creek 2013) have exceeded State of Alaska Water Quality Standards for turbidity especially during high flow events." (AMS p. 12) "In any given watershed, there will likely be discontinuous blocks of disturbed ground within the floodplains of the mined streams for as long as mining occurs. Though there is a known reduction in available fisheries habitat in mined streams, the full extent to which mining activities have impacted fish populations is unknown because pre-mining fisheries data are unavailable for many streams." (AMS, p. 50) The AMS forecasts that, "Mining operations will continue to degrade water quality due to loss of vegetation and sedimentation on a localized scale in some watersheds." (AMS, p. 18) It concludes that, "Since the signing of the Utility Corridor Plan Record of Decision (ROD) in 1991, and the Central Yukon ROD in 1986, disturbed watersheds within the planning areas that are managed primarily by the BLM have experienced downward trends in fish habitat condition. This is due in large part to a steady increase in development. Most of the impact is tied to locatable mineral extraction occurring along the Dalton Highway and at remote sites scattered throughout the planning area." (emphasis added)(AMS p. 50). The RMP states that SOPs will provide adequate protection, but this is contradicted by the AMS analysis above, and the current track record of notice level mining operations. It is also contradicted by the track record of major metal mines in Alaska, in which most of the currently operating major mines have violated water quality standards, often for multiple years.42 These mines demonstrate that existing state and federal laws and adaptive management practices are not preventing water quality impacts or providing for timely mitigation. 42 Earthworks et. al., "Alaska Metal Mines, "The Track Record of Impacts to land and water from the failure to capture and treat mine pollution." March 2020. https://www.earthworks.org/cms/assets/uploads/2020/03/AK-MINE-POLLUTION-REPORT-2020.pdf We appreciate the comprehensive set of 16 SOPS for water and fish in Appendix F (p. F-4 to F-6), however we encourage BLM to make these applicable to all notice level mining operations (those less than 5 acres) because they are a source of degradation. More importantly, the CYRMP should provide better protection for sensitive watersheds by a) reducing the acreage open to locatable mineral development; b) reducing the acreage open to ROW development; c) reducing the acreage of revoked PLOs and d(1) withdrawals d) establish FLPMA withdrawals in the most critical watersheds to replace any d(1) or PLO revocations. These recommendations are particularly important for watersheds that drain into the affected National Wildlife Refuges: Arctic, Innoko, Kanuti, Koyukuk, Nowitna, Selawik and Yukon Flats, as well as Gates of the Arctic and Denali National Park Units.	Comment noted. Any proposed mining operations would require additional NEPA analysis including identifying any impacts to streams, water quality, or fish species.
Gestring	Bonnie	Earthworks	None	146	40	Water Resources	208.0300.00	The DEIS provide information on groundwater and drinking water resources. The water resources section focuses on surface water resources, and does not address groundwater resources within the planning area, or the potential impacts on groundwater resources from mining or oil and gas development, and other potential activities. The DEIS and AMS should also identify water resources that are currently used for drinking water purposes. The DEIS should list and map these resources, and discuss the potential impacts to these resources from potential development.	The BLM added discussion of groundwater to the affected environment and included analysis of groundwater resources to the fluid and locatable impact analysis sections; added data for the number of public drinking water systems and the source (surface or groundwater) to the affected environment and added a discussion of drinking water systems to the impact analysis.
Gestring	Bonnie	Earthworks	None	146	83	Water Resources	208.0300.00	Section F.3.1, Standard Operating Procedures for Fluid Mineral Leasing, is less than a page in length and is missing a number of key elements. As an example, SOP MIN-LEA-1 covers process water and groundwater seeping into an operating area. This Standard Operating Procedure, or SOP, says that the liquids "must be treated appropriately prior to reentering the natural water system" and "One method is to use settling ponds." This SOP needs to be more specific regarding the pollutants that must be treated and regarding what "treated appropriately" means, i.e., to what concentration levels. Additionally, the SOP should require settling ponds to be constructed with impermeable liners to prevent settled pollutants from contaminating groundwater. A stipulation that is greatly needed and should be employed without exception would prohibit siting permanent mining or oil and gas facilities within the ordinary high water mark or the mean high water mark of water bodies to the outer edge of riparian vegetation or 500 feet, whichever is greater. This stipulation would help prevent degradation and contamination of waterbodies within the planning area.	The authorizing officer has discretion when applying these SOPs when an operator proposed a well pad. The SOPs provide the BLM Authorized Officer flexibility and discretion when reviewing individual projects while ensuring there are no adverse impacts to water quality. SOP WAT/FISH-3 prohibits drilling within the 100-year floodplain of fish-bearing streams. In addition, any oil and gas facilities placed near the ordinary high water mark of a stream would require a delineation and Clean Water Act permitting if impacts are anticipated to jurisdictional waters of the U.S. or wetlands managed by the US Army Corps of Engineers.
Magee	Susan	State Of Alaska	None	165	31	Water Resources	208.0300.00	Navigable Waters and Submerged Land * Issue: The plan has not identified state-owned navigable rivers granted to Alaska at Statehood. All management intent applicable to waters without regard for ownership of the submerged lands and waters clouds the State's title. * Resolution: Recognize the legal status of state-owned navigable waters in the planning area, map the rivers identified in the enclosed list and defer to state management of these waterbodies. * Discussion: The Equal Footing Doctrine of the United States Constitution, U.S. Const. art. IV, § 3, cl. 1, the Federal Submerged Lands Act, 43 U.S.C. § 1301 et seq., and the Alaska Statehood Act, 72 Stat. 339, Pub. Law 85-508 (1958), expressly provide (among other things) that the State of Alaska owns the submerged lands beneath each and every navigable-in-fact river or other waterway and beneath each and every navigable-in-fact lake or other waterbody that are located within its borders. State ownership of these submerged lands is indeed only defeated by valid pre-statehood federal withdrawals, and the vast amount of federal lands in Alaska represent post-statehood withdrawals pursuant to ANILCA, which do not defeat state title to the submerged lands that fully vested in 1959. A listing of major navigable-in-fact rivers and lakes within the planning area is enclosed.22 22 The enclosed list is not exhaustive, and the State reserves its right to assert ownership of all navigable-in-fact waters regardless of their presence or absence on this list. None of these listed rivers or lakes is subject to a valid pre-statehood withdrawal that would defeat state title. None are recognized in the plan as state-navigable rivers, including in BLM's wild and scenic river study conducted for the Central Yukon planning area (see also Wild and Scenic River Study comments). Pursuant to the unequivocal and unanimous decision of the United States Supreme Court, none of the submerged lands under these listed rivers and lakes constitute "federal lands" or "public lands" pursuant to ANILCA. See Sturgeon v. Frost, 139 S. Ct. 1066, 1081 (2019). These submerged lands rather represent the sole property of the State of Alaska and are subject to its sole management authority. Indeed, these submerged lands are managed by the State under Title 16, 27, 38, and 46 of the Alaska Statutes and Title 11 of the Alaska Administrative Code among others. It is therefore incumbent upon BLM to indicate state ownership of the submerged lands underneath the listed navigable-in-fact rivers and lakes within the planning area, and it is incumbent upon BLM to recognize and affirm in the RMP that Alaska has sole management authority and control over these navigable-in-fact rivers and lakes. A failure to do so is contrary to law; places an unlawful cloud on state title; results in a RMP that is fundamentally flawed; and will inevitably require appellate review-administratively and judicially. We anticipate that BLM will respond to the foregoing by reiterating that until BLM completes its navigability determinations on Alaskan rivers and lakes (BLM has only completed relatively few navigability determinations in the past sixty years and does not prioritize areas within federal planning areas), all rivers and lakes within the planning area should be "presumed" non-navigable and managed as non-navigable waters. See Testimony from Eastern Interior Subsistence RAC (Alaska) Meeting at pp. 265-74 (Oct. 16, 2019). This disregard of state property interests is wholly contrary to federal law, see, e.g., Alaska v. United States 201 F.3d. 1154 (9thCir. 1959); constitutes an unlawful cloud on state title pursuant to the Federal Quiet Title Act, 28 U.S.C. 2409a; represents bad faith as defined by law, see, e.g., Alaska v. United States, Case No. 3:12-cv-00114-SLG (D. Alaska May 3, 2016); and will undoubtedly result in administrative and judicial challenges.	The commenter's requested change is more appropriate to be determined during implementation of the RMP.

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Magee	Susan	State Of Alaska	None	165	32	Water Resources	208.0300.00	High-Value Watersheds (HVW) * Issues: o Insufficient supporting data for HVW designation justification; level of justification in the draft RMP/EIS is not commensurate with the immense geographic scale of the HVWs designations in the planning area. o RS 2477 GIS data is being used inappropriately to quantify the value and conditions associated with aquatic resources in order to place protections on watersheds that could preclude public use of trails. * Resolution: Remove HVW designation from the final RMP/EIS * Discussion: Existing State and federal laws and regulatory authorities already exist to protect the fishery and watershed resources within the planning area. In addition, GIS data for State RS 2477s is being used to quantify the value and condition of associated aquatic resources to place protections on watersheds that would preclude public use of trails (e.g., ROW exclusion and avoidance designations within 100-year floodplains of HVWs - Alternatives B and C1). It is inappropriate for BLM to use GIS data for RS 2477s to apply management that clouds the State's title and not use the same information to identify RS 2477s in the plan for the public's benefit. In the absence of sufficient supporting information, the State opposes applying restrictions to HVWs and requests that BLM remove them from the final RMP/EIS. See also above comments on ROW Avoidance and Exclusion Area Designations (Issue III, #4), where they are liberally applied to HVWs as associated management.	Description of the ARV and WCM are described in **Appendix H**, Sections H.2 and H.3. RS-2477's are only used in the watershed condition model and are not used in identifying high value watersheds in the Aquatic Resource Value model.
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	5	Water Resources	208.0300.00	F2.3 Watershed and Fisheries (WAT/FISH). These requirements are already regulated by the Alaska Department of Fish and Game under Alaska Statutes Title 16. This section is duplicative and should not be in the RMP. In SOP WAT/FISH-3, it is not practical nor necessary to prohibit drilling in the 100-year floodplain of fish-bearing rivers and streams, which would include most rivers and streams in Alaska. In many low gradient streams, the 100-year floodplain can encompass a major portion of a valley. Drilling is often the chosen method of exploration because it can be done with minimal impact. This stipulation should not be in the RMP. SOP WAT/FISH-15 states that "stream and marsh crossings are to be designed on at least 1 year of relevant hydrological data". Most streams in Alaska do not have 1 year of stream specific hydrological data. Appropriate project designs, including mitigation, can typically be determined based on existing information for a watershed without the need for time consuming and costly hydrologic data collection over an arbitrary (and potentially non representative) one-year period. Therefore, this stipulation should not be in the RMP.	See Section F.2 of **Appendix F** for a description of how SOPs are implemented. The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
Georgette	Susan	Selawik National Wildlife Refuge	None	201	3	Water Resources	208.0300.00	We strongly recommend that all upper Selawik River tributaries on BLM lands be identified as a high value watershed. Map 3.6 (Aquatic Resources) currently shows several of these tributaries as medium value watersheds or as having no special watershed value. Several of these tributaries are spring-fed, providing important base flow and more stable summer water temperatures, and all are upstream of one of only two sheefish spawning areas in northwest Alaska. Sheefish are a vitally important subsistence resource throughout much of northwest Alaska, contributing a significant component of the region's wild food harvest.	The watershed values are developed using a BLM protocol that takes into account the aquatic, physical, and biological characteristics of a watershed. They are developed using GIS data and other observations by BLM fisheries staff.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	3	Water Resources	208.0300.00	In the Central Yukon RMP, we ask that the BLM place a high priority on protection of water quantity and quality in watersheds and floodplains upstream of NWRs. We are highly concerned about potential impacts from future mineral and transportation permitting upstream of NWRs that could be allowed under this RMP. These actions could affect flow patterns, in-channel and floodplain habitats, including fish spawning, rearing, and overwintering areas on Refuges and federally managed fisheries. We are particularly concerned about additional impacts to water quantity and quality as a result of this RMP, because of the predicted decline in the conditions of the watersheds in the planning area due to climate change. The BLM acknowledges in the DEIS that "...wetland structure and function remain largely intact except along existing transportation routes; however, critical function is predicted to decline, primarily due to climate change" (page 3-57). Additionally, the BLM acknowledges that "...long-term evaluations show a declining trend in watershed condition and the associated functioning status of wetlands on BLM-managed lands within the planning area due to authorization of surface-disturbing land use activities" (page 3-57). We do not believe the DEIS adequately addresses the cumulative effects of the proposed actions that diminish water quantity and quality, especially in light of climate change. These actions will affect the ability of NWRs to both conserve fish, wildlife, and their habitats, as well as to provide adequate subsistence opportunity and resources. The alternatives proposed do not adequately recognize the importance of watershed health and water quantity and quality in providing for Federal rural subsistence on Federal lands. We therefore ask that the BLM recognize the importance of protecting water quantity and quality on BLM-managed watersheds that flow downstream to adjacent NWRs. The Service is aware that the BLM's determination of a watershed's fisheries "value" was based solely upon the lands and waters within the BLM jurisdiction. However, we ask for reconsideration. We ask that the BLM approach this decision on a landscape-wide and watershed-wide scale. We believe our success in managing NWR habitats to be productive for fisheries and wildlife, and the Federal rural subsistence opportunities and resources these support, depends upon the BLM providing the utmost consideration of tributary watershed impacts in the RMP. We ask that the BLM consider the importance of riparian vegetation that is strongly influenced by natural fluvial processes in the planning area, particularly if riparian development is permitted in Alternatives C1, C2, and D. Removal of soils and gravel and modification to the stream channel and flood plain during placer mining (surface mining) in the planning area increases the potential for sedimentation, changes in channel and floodplain morphology, and transport of contaminants downstream. These actions will directly impact NWR lands and Service trust resources downstream. We urge the BLM to take every measure possible to guarantee that water quantity and quality are maintained in BLM-managed watersheds that feed our NWRs and federally managed fisheries, including, pursuing new Federal Land Policy and Management Act (FLPMA) withdrawals in important watersheds and/or implementing mandatory conservation measures in these areas to minimize impacts from development activities. These actions are necessary to help NWRs meet purposes that are dependent on maintaining water quantity and quality; conserve fish, wildlife, and habitats in their natural diversity; fulfill treaty obligations with respect to salmon as part of the Yukon River Salmon Agreement under the Pacific Salmon Treaty; and provide for continued Federal rural subsistence opportunities and resources. The maps below demonstrate the watersheds in the Central Yukon RMP planning area that surround our Refuges (Figure 1, Figure 2, Figure 3). Figure 1. Watersheds encompassing the Kanuti National Wildlife Refuge and Yukon Flats National Wildlife Refuge. Figure 2. Watersheds encompassing the Koyukuk National Wildlife Refuge and Selawik National Wildlife Refuge. Figure 3. Watershed encompassing the Nowitna National Wildlife Refuge.	The BLM has the ability to manage activities only on its administered lands. The cumulative impacts section discusses the impacts of reasonably foreseeable activities on BLM lands combined with those activities anticipated outside of its jurisdiction and the potential impacts to downstream waterbodies. The RMP revision includes plan components to address and limit impacts to water quality for waterbodies within the planning area. In Appendices H and L, desired conditions, objectives, and reclamation requirements are described to ensure water quality, quantity, and stream stability are maintained.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	53	Water Resources	208.0300.00	Watershed Restoration Opportunities. The draft Plan (Sect. 3.2.6) states that "Riparian and aquatic habitat health in the planning area was evaluated at the watershed level (6th level hydrologic units) through development of a WCM." Since riparian and aquatic habitat health was evaluated via the Watershed Condition Model, and watersheds were identified that are "Functioning at Risk" or in an "Impaired Condition" (Map 3.8, Appendix A), we question why BLM did not identify restoration opportunities and set restoration priorities for these watersheds as addressed in the BLM Planning Handbook H-1601-1 in order to meet the desired conditions established in Appendix H. Timeframes for Reclamation. BLM did a good job laying out the interim benchmark objectives for Aquatic Habitat (Table L-1, Appendix L); however, the interim benchmark objectives should be met immediately following the implementation of an approved reclamation plan. There should be no need to have an additional time frame for achieving reclamation standards. Monitoring should take place over 3-5 years to ensure that the reclamation work was successful and that the established thresholds will be self sustaining over the long term. Land Use Planning Allocation Process. One of the desired conditions established in Table H-3, Appendix H is: Watersheds managed to closely approximate natural successional processes and hydrologic regimes (the frequency and magnitude of watershed disturbance match to the extent possible those that exist naturally.	Watersheds with the most anthropogenic impacts and opportunities are identified in the Watershed Condition Model.

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Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	55	Water Resources	208.0300.00	Requirement of Stream Channel Design for Reclamation. One of the measurable objectives listed in Table H-3, Appendix H, concerns stream channel design. The condition threshold given is as follows: stream diversions, bypasses, stream relocation, or stream reconstruction projects will be designed to achieve stable channel form, floodplain connectivity, bedform diversity, and riparian vegetation in proper functioning condition. No mention of stream channel design is made in Appendix L, Reclamation Requirements for all Surface Disturbing Activities. Understanding that successful stream reclamation is difficult under the best conditions, when attempted in the extreme environment commonly encountered within interior Alaska it can be especially challenging. To attempt to successfully achieve the interim benchmark objectives for aquatic habitat (Appendix L) without the benefit of a well-planned design would almost ensure failure. For this reason we see the inclusion of a requirement to use established methods for Natural Channel Design as presented in the National Engineering Handbook, Part 654, Stream Restoration Design (https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17807.wba) as being mandatory.	Added SOP WAT/FISH-17 to **Appendix F**: "Stream channel design for any stream diversions, bypasses, stream relocations, or stream reconstruction projects would be designed to achieve stable channel form, floodplain connectivity, bedform diversity, and ensuring riparian vegetation is in proper functioning condition as stated in the thresholds included in Appendix H, Aquatic and Riparian Resource Desired Conditions and Objectives."
Fox	Joanna	U.S. Fish and Wildlife Service	Kanuti National Wildlife Refuge	208	7	Water Resources	208.0300.00	We consider the entire Kanuti River drainage, including the Kanuti-Kilolitna River drainage, to be a "high value" watershed because of fisheries productivity, subsistence, and recreational values. Therefore, when making land-use planning decisions on the areas upstream of Kanuti NWR, we urge BLM to consider a larger, more holistic scope than is indicated by current analyses. We are aware that BLM's determination of a watershed's fisheries "value" was based solely upon the lands and waters within BLM jurisdiction. However, we ask for reconsideration. We ask that BLM approach this decision on a landscape-wide and watershed-wide scale. We ask that BLM recognize the importance of water quality and quantity maintenance on BLM-managed watersheds that flow downstream to adjacent Kanuti NWR lands and watersheds. BLM and FWS need to work more closely to guarantee the continuation of healthy spawning, rearing, and over-wintering fish habitats in the Kanuti and Kanuti-Kilolitna River watersheds.	The BLM has the ability to manage activities only on its administered lands. The RMP revision includes plan components to address and limit impacts to water quality for waterbodies within the planning area. The cumulative impacts section discusses the impacts of reasonably foreseeable activities on BLM lands combined with those activities anticipated outside of its jurisdiction and the potential impacts to downstream waterbodies. The watershed values are developed using a BLM protocol that takes into account the aquatic, physical, and biological characteristics of a watershed. They are developed using GIS data and other observations by BLM fisheries staff.
Costello	Naomi	Evansville Tribal Council	None	107	6	Wetland Resources	208.0500.00	-BLM claims that the "lack of designated special areas under Alternative C2 is, in some cases, mitigated by the introduction of ROW avoidance areas that protect specific high value wetland habitats" 11 -but ROW avoidance areas clearly do not provide the same level of protection as ACECs. 11 DEIS 3-63	The language within the RMP/EIS has been changed to "partially mitigated."
Costello	Naomi	Evansville Tribal Council	None	107	27	Wetland Resources	208.0500.00	There is currently no requirement to compensate for wetland loss. BLM should require a compensation plan to be approved by the AL prior to the action that results in wetland destruction. Such plan should provide for the restoration or creation of wetlands in the same watershed.	SOPs related to wetlands have been included in Sections F.2.2, F.2.3, and F.2.9 in **Appendix F**. As stated in Section 1.6, the BLM will be consistent with other laws as applicable, including the Clean Water Act. Compensation for wetland loss would be determined through compliance with that law.
Gestring	Bonnie	Earthworks	None	146	42	Wetland Resources	208.0500.00	The BLM preferred alternative does not adequately protect wetland resources across the planning region. Under the preferred alternative, BLM proposes to "manage 158,000 acres of the narrow band of BLM-managed lands that extends toward Venetie as ROW avoidance to focus on finding suitable collocations for any proposed ROWs, to mitigate impacts on moose habitat and fish spawning in this narrow corridor." However, more areas would be open to mining, and OHV travel, impacting many thousands of acres of additional wetlands. The additional protections mentioned under the preferred alternative would only be available in summer, in a region where permafrost degradation is increasing the length of season of open wetlands. The preferred alternative makes no specific recommendation for this increase in seasonality and persistence of wetlands, nor does the preferred alternative designate particular requirements for enforcing the wetlands restrictions in the preferred alternative. As identified in Alternative B, the study area includes millions of acres of wetlands and floodplains (ecological connected to wetlands). Given much of the planning region can be considered a wetland, floodplain, or upland region connected to a wetland through watershed geography, the BLM should include additional protections for more wetlands. In Alternative B, ROW exclusions are extended to 1,358,000 acres in high value watersheds. These high value watersheds should be protected with ROW exclusions. Any areas open to placer mining, which has been shown to adversely impact wetlands, should require adequate mitigation in the same ecological area, so that the impacts are remedied as part of any placer mining development. The proposed ACECs under Alternative B should be included because they include sensitive wetland areas important for fish, birds and other wildlife. BLM should recognize the limitations on available wetlands data, because less than 50% of Alaska's wetlands have been mapped and inventoried. As such, any agency action should include time for an inventory of wetlands across the planning region. BLM should relate the CY planning actions to the Alaska Wetland Technical Working Group statewide wetland inventory ten-year strategic plan that is in effect until 2029. A significant portion of the planning region does not have national wetlands inventory data available.46New data should be available under the NWI for portions of the planning area given the timeline in the statewide wetland inventory plan, so BLM should update its DEIS documents to include the new information about wetlands within the planning region.	Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public during the scoping process. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS. The action alternatives offer a range of possible management approaches for responding to planning issues and concerns identified through public scoping. While the goals are often the same across alternatives, each alternative contains a discrete set of objectives and management actions and constitutes a separate RMP with the potential for different long-range outcomes and conditions. Table 2-2 presents management for floodplains and wetlands across the alternatives. Impacts on wetlands are disclosed in Section 3.2.5 and impacts on floodplains are disclosed in Section 3.2.3. **Appendix F** includes numerous SOPs and stipulations related to wetlands and floodplains (see Sections F.2.2, F.2.3, F.2.4, F.2.9, F.2.13, F.3.2). With the application of the management in Table 2-2, SOPs, and stipulations, wetlands and floodplains would be protected to the extent they would meet statutory requirements. The BLM will incorporate new data as it is available and if it would substantially change the basis for an informed land use plan-level decision.
Gestring	Bonnie	Earthworks	None	146	43	Wetland Resources	208.0500.00	Placer mining has significant impacts on wetlands across Alaska.47 It has been recommended by federal agencies including USGS and BLM that baseline data can increase the information and understanding about impacts to wetlands from placer mining. We recommend that the final planning document include a water quality and quantity monitoring program be established for the watersheds that will be impacted. This could also include community input and data collection. 47 Madison, RJ. 1981. Effects of placer mining on hydrologic systems in Alaska-status of knowledge. US Geological Survey and Bureau of Land Management. https://pubs.usgs.gov/of/1981/0217/report.pdf	The requested monitoring program is not a planning-level decision and thus need not be developed at this time. The BLM can develop a water quality and quantity monitoring program during RMP implementation if deemed appropriate.
Gestring	Bonnie	Earthworks	None	146	44	Wetland Resources	208.0500.00	The BLM mentions the implications of compensatory mitigation to mitigate damages done to mining and other activities in the planning region. However, the state of Alaska and the Alaska District of the Army Corps of Engineers (ACOE) have not required adequate wetlands mitigation as part of most projects under joint governance decisions with EPA.48 Any final plan should address the inadequacies in compensatory mitigation mechanisms and address plans for mitigating wetland impacts in lieu of these challenges. 48 https://www.epa.gov/sites/production/files/201806/documents/epa_army_moa_alaska_mitigation_cwa_404_06-15-2018_0.pdf	Impacts from any potential actions that occur on lands outside the jurisdiction of the BLM and would be speculative to analyze in the RMP/EIS. The BLM will only make decisions on lands that fall under BLM's jurisdiction (including subsurface minerals) and would implement compensatory mitigation according to BLM's policies.
Gestring	Bonnie	Earthworks	None	146	45	Wetland Resources	208.0500.00	The DEIS fails to adequately address the challenges associated with wetlands degradation and the importance of these wetlands for migratory birds.	Section 3.2.7 of the RMP/EIS has been updated to include additional analysis of the impacts on migratory birds in relation to wetland impacts.

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Mannix	Jacob	Backcountry Hunters & Anglers	None	185	19	Wetland Resources	208.0500.00	Alaska BHA states that aquatic habitat is a necessary feature of a functioning ecosystem. Sufficient levels of in-stream flow, water quality and functioning wetlands are important for a variety of species including fish, waterfowl, shorebirds, a variety of mammals, invertebrates and plant life. It is also important to maintain quality water resources and wetland functioning to mitigate downstream effect outside of the planning area. Watersheds from the planning area drain into the National Wildlife Refuges, Arctic, Innoko, Kanuti, Koyukuk, Nowitna, Selawik, and Yukon Flats as well as two National Park/ Preserve Units, Gates of the Arctic and Denali. Alaska BHA is concerned by several statements made by the BLM in the DEIS regarding water resources, wetland habitat and fisheries and aquatic species: "a declining trend in watershed condition on BLM-managed lands within the planning area due to authorization of surface-disturbing activities" (DEIS, pg. 3-34) "BLM long-term evaluations described in the AMS show a declining trend in watershed condition and the associated functioning status of wetlands on BLM-managed lands within the planning area due to authorization of surface-disturbing land use activities." (DEIS, pg. 3-57) "Withdrawal of lands from locatable mineral entry likely provides the single most meaningful protection for fish and aquatic species and their habitats… Mining would likely result in sedimentation into waterbodies, which impacts fish and aquatic species through changes in water quality parameters" (DEIS, pg. 3-66) Preferred Alternative C2 does little to address the concerns of watershed degradation and may only exacerbate the problem by significantly increasing the amount of stream miles and land that is open to mineral entry (DEIS, Table 3-10 to 3-12, pg. 3-67 to 3-69). Alaska BHA does support the 16 Standard Operating Procudures (SOP) in the Draft RMP/ EIS (Appendix F, pg. F-4 to F-6) to help correct this problem. We would encourage the BLM to seek strict compliance with these SOPs and apply them to notice-level mining operations. Alaska BHA supports Alternative B as the best option for maintaining quality water resources with the application of the 16 SOPs mentioned above and a reduction of the total amount of acres of land and miles of stream available for mineral entry as shown in Alternative A.	The SOPs are planning-level decisions and would be applied at the implementation stage as appropriate.
Crockett	Deantha	Alaska Miners Association	None	199	76	Wetland Resources	208.0500.00	F.2.16 Ecological Benchmarks (BENCHMARK) We note that this is only in Alternatives B and C1. We understand this methodology has been used by BLM in the lower 48 as a management tool. With the lack of data bases in Alaska, it will be difficult to apply to a RMP.	Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public, including those related to ecological benchmarks. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A), Alternative C2, and Alternative D under which the ecological benchmarks would not be used. Components of several alternatives may be chosen including the omission of ecological benchmarks; these would be described in the Record of Decision for the RMP/EIS.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	5	Wetland Resources	208.0500.00	BLM recognized that "Locatable mineral extraction, ROWs, and mineral materials disposal would pose the greatest risk for permanent loss of wetlands."8. But then goes on to conclude that "Most of the decision area remains remote and inaccessible by road, which remains the most important reason for wetlands remaining intact."9. This cannot be true if all of the land is open to mineral entry. 8 DEIS M-134. 9 DEIS M-134.	The language within the RMP/EIS has been changed to clarify the intent of the conclusions.
Simon Jr.	Pollack	Tanana Chiefs Conference	None	200	36	Wetland Resources	208.0500.00	There is currently no requirement to compensate for wetland loss. BLM should require a compensation plan to be approved by the AL prior to the action that results in wetland destruction. Such plan should provide for the restoration or creation of wetlands in the same watershed.	SOPs related to wetlands have been included in Sections F.2.2, F.2.3, and F.2.9 in **Appendix F**. As stated in Section 1.6, the BLM will be consistent with other laws as applicable, including the Clean Water Act. Compensation for wetland loss would be determined through compliance with that law.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	42	Wetland Resources	208.0500.00	We applaud BLM for their consideration of floodplain and wetland protection at the planning level. We assume this planning level consideration stems from BLM's recognition of "a declining trend in watershed condition and the associated functioning status of wetlands on BLM managed lands within the planning area due to authorization of surface-disturbing land use activities" (draft Plan, Sec. 3.2.5). This statement acknowledges that trying to protect floodplains and wetlands through reactive management and the application of SOPs and other mitigation is not working. We recognize that inclusion of floodplain and wetland protections at the allocation level would be a proactive strategy. We believe such action would result in the best opportunity for avoiding the cumulative and foreseeable loss of floodplain and wetland function over time. We recommend that BLM establish the allocation of floodplain and wetland protections as a primary and foundational allocation from which all other resource use allocations would be derived as dictated by their compatibility with floodplain and wetland protection. Since the small amount of floodplain and lacustrine - associated wetlands account for <4%and <1% , respectively, of the decision area, we see this allocation (protection of floodplains and lacustrine wetlands) as being a practicable mechanism to minimize disturbance to these sensitive resources. We also see the allocation of wetland protection as being especially critical in areas where permafrost controlled wetlands may be irretrievably lost due to development activities. As shown in the draft Plan, BLM has proposed to open most, if not all of the lands within the decision area to conflicting uses (e.g. locatable mineral mining). BLM unfortunately proposes to protect floodplains and wetlands using a reactive management approach. This strategy applies various combinations of management prescriptions such as ROW exclusion or avoidance, reclamation objectives, and the discretionary application of Standard Operation Procedures (SOPs) to mitigate foreseeable impacts. Although ROW exclusions would help to alleviate impacts from certain activities, the application of these exclusions would not prevent impacts related to locatable mineral mining and other intensive land uses. Similarly, the application of reclamation objectives and SOPs under current management has not been successful in alleviating the continued downward trend in floodplain and wetland function (BLM AMS 2016). Thus, we believe the current application of floodplain and wetland protections across the range of action alternatives are insufficient to achieve statutory requirements The reasoning behind our request to establish floodplain and wetland protective allocations as a priority foundational allocation is that the various regulatory constraints mentioned previously restrict BLM's range of management discretion with regard to whether or not to protect floodplains and wetlands. Since policy restricts BLM's discretion related to the protection of floodplains and wetlands in comparison to the possible range of allocations that may be assigned to other uses such as mining, mineral leasing, timber harvest or OHVs we offer the following recommendation. Across all action alternatives, the area (acres) of floodplain and wetland protection be the basis around which all other allocations are made. The allocation of compatible uses or resources could overlap the allocation assigned to floodplain/wetland protection, and areas outside of floodplain and wetland areas could be allocated to non-compatible land uses as appropriate. In this manner, the requirements of EO 11990 and EO 11988 as outlined in the Water Resource Council (WRC) Guidelines in 43 Fed. Reg. 6030 1978, and adopted by Department of Interior in Departmental Manual, Part 520, Chapter 1, would be satisfied. The Service also believes that land use allocations conducted in this manner would be more easily understood by the reader and allow for the development of alternatives in which all components within an individual alternative are compatible (as outlined by BLM's planning handbook H-1601-1). In addition, smaller, more discrete allocations for intensive land development (e.g. mining) would fit well with the proposed use of the BEACONS adaptive management strategy. In	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM considers reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS. The action alternatives offer a range of possible management approaches for responding to planning issues and concerns identified through public scoping. While the goals are often the same across alternatives, each alternative contains a discrete set of objectives and management actions and constitutes a separate RMP with the potential for different long-range outcomes and conditions. Table 2-2 presents management for floodplains and wetlands across the alternatives. Impacts on wetlands are disclosed in Section 3.2.5 and impacts on floodplains are disclosed in Section 3.2.3. Appendix F includes numerous SOPs and stipulations related to wetlands and floodplains (see Sections F.2.2, F.2.3, F.2.4, F.2.9, F.2.13, F.3.2). With the application of the management in Table 2-2, SOPs, and stipulations, wetlands and floodplains would be protected to the extent they would meet statutory requirements.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	89	Wetland Resources	208.0500.00	We recognize that inclusion of floodplain and wetland protections at the allocation level would be a proactive strategy. We believe such action would result in the best opportunity for avoiding the cumulative and foreseeable loss of floodplain and wetland function over time. We recommend that BLM establish the allocation of floodplain and wetland protections as a primary and foundational allocation from which all other resource use allocations would be derived as dictated by their compatibility with floodplain and wetland protection. Since the small amount of floodplain and lacustrine - associated wetlands account for <4%and <1% , respectively, of the decision area, we see this allocation (protection of floodplains and lacustrine wetlands) as being a practicable mechanism to minimize disturbance to these sensitive resources. We also see the allocation of wetland protection as being especially critical in areas where permafrost controlled wetlands may be irretrievably lost due to development activities.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM considers reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS. The action alternatives offer a range of possible management approaches for responding to planning issues and concerns identified through public scoping. While the goals are often the same across alternatives, each alternative contains a discrete set of objectives and management actions and constitutes a separate RMP with the potential for different long-range outcomes and conditions. Table 2-2 presents management for floodplains and wetlands across the alternatives. Impacts on wetlands are disclosed in Section 3.2.5 and impacts on floodplains are disclosed in Section 3.2.3. Appendix F includes numerous SOPs and stipulations related to wetlands and floodplains (see Sections F.2.2, F.2.3, F.2.4, F.2.9, F.2.13, F.3.2). With the application of the management in Table 2-2, SOPs, and stipulations, wetlands and floodplains would be protected to the extent they would meet statutory requirements.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	90	Wetland Resources	208.0500.00	As shown in the draft Plan, BLM has proposed to open most, if not all of the lands within the decision area to conflicting uses (e.g. locatable mineral mining). BLM unfortunately proposes to protect floodplains and wetlands using a reactive management approach. This strategy applies various combinations of management prescriptions such as ROW exclusion or avoidance, reclamation objectives, and the discretionary application of Standard Operation Procedures (SOPs) to mitigate foreseeable impacts. Although ROW exclusions would help to alleviate impacts from certain activities, the application of these exclusions would not prevent impacts related to locatable mineral mining and other intensive land uses. Similarly, the application of reclamation objectives and SOPs under current management has not been successful in alleviating the continued downward trend in floodplain and wetland function (BLM AMS 2016). Thus, we believe the current application of floodplain and wetland protections across the range of action alternatives are insufficient to achieve statutory requirements	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM considers reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS. The action alternatives offer a range of possible management approaches for responding to planning issues and concerns identified through public scoping. While the goals are often the same across alternatives, each alternative contains a discrete set of objectives and management actions and constitutes a separate RMP with the potential for different long-range outcomes and conditions. Table 2-2 presents management for floodplains and wetlands across the alternatives. Impacts on wetlands are disclosed in Section 3.2.5 and impacts on floodplains are disclosed in Section 3.2.3. Appendix F includes numerous SOPs and stipulations related to wetlands and floodplains (see Sections F.2.2, F.2.3, F.2.4, F.2.9, F.2.13, F.3.2). With the application of the management in Table 2-2, SOPs, and stipulations, wetlands and floodplains would be protected to the extent they would meet statutory requirements.
Whitehill	Barry	No organization name	None	14	1	Wild and Scenic Rivers	211.0200.00	I see like sheep habitat in the upper Hodzana River; I don't think anything was addressed in regards to that. I, personally, float South Fork of Bonanza Creek, excuse me, to Fish Creek, to the South Fork. I think that is a drainage system like the Jim River and the Kanuti that could be evaluated for wild and scenic, and I don't think any of that was looked at.	The BLM conducted an initial inventory of planning area rivers to determine eligibility and suitability for inclusion in the NWSRS as part of the ANILCA. In the Report to the Secretary of the Interior for Potential Components of the NWSRS (BLM 2019b), Alaska was divided into six drainage subregions, with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. Most of the planning area is in the Yukon subregion (with the western portion located in the Northwest subregion) with 31 rivers identified for study. Of these 31 rivers, 11 are within the planning area. Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System. Per BLM Manual 6400, Wild and Scenic Rivers manual, one of the suitability criteria includes the estimated cost of acquiring necessary lands or interests in land within the corridor, as well as the cost of administering the area, should it be added to the National System.
Chu	Rebecca	U.S. Environmental Protection Agency	None	67	20	Wild and Scenic Rivers	211.0200.00	Eleven rivers in the planning area were found eligible for inclusion in the National Wild and Scenic River System, based on current management and existing conditions. Under Alternative B, these segments would be found "suitable" for inclusion in the NWSRS and would continue to be maintained to protect free-flowing condition, Outstandingly Remarkable Values, and adequate water quality. Under the remaining action alternatives, including the preferred Alternative C2, the BLM would determine all 11 river segments "not suitable for inclusion in the NWSRS" and would no longer manage them for protection of ORVs. The basis for determining that the segments are "not suitable" is not clear from the draft EIS. Protection of the free-flowing nature, water quality, and other identified ORVs provides potential benefits for watershed condition as well as for subsistence use of the eligible river areas. While the draft EIS provides a discussion of overlapping protections under Alternatives C1, C2, and D for other resources that could result in the maintenance of some of the values that led to the identification of the rivers as "eligible," the potential impacts of finding the segments "not suitable" are unclear. For example, it is not clear what portion of each river would be without relevant protections. Further, the level of detail is not sufficient to understand what the potential impacts would be on specific ORVs for the eligible segments. Recommendations for the FEIS: * Provide the specific basis for finding each of the 11 river segments "not suitable" under Alternatives C1, C2, and D; * Provide additional analysis of the potential impacts of discontinuing management to protect ORVs, including what portion of the river segment would be without protection resulting from other management prescriptions, and what the resulting impacts on specific ORVs would be for each eligible segment; * Include detailed analysis, in an appendix if appropriate, and summarize the results of the analysis in the body of the final EIS; and * Consider whether any eligible rivers should be found "suitable" under the preferred alternative in the final EIS.	The BLM conducted an initial inventory of planning area rivers to determine eligibility and suitability for inclusion in the NWSRS as part of the ANILCA. In the Report to the Secretary of the Interior for Potential Components of the NWSRS (BLM 2019b), Alaska was divided into six drainage subregions, with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. Most of the planning area is in the Yukon subregion (with the western portion located in the Northwest subregion) with 31 rivers identified for study. Of these 31 rivers, 11 are within the planning area. Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System. Per BLM Manual 6400, Wild and Scenic Rivers manual, one of the suitability criteria includes the estimated cost of acquiring necessary lands or interests in land within the corridor, as well as the cost of administering the area, should it be added to the National System.

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Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	63	Wild and Scenic Rivers	211.0200.00	We appreciate that the BLM considered 11 rivers and 603 river-miles as suitable for designation under the Wild and Scenic Rivers Act in Alternative B (Table 2-9, pg. 2-34). We believe that the ½-mile riparian buffer strip that could be afforded by eventual Wild and Scenic River designation, and current interim management, would be valuable to providing for future wildlife habitat connectivity along important water courses. As noted above, the riparian zone is most productive for wildlife. Especially in the northern portions of the planning area, some of the best avian forest and tree cavity nesting sites occur within the riparian zone. We are concerned about the recommended action in Alternatives C1, C2, and D to "Determine all 11 eligible stream segments as not suitable for inclusion in the National Wild and Scenic River System and release them from interim management protections." We are concerned that such permanent action could cause harm to and reduce future resiliency in the face of climate change. We also note that the RMP/DEIS did not propose a reasonable range in the C1/C2 Alternatives. The blend/balanced alternatives should have at least included some suitable determinations. A fair range would be 5-6 Rivers in Alternative C1 and 2-3 rivers in Alternative C2, with zero rivers in Alternative D. We would prefer selection of a final alternative similar to the Alternative B-level of 11 rivers, 603 miles for WSR designation in the Final RMP/FEIS. If a mid-level compromise is required, then we recommend at least six rivers and 300 miles be approved for continued interim management of WSR qualities. In our judgement the six rivers most important for wildlife and fish habitat, and most threatened with development during the life of this plan are: Atigun, Dietrich, Jim, Kanuti, Kilolitna, and Mathews.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated a reasonable range of alternatives that considered designating wild and scenic river segments as suitable for inclusion in the National Wild and Scenic Rivers system.
Schauer	John	No organization name	None	105	3	Wild and Scenic Rivers	211.0200.00	Of particular concern to me as an Alaskan, a paddler, and wilderness recreation enthusiast is that Alternative C2, which BLM has identified as the "Preferred Alternative" does not include priorities for managing any of 603 miles of the 11 river segments identified as eligible for inclusion in the National Wild and Scenic Rivers system. BLM has determined that each of these rivers possess one or more outstandingly remarkable values (ORVs) that make them eligible. Under Alternative A (no action) and Alternative B, 603 miles of these rivers, even if not formally designated as Wild and Scenic rivers, would continue to be managed to protect their qualities that make them suitable for inclusion in the National Wild and Scenic River system. These conditions include free-flowing condition, "ORV's" (Outstanding Remarkable Values), and adequate water quality. Continuing current management would not diminish these qualities. However, the preferred alternative (C2) does not include management plans to maintain these ORVs, and it determines all 11 rivers as "unsuitable" Wild and Scenic Rivers. No adequate documentation of that inventory process exists to make such an "unsuitable" determination. In fact, the ORVs of these river segments which have only been partially catalogued, make all of them suitable for inclusion ad they should be continued to be managed to preserve those values.	The BLM conducted an initial inventory of planning area rivers to determine eligibility and suitability for inclusion in the NWSRS as part of the ANILCA. In the Report to the Secretary of the Interior for Potential Components of the NWSRS (BLM 2019b), Alaska was divided into six drainage subregions, with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. Most of the planning area is in the Yukon subregion (with the western portion located in the Northwest subregion) with 31 rivers identified for study. Of these 31 rivers, 11 are within the planning area. Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System. Per BLM Manual 6400, Wild and Scenic Rivers manual, one of the suitability criteria includes the estimated cost of acquiring necessary lands or interests in land within the corridor, as well as the cost of administering the area, should it be added to the National System.
Schauer	John	No organization name	None	105	4	Wild and Scenic Rivers	211.0200.00	Studies of these rivers have not been performed in a sufficient depth or detail as required by BLM Manual 6400 " Wild and Scenic Rivers - Policy and Program Direction for Identification, Evaluation, Planning, and Management (Public). " Neither the The Executive Summary and Chapters 1-3, the April 2016 CYMP Analysis, Appendix M, or Map 2-10 provide current and detailed information sufficient to eliminate the protection of their free-flowing state, water quality, and ORV's . The PDF map 2-10 is of inadequate quality to even determine the specific stretches of these rivers. The online GIS Datasets linked from the BLM NEPA Register (http:// sdms.ak.blm.gov/isdms/imf.jsp?site=sdms) does not include layers showing eligible WSR's within the plan area.	The BLM conducted an initial inventory of planning area rivers to determine eligibility and suitability for inclusion in the NWSRS as part of the ANILCA. In the Report to the Secretary of the Interior for Potential Components of the NWSRS (BLM 2019b), Alaska was divided into six drainage subregions, with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. Most of the planning area is in the Yukon subregion (with the western portion located in the Northwest subregion) with 31 rivers identified for study. Of these 31 rivers, 11 are within the planning area. Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System. Per BLM Manual 6400, Wild and Scenic Rivers manual, one of the suitability criteria includes the estimated cost of acquiring necessary lands or interests in land within the corridor, as well as the cost of administering the area, should it be added to the National System.
Schauer	John	No organization name	None	105	5	Wild and Scenic Rivers	211.0200.00	There has simply not been adequate study or justification as required in BLM Manual 6400 to determine that all of these eligible WSR river segments are not suitable as WSR's. For most of these rivers, especially those that can be accessed from the Dalton highway, there is very little recreational use data available. Rivers in which visitor access is primarily through air charters are easier to estimate use than those in the CYMP study area. USFWS appears to have conducted much more thorough visitor use studies of areas that are accessed from BLM managed land in the study area such as the section of the Atigun between the upper Atigun and the Sagavanirktok.	The BLM conducted an initial inventory of planning area rivers to determine eligibility and suitability for inclusion in the NWSRS as part of the ANILCA. In the Report to the Secretary of the Interior for Potential Components of the NWSRS (BLM 2019b), Alaska was divided into six drainage subregions, with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. Most of the planning area is in the Yukon subregion (with the western portion located in the Northwest subregion) with 31 rivers identified for study. Of these 31 rivers, 11 are within the planning area. Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System. Per BLM Manual 6400, Wild and Scenic Rivers manual, one of the suitability criteria includes the estimated cost of acquiring necessary lands or interests in land within the corridor, as well as the cost of administering the area, should it be added to the National System.

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Schauer	John	No organization name	None	105	6	Wild and Scenic Rivers	211.0200.00	Segments of the Jim, Dietrich, and Middle Fork of Koyukuk are also readily paddled from the Dalton Highway. "The preferred alternative proposes no suitable Wild and Scenic Rivers. Lands with wilderness characteristics (LWCs) would be managed to emphasize other multiple uses as a priority over protecting wilderness characteristics." I have searched extensively through the thousands of pages of documents included in the BLM National NEPA Register. I have found no evidence of or documentation of any studies that justify the determination of any of the eligible river segments as "unsuitable" for inclusion, as Alternatives C1, C2, and D would propose. They are all in fact suitable.	The BLM conducted an initial inventory of planning area rivers to determine eligibility and suitability for inclusion in the NWSRS as part of the ANILCA. In the Report to the Secretary of the Interior for Potential Components of the NWSRS (BLM 2019b), Alaska was divided into six drainage subregions, with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. Most of the planning area is in the Yukon subregion (with the western portion located in the Northwest subregion) with 31 rivers identified for study. Of these 31 rivers, 11 are within the planning area. Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System. Per BLM Manual 6400, Wild and Scenic Rivers manual, one of the suitability criteria includes the estimated cost of acquiring necessary lands or interests in land within the corridor, as well as the cost of administering the area, should it be added to the National System.
Mayo	Gail	Arctic Audubon Society	None	124	4	Wild and Scenic Rivers	211.0200.00	WILD AND SENIC RIVERS. Plan A and B are the only a alternatives that include the acceptance of the 11 nominated wild and scenic rivers. The BLM favored alternative, C2, provides for no recognition of any of these nominated rivers. This seems to dismiss the possibilities for any of these specially chosen wild water ways. We feel that these 603 miles of river with the 0.5 mile buffer strips are important habitats to protect. These rivers provide riparian habitat, known to help provide for a diversity of plant and animals, as well as protected connections between areas that could be important for migratory mammals.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated a reasonable range of alternatives that considered designating wild and scenic river segments as suitable for inclusion in the National Wild and Scenic Rivers system.
Fields	Representative Zack	No organization name	None	133	1	Wild and Scenic Rivers	211.0200.00	We are writing to express our concern that the Bureau of Land Management's preferred alternative (C2) for the Central Yukon Planning Area would cease managing numerous rivers as Wild and Scenic. Eliminating Wild and Scenic management could undermine recreational tourism in the region, with negative impacts on local business owners and local residents who visit these watersheds. As you know, public lands and waters throughout the Central Yukon Planning Area are a prime destination for travelers from within Alaska, and for visitors who recognize the unique attributes of Alaska's public lands. Whatever alternative the agency ultimately chooses, rivers in the planning area should continue to be managed in a manner that protects these waters' character through Wild and Scenic management, both because of positive impacts on local recreation opportunities and impact on the outdoor recreation industry.	The BLM's policy goal for eligible and suitable rivers is to manage their free-flowing condition, water quality, tentative classification, and any ORVs to assure that a suitability decision can be made for eligible rivers or, in the case of suitable rivers, until Congress designates the river in the National Wild and Scenic Rivers System or releases it for other uses. Under all alternatives, the BLM would maintain free-flowing characteristics of eligible river segments and ensure that authorized uses comply with all stated objectives. Management actions that prohibit surface-disturbing activities, would provide varying protections for ORVs. This would also ensure that the free-flowing condition of the river remains intact. There are other management actions in Chapter 2, such as restrictions on use, Proper Functioning Conditions, water quality standards, etc. that provide protections to these resources, regardless of WSR designations.
Hopkins	Representative Grier	No organization name	None	133	1	Wild and Scenic Rivers	211.0200.00	We are writing to express our concern that the Bureau of Land Management's preferred alternative (C2) for the Central Yukon Planning Area would cease managing numerous rivers as Wild and Scenic. Eliminating Wild and Scenic management could undermine recreational tourism in the region, with negative impacts on local business owners and local residents who visit these watersheds. As you know, public lands and waters throughout the Central Yukon Planning Area are a prime destination for travelers from within Alaska, and for visitors who recognize the unique attributes of Alaska's public lands. Whatever alternative the agency ultimately chooses, rivers in the planning area should continue to be managed in a manner that protects these waters' character through Wild and Scenic management, both because of positive impacts on local recreation opportunities and impact on the outdoor recreation industry.	The BLM's policy goal for eligible and suitable rivers is to manage their free-flowing condition, water quality, tentative classification, and any ORVs to assure that a suitability decision can be made for eligible rivers or, in the case of suitable rivers, until Congress designates the river in the National Wild and Scenic Rivers System or releases it for other uses. Under all alternatives, the BLM would maintain free-flowing characteristics of eligible river segments and ensure that authorized uses comply with all stated objectives. Management actions that prohibit surface-disturbing activities, would provide varying protections for ORVs. This would also ensure that the free-flowing condition of the river remains intact. There are other management actions in Chapter 2, such as restrictions on use, Proper Functioning Conditions, water quality standards, etc. that provide protections to these resources, regardless of WSR designations.
Whitehill	Barry	No organization name	None	137	7	Wild and Scenic Rivers	211.0200.00	Alternatives C1, C2 and D do not represent a blend of Alternatives and clearly puts development priorities over resource protection. I urge the BLM to consider Alternative B as the most suitable alternative for the final RMP regarding Wild and Scenic Rivers. In fact, there is a river segment that I have floated that I believe is worth evaluating as well - South Fork of Bonanza Creek to Fish Creek to South Fork of the Koyukuk that is a lovely Class I-II wild experience.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation.The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c).The BLM conducted an initial inventory of planning area rivers to determine eligibility and suitability for inclusion in the NWSRS as part of the ANILCA. In the Report to the Secretary of the Interior for Potential Components of the NWSRS (BLM 2019b), Alaska was divided into six drainage subregions, with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. Most of the planning area is in the Yukon subregion (with the western portion located in the Northwest subregion) with 31 rivers identified for study. Of these 31 rivers, 11 are within the planning area. Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System. Per BLM Manual 6400, Wild and Scenic Rivers manual, one of the suitability criteria includes the estimated cost of acquiring necessary lands or interests in land within the corridor, as well as the cost of administering the area, should it be added to the National System.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Cole	Jeanie	Alaskans for Wildlife	None	142	14	Wild and Scenic Rivers	211.0200.00	Alternative B recommends 11 rivers as suitable for designation under the Wild and Scenic Rivers Act. The BLM should revise the preferred alternative to add these eligible wild and scenic rivers and incorporate interim management as described in Alternative B. As proposed in Alternative B, management of suitable segments as right-of-way avoidance areas, closed to mineral materials, and limited surface occupancy for various uses would protect of high-value riparian habitat and provide habitat connectivity for many wildlife species. Both the Atigun and Upper Dietrich rivers have outstandingly remarkable scenic and recreation values and are deserving of designation. Both rivers are shared by BLM, Gates of the Arctic, and the Arctic National Wildlife Refuge. The designation of the Atigun would be consistent with the Arctic Refuge management plan which found the river suitable for designation as wild. This is the Refuge's only front country river due to its proximity to the Dalton Highway. The Atigun is a heavily used recreational river (USFWS, Arctic National Wildlife Refuge Revised Comprehensive Management Plan, 2015) and has some of the most challenging road-accessible white water in northern Alaska.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated a reasonable range of alternatives that considered designating wild and scenic river segments as suitable for inclusion in the National Wild and Scenic Rivers system.
Cole	Jeanie	Alaskans for Wildlife	None	142	15	Wild and Scenic Rivers	211.0200.00	Although the BLM's Wild and Scenic River (WSR) Report mentions that 20 rivers were identified in scoping comments and that those rivers were addressed during the inventory, the report does not list which 20 rivers were nominated by the public. The reader must refer back to the scoping report and cross-reference the two reports to determine the names of the 20 rivers. The WSR report should clearly discuss rivers nominated by the public during scoping, how they were ranked in the inventory, and provide rationale of why they were not considered eligible for those that did not make the cut. Although Table 2 lists the rivers BLM staff did not find eligible it does not describe in more detail why they were not eligible as the report does for those found to be eligible. We recommend that this more detailed information be provided for rivers nominated during scoping, but which did not rank a 4 on any ORV during the BLM inventory.	The BLM conducted an initial inventory of planning area rivers to determine eligibility and suitability for inclusion in the NWSRS as part of the ANILCA. In the Report to the Secretary of the Interior for Potential Components of the NWSRS (BLM 2019b), Alaska was divided into six drainage subregions, with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. Most of the planning area is in the Yukon subregion (with the western portion located in the Northwest subregion) with 31 rivers identified for study. Of these 31 rivers, 11 are within the planning area. Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System. Per BLM Manual 6400, Wild and Scenic Rivers manual, one of the suitability criteria includes the estimated cost of acquiring necessary lands or interests in land within the corridor, as well as the cost of administering the area, should it be added to the National System.
Cole	Jeanie	Alaskans for Wildlife	None	142	16	Wild and Scenic Rivers	211.0200.00	We recommend that BLM reconsider eligibility of the following rivers. This recommendation is based on experience by our members as guides and paddlers. 1. Middle Fork Koyukuk, the segment from the upper river to just below Coldfoot as Recreational. Outstandingly Remarkable Values (ORVs): Recreation, Scenic, and Cultural. As noted in the Wild and Scenic River Inventory page 9 (BLM 2018), Middle Fork is identified as a known location for recreational floating/rafting in several guide books including The Alaska River Guide (1993), Alaska Paddling Guide (1992), and Floating Alaskan Rivers (1982). The U.S. Fish and Wildlife Service also identified the Koyukuk as a river of interest in the Kanuti Comprehensive Conservation Plan (pg. 10 WSR report). 2. Middle Fork Koyukuk, the segment from just below Coldfoot to Bettles as Wild. ORVs: Recreational, Scenic, and Fish. 3. South Fork Koyukuk Wild except short Scenic stretches flanking the Dalton Highway. ORVs: Recreational, Fish, and Scenic. Based on topography and geology, fish and wildlife populations, recreational opportunities, and cultural history, the FWS identified four river segments as exceptional examples of the rivers flowing through the refuge (Insert 3-6 in the Kanuti CCC). These include the South Fork Koyukuk and Koyukuk. 4. Ray River as Wild. ORVs: Recreational, Fish, and Wildlife. 5. Tozitna River as Recreational. ORV: Fish. Public comment during scoping identified the Tozitna as potentially eligible for designation (BLM Scoping Report, pg. 45).	The BLM conducted an initial inventory of planning area rivers to determine eligibility and suitability for inclusion in the NWSRS as part of the ANILCA. In the Report to the Secretary of the Interior for Potential Components of the NWSRS (BLM 2019b), Alaska was divided into six drainage subregions, with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. Most of the planning area is in the Yukon subregion (with the western portion located in the Northwest subregion) with 31 rivers identified for study. Of these 31 rivers, 11 are within the planning area. Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System. Per BLM Manual 6400, Wild and Scenic Rivers manual, one of the suitability criteria includes the estimated cost of acquiring necessary lands or interests in land within the corridor, as well as the cost of administering the area, should it be added to the National System.
Gestring	Bonnie	Earthworks	None	146	37	Wild and Scenic Rivers	211.0200.00	The preferred alternative in the Draft RMP/EIS would substantially impact Outstandingly Remarkable Values due to the rejection of all 11 eligible wild and scenic river segments within the planning area.39 39 Ibid. at 3-169. According to the BLM: …the Preferred Alternative would determine all 11 stream segments to be not suitable for inclusion in the NWSRS and would release them from interim management protections afforded eligible or suitable segments; consequently, without any interim management protections, management actions under this RMP could affect the ORVs for these stream segments.4 40 Draft RMP/EIS at 3.4.2, p. 3-166 While the Draft RMP/EIS's cumulative impacts analysis of the rejection of all eligible Wild and Scenic river segments does provide that "cumulative impact analysis area in the planning area that have affected and would likely continue to affect ORVs for eligible or suitable segments are mining, oil and gas development,"41 this analysis does not describe how mining activity can exacerbate the impacts of climate change on water and subsistence resources. 41 Ibid. at 3.4.2, p. 3-166.	The Wild and Scenic Rivers Act mandates protections for rivers that are designated rivers of the National Wild and Scenic River System. Federal managers of rivers that were recommended pursuant to a congressionally authorized WSR study are obligated to use existing management authorities to protect the characteristics of rivers for the conditions under which they were found eligible and suitable. A river's preliminary classification (either wild, scenic, or recreational, based on level of development), free-flowing condition, water quality, and ORVs must be maintained. The WSR study for the Central Yukon draft RMP/EIS was an agency directed study, not a congressionally authorized study; however, where practicable and where it does not conflict with the purposes of other laws and regulations, stipulations would be applied to protect WSR characteristics on rivers determined to be suitable and recommended to Congress to be included in the system.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Gestring	Bonnie	Earthworks	None	146	62	Wild and Scenic Rivers	211.0200.00	In 2021, the state of Alaska began a new State Comprehensive Outdoor Recreation Plan (SCORP) process. Section 11 of WSRA "authorizes the Secretary of the Interior to encourage states to consider opportunities for state and local WSRs in formulation of the State Comprehensive Outdoor Recreation Plan (SCORP) and to assist, advise, and cooperate with landowners, organizations, and governments in the management of WSRs; agencies can look outside administrative boundaries." Furthermore, Section 11 (b)(1) states, "The Secretary of the Interior, the Secretary of Agriculture, or the head of any other federal agency 'shall assist, advise and cooperate with states or their political subdivisions, landowners, private organizations or individuals to plan, protect and manage river resources.' Authority is within and outside a federally administered area and applies to rivers in the National System and other rivers." We recommend that the BLM not remove interim management protections for eligible wild and scenic river segments until consulting with all of the parties involved in the 2021 SCORP planning process. BLM should consult with the Environmental Protection Agency (EPA) before making any determination that would release study rivers from interim management protections affording eligibility. Section 12 of WSRA "Directs federal agencies to protect rivers in light of other policies which may be contrary to the Act and confirms that existing rights are not abrogated; directs river-administering agencies to cooperate with the Environmental Protection Agency (EPA) and appropriate state water pollution control agencies to eliminate or diminish the pollution of waters. (a) Other federal agencies are to take such actions to protect lands which are included, border upon, or are adjacent to, congressionally designated and authorized study rivers in accordance with the Act, paying particular attention to timber harvest, road construction, and similar activities which may be contrary to purposes of the Act. (b) Existing rights, privileges, or contracts may not be revoked without private party consent. (c) Water pollution: Cooperate with the EPA and appropriate state water pollution agencies." We also reiterate the comments from the EPA in their review of the CYRMP, "Under Alternative C-2, the basis for determining the segments that are "not suitable" is not clear from the DEIS. Protection of the free-flowing nature, water quality, and other identified ORVs provide potential benefits for watershed condition as well as for subsistence use of the eligible river areas. While the DEIS provides a discussion of overlapping protections under Alternatives C1, C2 and D for other resources that could result in the maintenance of some of the values that led to the identification of the rivers as "eligible" the potential impacts of finding the segments "not suitable" are unclear. For example, it is not clear what portion of each river would be without relevant protections. Further, the level of detail is not sufficient to understand what the potential impacts would be on specific ORVs for the eligible segments."72 72 U.S. Environmental Protection Agency, Comments on the Central Yukon Resource Management Plan, March 5, 2021. We encourage the BLM to provide additional analysis of the potential impacts of discontinuing management to protect ORVs, including what portion of the river segment would be without protection resulting from other management prescriptions, and what the resulting impacts on specific ORVs could be for each eligible segment.	The Wild and Scenic Rivers Act mandates protections for rivers that are designated rivers of the National Wild and Scenic River System. Federal managers of rivers that were recommended pursuant to a congressionally authorized WSR study are obligated to use existing management authorities to protect the characteristics of rivers for the conditions under which they were found eligible and suitable. A river's preliminary classification (either wild, scenic, or recreational, based on level of development), free-flowing condition, water quality, and ORVs must be maintained. The BLM's policy goal for eligible and suitable rivers is to manage their free-flowing condition, water quality, tentative classification, and any ORVs to assure that a suitability decision can be made for eligible rivers or, in the case of suitable rivers, until Congress designates the river in the National Wild and Scenic Rivers System or releases it for other uses. Under all alternatives, the BLM would maintain free-flowing characteristics of eligible river segments and ensure that authorized uses comply with all stated objectives. Management actions that prohibit surface-disturbing activities, would provide varying protections for ORVs. This would also ensure that the free-flowing condition of the river remains intact. There are other management actions in Chapter 2, such as restrictions on use, Proper Functioning Conditions, water quality standards, etc. that provide protections to these resources, regardless of WSR designations.
Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	6	Wild and Scenic Rivers	211.0200.00	Nowitna Wild River: We have significant concerns about the affect this plan will have on the Nowitna WSR (Nowitna NWR). The Nowitna River is a congressionally recognized Wild River under the Wild and Scenic Rivers Act. Mineral development in tributaries is a primary threat to river values identified for this river, primarily due to potential changes in water quality/quantity and impacts to the Fish Outstandingly Remarkable Value (ORV) for fish species which depend on these tributaries for part of their life cycle (e.g. spawning). Under the current management of BLM lands in the watershed (Alternative A), protections to these resources are in place through recognition and management of several ACECs (including Sulukna River and Sethkokna River); suitable Wild and Scenic River segments (including Sulukna River); restrictions on locatable mineral entry, placer mining, minerals disposal, ROW access and other surface disturbance in key tributaries; and the retention several PLOs and lands which have been top-filed by the State of Alaska. There have been a number of active mines in the Nowitna River watershed in the past, and we anticipate there will be interest in future development should changes in land ownership or development restrictions occur. We strongly oppose revocation of PLOs 5173, 5179, 5180, 5184, and 5186 in the Nowitna River Watershed under any alternative. Alternative B reduces risks to Nowitna WSR ORVs through recognition and management of suitable WSR segments and ACEC's, and restrictions on locatable mineral entry, placer mining, mineral disposal, ROW access and other surface disturbance in ket tributaries. However, PLOs 5173 and 5179 directly overlay sensitive habitat (including ACECS and WSR segments) on the Sulukna River and Sethkokna Rivers. We recommend the areas be exempted from the withdrawal or conveyance.	The Wild and Scenic Rivers Act mandates protections for rivers that are designated rivers of the National Wild and Scenic River System. Federal managers of rivers that were recommended pursuant to a congressionally authorized WSR study are obligated to use existing management authorities to protect the characteristics of rivers for the conditions under which they were found eligible and suitable. A river's preliminary classification (either wild, scenic, or recreational, based on level of development), free-flowing condition, water quality, and ORVs must be maintained. The BLM's policy goal for eligible and suitable rivers is to manage their free-flowing condition, water quality, tentative classification, and any ORVs to assure that a suitability decision can be made for eligible rivers or, in the case of suitable rivers, until Congress designates the river in the National Wild and Scenic Rivers System or releases it for other uses. Under all alternatives, the BLM would maintain free-flowing characteristics of eligible river segments and ensure that authorized uses comply with all stated objectives. Management actions that prohibit surface-disturbing activities, would provide varying protections for ORVs. This would also ensure that the free-flowing condition of the river remains intact. There are other management actions in Chapter 2, such as restrictions on use, Proper Functioning Conditions, water quality standards, etc. that provide protections to these resources, regardless of WSR designations.
Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	30	Wild and Scenic Rivers	211.0200.00	We strongly oppose revocation of PLOs 5173, 5179, 5180, 5184, and 5186 in the Nowitna River Watershed under any alternative. Alternative B reduces risks to Nowitna WSR ORVs through recognition and management of suitable WSR segments and ACEC's and restrictions on locatable mineral entry, placer mining, minerals disposal, ROW access and other surface disturbance in key tributaries. Alternatives C1, C2, and D pose unacceptable risks to the Nowitna WSR.	The Wild and Scenic Rivers Act mandates protections for rivers that are designated rivers of the National Wild and Scenic River System. Federal managers of rivers that were recommended pursuant to a congressionally authorized WSR study are obligated to use existing management authorities to protect the characteristics of rivers for the conditions under which they were found eligible and suitable. A river's preliminary classification (either wild, scenic, or recreational, based on level of development), free-flowing condition, water quality, and ORVs must be maintained. The BLM's policy goal for eligible and suitable rivers is to manage their free-flowing condition, water quality, tentative classification, and any ORVs to assure that a suitability decision can be made for eligible rivers or, in the case of suitable rivers, until Congress designates the river in the National Wild and Scenic Rivers System or releases it for other uses. Under all alternatives, the BLM would maintain free-flowing characteristics of eligible river segments and ensure that authorized uses comply with all stated objectives. Management actions that prohibit surface-disturbing activities, would provide varying protections for ORVs. This would also ensure that the free-flowing condition of the river remains intact. There are other management actions in Chapter 2, such as restrictions on use, Proper Functioning Conditions, water quality standards, etc. that provide protections to these resources, regardless of WSR designations.

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Magee	Susan	State Of Alaska	None	165	11	Wild and Scenic Rivers	211.0200.00	2. Wild and Scenic River Study – Issue: o The Wild and Scenic River study conducted by BLM violates ANILCA Section 1326(b) because the study was not authorized in ANILCA or by an act of Congress, post-ANILCA. o Wild and scenic river designations in the Utility Corridor would interfere with Dalton Highway road maintenance activities that draw millions of gallons of water (summer and winter). o Notwithstanding ANILCA's prohibition, the wild and scenic river study was not conducted consistent with BLM policy direction. * Resolution: o Rescind the flawed study findings for the eligible and suitable rivers identified under Alternatives A and B, remove all intent to apply interim protections "until Congress acts" (i.e., Goals and Objectives, Table 2-9). o Do not recommend any wild and scenic river designations in the final plan. * Discussion: The State maintains its objection to the Wild and Scenic River study the plan purports to have conducted in compliance with BLM policy (i.e., BLM Manual 6400, 2012) to determine the eligibility and suitability of rivers within the planning area for potential recommendation to Congress as Wild and Scenic Rivers (WSR). The study and BLM's national policy direction are both inconsistent with Section 1326(b) of ANILCA, which prohibits wild and scenic river studies in Alaska unless authorized in ANILCA or an act of Congress, post-ANILCA (WSRs are defined in ANILCA as CSUs). No further studies of Federal lands in the State of Alaska for the single purpose of considering the establishment of a conservation system unit, national recreation area, national conservation area, or for related or similar purpose (emphasis added) shall be conducted unless authorized by this Act or further Act of Congress. (ANILCA Section 1326(b)) ANILCA added twenty-six rivers in Alaska to the Wild and Scenic River System and mandated twelve additional rivers be studied for potential designation. The reports required in ANILCA Section 604 for rivers designated for study have long been completed. Two of the Congressionally designated study rivers were located within the Central Yukon planning area, the Melozitna and the Yukon-Ramparts segment, neither of which were recommended for designation (BLM AMS, page 183). The intent of Congress in ANILCA was not to allow an endless cycle of studies but to provide finality to the lengthy studies and deliberations that led up to ANILCA. In addition to the prohibition in ANILCA Section 1326(b), that intent is also clearly stated in ANILCA Section 101(d): This Act provides sufficient protection for the national interest in the scenic, natural, cultural and environmental values on the public lands in Alaska, and at the same time provides adequate opportunity for satisfaction of the economic and social needs of the State of Alaska and its people; accordingly, the designation and disposition of the public lands in Alaska pursuant to this Act are found to represent a proper balance between the reservation of national conservation system units and those public lands necessary and appropriate for more intensive use and disposition, and thus Congress believes that the need for future legislation designating new conservation system units, new national conservation areas, or new national recreation areas, has been obviated thereby [Emphasis added]. Further, BLM's Wild and Scenic River policy (IM 91-127, 12/14/90) was modified pursuant to a Settlement Agreement for the American Rivers v. Babbitt lawsuit to remove Alaska's exemption from conducting wild and scenic river studies in RMPs (the removal of the exemption did not apply to activity planning). However, a BLM News Release issued 12/14/93 clearly states BLM's purpose for settling the lawsuit had nothing to do with a legal interpretation of ANILCA Section 1326(b). The news release states, "This settlement reflects the BLM's desire to resolve disputes rather than engage in gridlock," Director Baca said "it establishes the proper study of valuable resources while eliminating a costly, lengthy court battle." At the same time, however, BLM policy retained recognition that ANILCA Section 1326(b) still applied to Alaska, emphasizing that it applied to studies that were conducted for the "single" purpose of considering eligibility for wild and scenic river designation.	The Wild and Scenic Rivers Act mandates protections for rivers that are designated rivers of the National Wild and Scenic River System. Federal managers of rivers that were recommended pursuant to a congressionally authorized WSR study are obligated to use existing management authorities to protect the characteristics of rivers for the conditions under which they were found eligible and suitable. A river's preliminary classification (either wild, scenic, or recreational, based on level of development), free-flowing condition, water quality, and ORVs must be maintained. The RMP is not designating any Wild and Scenic Rivers. Rivers are designated in the National Wild and Scenic Rivers System as specified in the Wild and Scenic Rivers Act by 1) an act of Congress; or 2) the Secretary of the Interior. The WSR study for the Central Yukon was an agency-directed study, not a congressionally authorized study; however, where practicable, stipulations would be applied to protect WSR characteristics on rivers determined to be suitable and recommended to Congress to be included in the system. The BLM's policy goal for eligible and suitable rivers is to manage their free-flowing condition, water quality, tentative classification, and any ORVs to assure that a suitability decision can be made for eligible rivers or, in the case of suitable rivers, until Congress designates the river in the National Wild and Scenic Rivers System or releases it for other uses. Under all alternatives, the BLM would maintain free-flowing characteristics of eligible river segments and ensure that authorized uses comply with all stated objectives. Management actions that prohibit surface-disturbing activities would provide varying protections for ORVs. This would also ensure that the free-flowing condition of the river remains intact. There are other management actions in Chapter 2, such as restrictions on use, Proper Functioning Conditions, water quality standards, etc. that provide protections to these resources, regardless of WSR designations.
Magee	Susan	State Of Alaska	None	165	12	Wild and Scenic Rivers	211.0200.00	Additionally, it is unclear if the rivers identified as eligible and suitable in Table 2-9 were ever evaluated as required in BLM Manual 6400 (page 3-1, Chapter 3. Evaluation of Study Rivers) because no supporting documentation is provided in the plan or on BLM's e-planning website. Section 3.4.2 in the draft plan refers to the April 2016 CYRMP Analysis of the Management Situation (AMS) for additional information. The extent of the analysis in the AMS can be summed up in the first sentence of the Current Condition section (page 183) "All of the waterways in the planning area are free flowing and many likely (emphasis added) have attributes that qualify as outstandingly remarkable values…" The State's scoping comments dated January 17, 2013 pointed out that the September 2012 CYRMP Preparation Plan (page 12) indicated BLM was relying on input from the public and advocacy groups for supporting information and that that approach was inconsistent with BLM Manual 6400, including the Interagency Wild and Scenic Rivers Coordinating Council guidance referenced in BLM's manual. A mere listing of rivers and their related attributes without data and other information documenting BLM's determinations on river classification and outstandingly remarkable values (ORVs) does not constitute a substantive study necessary to support the eligibility and suitability determinations under Alternatives A and B. The Wild and Scenic River designations (and interim protections) in the Utility Corridor (i.e., proposed suitability findings apply to the Sagavanirktok River, Dietrich River, Mathews River, Jim River and Kanuti River), will interfere with activities currently conducted by the State to maintain the Dalton Highway. For example, road maintenance activities include drawing millions of gallons of water in both summer and winter. At a minimum, this existing use should have been recognized in the study, and by itself, may have disqualified these rivers from being found suitable and carried forward under Alternative B.	The BLM conducted an initial inventory of planning area rivers to determine eligibility and suitability for inclusion in the NWSRS as part of the ANILCA. In the Report to the Secretary of the Interior for Potential Components of the NWSRS (BLM 2019b), Alaska was divided into six drainage subregions, with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. Most of the planning area is in the Yukon subregion (with the western portion located in the Northwest subregion) with 31 rivers identified for study. Of these 31 rivers, 11 are within the planning area. Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System. Per BLM Manual 6400, Wild and Scenic Rivers manual, one of the suitability criteria includes the estimated cost of acquiring necessary lands or interests in land within the corridor, as well as the cost of administering the area, should it be added to the National System.
Magee	Susan	State Of Alaska	None	165	13	Wild and Scenic Rivers	211.0200.00	The overarching goal for the Wild and Scenic River section of the plan (Table 2-9) inappropriately states that free flowing nature and ORVs will be maintained, implying the goal applies regardless of the final decision in the plan's Record of Decision. If BLM does not recommend rivers to Congress for designation and/or Congress does not subsequently designate the rivers, the objective to maintain WSR related attributes is no longer relevant and should be removed from the plan. In addition, the objective for Alternative A in Table 2-9 inaccurately states that eligible rivers will be managed to protect the free-flowing nature, water quality, ORVs, and preliminary classification, pending Congressional action. Eligible rivers have not been recommended to Congress; therefore, there is nothing for Congress to act upon. BLM policy only provides for protection of eligible rivers pending the agency's suitability finding. According to Alternative B in Table 2-9, BLM's suitability determinations are complete.	The Wild and Scenic Rivers Act mandates protections for rivers that are designated rivers of the National Wild and Scenic River System. Federal managers of rivers that were recommended pursuant to a congressionally authorized WSR study are obligated to use existing management authorities to protect the characteristics of rivers for the conditions under which they were found eligible and suitable. A river's preliminary classification (either wild, scenic, or recreational, based on level of development), free-flowing condition, water quality, and ORVs must be maintained. The BLM's policy goal for eligible and suitable rivers is to manage their free-flowing condition, water quality, tentative classification, and any ORVs to assure that a suitability decision can be made for eligible rivers or, in the case of suitable rivers, until Congress designates the river in the National Wild and Scenic Rivers System or releases it for other uses. Under all alternatives, the BLM would maintain free-flowing characteristics of eligible river segments and ensure that authorized uses comply with all stated objectives. Management actions that prohibit surface-disturbing activities, would provide varying protections for ORVs. This would also ensure that the free-flowing condition of the river remains intact. There are other management actions in Chapter 2, such as restrictions on use, Proper Functioning Conditions, water quality standards, etc. that provide protections to these resources, regardless of WSR designations.

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Magee	Susan	State Of Alaska	None	165	14	Wild and Scenic Rivers	211.0200.00	Further, when considering river eligibility and suitability, the ownership of the submerged lands must also be taken into consideration (BLM Manual 6400, page 3-1, Section 3.1).6 6 "In order to determine eligibility and assign a tentative classification (see chapter 3.3), it may be necessary to divide a study river into segments. In defining segment termini, consider (1) obvious changes in land status or ownership." (page 3-1, 3.1, A. Segments); "Jurisdictional and management constraints are not considered when determining a river's eligibility for designation as a WSR. These types of issues are addressed in the suitability phase of WSR studies." (page 3-1, 3.1 Eligibility); "The following factors will be considered and, as appropriate, documented in the suitability analysis as a basis for the suitability determination of each river….2. The current state of land ownership and use in the area." (page 3-6, A. Basis for Suitability) The State was granted ownership of all navigable waters in Alaska at Statehood in 1959; however, BLM has not identified the navigability status for the vast number of rivers in the CYRMP planning area, including the rivers found eligible and suitable in Table 2-9. ANILCA Section 606 amended the Wild and Scenic Rivers Act and excludes State and private lands from the boundaries of designated rivers in Alaska. WSR Guidance issued by the Alaska Land Use Council (ALUC) in November 1982 (enclosed) also recognizes that non-federal lands, including the beds of navigable streams are excluded from the boundaries of designated WSRs (page 6, Section 15).7 7 Section 1201 of ANILCA established the Alaska Land Use Council (ALUC) as an advisory body. Functions of the ALUC are outlined in Section 1201 and include making recommendations regarding the implementation of ANILCA. Notably absent is inclusion of any guidance in this same document pertaining to agency directed WSR studies pursuant to Section 5(d)(1) of the Wild and Scenic Rivers Act, which BLM claims as its authority for conducting WSR studies in Alaska, even when there is no authorization from Congress as ANILCA requires (BLM Manual 6400, page 2-1). ANILCA is the later and more specific statute and therefore prevails. In 2019, the Supreme Court also affirmed in Sturgeon v. Frost that submerged lands owned by the State that are located within the boundaries of a CSU cannot be regulated as part of the CSU.8 8 Sturgeon, 139 S. Ct. at 1081 Additionally, the selection and conveyance process for State and Native Corporation lands is not yet complete and the potential ownership pattern of lands surrounding these rivers must also be taken into consideration. Highly fragmented land ownership does not lend itself to wild and scenic river corridor management. The study and draft plan both lack this analysis.	The BLM conducted an initial inventory of planning area rivers to determine eligibility and suitability for inclusion in the NWSRS as part of the ANILCA. In the Report to the Secretary of the Interior for Potential Components of the NWSRS (BLM 2019b), Alaska was divided into six drainage subregions, with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. Most of the planning area is in the Yukon subregion (with the western portion located in the Northwest subregion) with 31 rivers identified for study. Of these 31 rivers, 11 are within the planning area. Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System. Per BLM Manual 6400, Wild and Scenic Rivers manual, one of the suitability criteria includes the estimated cost of acquiring necessary lands or interests in land within the corridor, as well as the cost of administering the area, should it be added to the National System.
Magee	Susan	State Of Alaska	None	165	15	Wild and Scenic Rivers	211.0200.00	The so-called WSR study referenced in the draft plan is inconsistent with BLM's WSR Manual 6400 that calls for a rigorous, well documented study process. Therefore, both the eligibility and suitability findings in the CYRMP are flawed and cannot be relied upon to support WSR recommendations or intent to apply WSR related protections as noted in the goals and objectives in Table 2-9. Moreover, policy direction cannot override the statutory direction in ANILCA Section 1326(b). As such, the State reiterates its objections to the WSR study, does not support BLM recommending any of the suitable rivers identified in Table 2-9 under Alternative B, and requests the overarching goals and objectives in Table 2-9 and intent to apply protections to rivers found eligible and/or suitable be removed in the final plan.	The BLM conducted an initial inventory of planning area rivers to determine eligibility and suitability for inclusion in the NWSRS as part of the ANILCA. In the Report to the Secretary of the Interior for Potential Components of the NWSRS (BLM 2019b), Alaska was divided into six drainage subregions, with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. Most of the planning area is in the Yukon subregion (with the western portion located in the Northwest subregion) with 31 rivers identified for study. Of these 31 rivers, 11 are within the planning area. Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System. Per BLM Manual 6400, Wild and Scenic Rivers manual, one of the suitability criteria includes the estimated cost of acquiring necessary lands or interests in land within the corridor, as well as the cost of administering the area, should it be added to the National System.
Cambell	Bruce	No organization name	None	174	6	Wild and Scenic Rivers	211.0200.00	I note that a portion of the Iditarod Nat'l Historic Trail is in the assessment area. Watercourses near this trail, as well as watercourses in and neighboring ACECs / RNAs, should be some of the first (re-)assessed by biologists and hydrologists for possible nomination as eligible to become designated Wild & Scenic River segments! And please do not stop there in your re-assessments!	The BLM conducted an initial inventory of planning area rivers to determine eligibility and suitability for inclusion in the NWSRS as part of the ANILCA. In the Report to the Secretary of the Interior for Potential Components of the NWSRS (BLM 2019b), Alaska was divided into six drainage subregions, with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. Most of the planning area is in the Yukon subregion (with the western portion located in the Northwest subregion) with 31 rivers identified for study. Of these 31 rivers, 11 are within the planning area. Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System.
Mannix	Jacob	Backcountry Hunters & Anglers	None	185	32	Wild and Scenic Rivers	211.0200.00	Alaska BHA is supportive of the BLM's decision to consider 603 river-miles as suitable for designation under the Wild and Scenic Rivers act. We believe the protections afforded under this designation will help the BLM avoid further watershed damage and promote opportunity for hunting, fishing and recreational activities. We are concerned that the preferred Alternative C2 and Alternatives C1 and D recommend that all eligible stream segments be determined not suitable (DEIS, Table 2-9, pg. 2-34). Alaska BHA believes that Alternatives C1, C2 and D do not represent a blend of Alternatives and clearly puts development priorities over resource protection. Alaska BHA urges the BLM to consider Alternative B as the most suitable alternative for the final RMP regarding Wild and Scenic Rivers.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated a reasonable range of alternatives that considered designating wild and scenic river segments as suitable for inclusion in the National Wild and Scenic Rivers system.

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Kenning	Erik	Arctic Slope Regional Corporation	None	187	7	Wild and Scenic Rivers	211.0200.00	ASRC does not support designation of any Wild and Scenic Rivers within our region, especially in regards to the Colville River. ASRC owns substantial acreage downstream of BLM lands along the Colville. Inevitably, this designation would create many issues for ASRC related to trespass and the associated costs of prevention, policing and cleanup. There are some public easements, but it has been our experience that many past users do not abide by the stipulations. As there is not road access to the area, we find ourselves having to charter planes to police the land and unfortunately remove trash left there by others. ASRC is also concerned about the unintended consequences and complications this type of designation creates for us as a downstream landowner and the management of our lands and resources. Our Alaska Native shareholders use this river as a critical area for subsistence and the potential increased river traffic would not be welcomed by the communities as it could negatively impact them. Designations such as this are designed to cater towards people from outside our region and have very little benefit to the local residents, and conversely, opens the door to negative impacts to the local residents. For these reasons, ASRC opposes any Wild and Scenic River designations within our region.	The RMP is not designating any Wild and Scenic Rivers. Rivers are designated in the National Wild and Scenic Rivers System as specified in the Wild and Scenic Rivers Act by 1) an act of Congress; or 2) the Secretary of the Interior. The BLM will continue to implement stipulations, which protect rivers and streams in the program area. The Wild and Scenic Rivers Act mandates protections for rivers that are designated rivers of the National Wild and Scenic River System. Federal managers of rivers that were recommended pursuant to a congressionally authorized WSR study are obligated to use existing management authorities to protect the characteristics of rivers for the conditions under which they were found eligible and suitable. A river's preliminary classification (either wild, scenic, or recreational, based on level of development), free-flowing condition, water quality, and ORVs must be maintained. The BLM's policy goal for eligible and suitable rivers is to manage their free-flowing condition, water quality, tentative classification, and any ORVs to assure that a suitability decision can be made for eligible rivers or, in the case of suitable rivers, until Congress designates the river in the National Wild and Scenic Rivers System or releases it for other uses. Under all alternatives, the BLM would maintain free-flowing characteristics of eligible river segments and ensure that authorized uses comply with all stated objectives. Management actions that prohibit surface-disturbing activities, would provide varying protections for ORVs. This would also ensure that the free-flowing condition of the river remains intact. There are other management actions in Chapter 2, such as restrictions on use, Proper Functioning Conditions, water quality standards, etc., that provide protections to these resources, regardless of WSR designations.
O'Keefe	Thomas	American Whitewater	None	191	1	Wild and Scenic Rivers	211.0200.00	Several of these rivers, including the Dietrich, Jim, Mathews, Atigun, and Sagavanirktok are readily accessible from the Dalton Highway, making them among the most accessible Northern Alaska and Brooks Range paddling experiences available while offering wilderness river experiences. The North Fork Chandalar - Quartz Creek - Mathews - Bettles River loop has, for example, become known as an exemplary packrafting trip with road access and fairly simple shuttle logistics. Studies of these rivers have not been performed in a sufficient depth or detail as required by BLM Manual 6400 "Wild and Scenic Rivers - Policy and Program Direction for Identification, Evaluation, Planning, and Management (Public)." None of the planning documents provide current and detailed information sufficient to eliminate the protection of their free-flowing condition, water quality, and ORVs. Furthermore, we do not believe that the BLM has statutory authority to conduct suitability assessments that result in release from interim management protections afforded eligible segments. The Wild and Scenic Rivers Act is intended to protect designated Wild and Scenic Rivers as well as a suite of potential Wild and Scenic Rivers. The Act requires BLM to consider potential Wild and Scenic Rivers during planning processes. Potential Wild and Scenic Rivers are identified in the Act as either 1) Identified as eligible by the BLM, or 2) Identified as potential Wild and Scenic Rivers by Congress. These are commonly referred to as eligible rivers and study rivers respectively. Importantly, BLM is authorized and mandated to determine the suitability or unsuitability only of study rivers determined by Congress to be potential Wild and Scenic Rivers. BLM is not authorized or mandated to determine the suitability or unsuitability of rivers found eligible by the BLM under Section 2(b) of the Wild and Scenic Rivers Act. The entire premise of conducting suitability determinations and releases during planning has no basis in law, and significantly undermines the Wild and Scenic Rivers Act. The BLM should protect all streams found eligible.	The BLM conducted an initial inventory of planning area rivers to determine eligibility and suitability for inclusion in the NWSRS as part of the ANILCA. In the Report to the Secretary of the Interior for Potential Components of the NWSRS (BLM 2019b), Alaska was divided into six drainage subregions, with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. Most of the planning area is in the Yukon subregion (with the western portion located in the Northwest subregion) with 31 rivers identified for study. Of these 31 rivers, 11 are within the planning area. Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System. Per BLM Manual 6400, Wild and Scenic Rivers manual, one of the suitability criteria includes the estimated cost of acquiring necessary lands or interests in land within the corridor, as well as the cost of administering the area, should it be added to the National System.
Shon Jodwalis	Lisa	No organization name	None	197	3	Wild and Scenic Rivers	211.0200.00	I was unable to find a completed inventory of the eligible rivers. If it is not publicly available or is incomplete, there is no justification for eliminating the eligible rivers from consideration as potential WSRs. I have floated the Atigun/Sagavanirktok (Sag), Jim, and Middle Fork Koyukuk Rivers and have flown over the eight other rivers listed in the Draft Plan. I also began the WSR inventory process in 2013 although I was unable to do more than identify potential candidates before I retired. Thus, I am familiar with the eligibility criteria. The Lower Sag (from its conjunction with the Atigun River to the Slope Mountain DOT Station) stands out among all of these in its suitability. The Atigun and Sag Rivers together offer the only road-accessible, premier whitewater river trip in the Brooks Range and thus are unique in their value to recreational boaters who must charter an air taxi service to reach any other Brooks Range river	The BLM conducted an initial inventory of planning area rivers to determine eligibility and suitability for inclusion in the NWSRS as part of the ANILCA. In the Report to the Secretary of the Interior for Potential Components of the NWSRS (BLM 2019b), Alaska was divided into six drainage subregions, with 69 rivers selected for preliminary consideration for having the greatest potential for inclusion. Most of the planning area is in the Yukon subregion (with the western portion located in the Northwest subregion) with 31 rivers identified for study. Of these 31 rivers, 11 are within the planning area. Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System. Per BLM Manual 6400, Wild and Scenic Rivers manual, one of the suitability criteria includes the estimated cost of acquiring necessary lands or interests in land within the corridor, as well as the cost of administering the area, should it be added to the National System.
Crockett	Deantha	Alaska Miners Association	None	199	52	Wild and Scenic Rivers	211.0200.00	3.4.2 - Wild and Scenic Rivers - Use of Outstandingly Remarkable Values (ORVs). "Outstandingly remarkable" values (ORVs), are defined in the RMP as "scenic, recreational, geological, fish and wildlife, historical, cultural or other similar values", which may include ecological biological or botanical. No definitions of "values" are provided, and no criteria are indicated for what makes any particular scene, fish, geologic, or botanical feature, for example, "remarkable", nor what would constitute "outstanding". The standard Oxford dictionary lists "remarkably" as a synonym of outstandingly, and in standard English usage, exceptionally, remarkably, outstandingly, conspicuously, unusual, uncommon, "worth noting" and "better than usual" are clearly all subjective terms. None of these definitions are scientific, nor do they have a clear and precise meaning. Therefore, they should not be used in making determinations of land use. Such subjective terms are applied very differently by people of diverse backgrounds. In fact, they have been applied very differently by BLM when preparing RMPs for different areas of the state and country over the past 25 years.	In order to be eligible for inclusion into the National System, the river, and its adjacent land area, must have one or more outstandingly remarkable values. A variety of methods can be used to determine whether certain river-related values are so unique, rare, or exemplary as to make them outstandingly remarkable. The determination that a river area contains outstanding values is a professional judgment on the part of an interdisciplinary team, based on objective analysis. In order to be assessed as outstandingly remarkable, a river-related value must be a unique, rare, or exemplary feature that is exceptional at a comparative regional or national scale. A unique or rare river-related value is one that would be a conspicuous example of that value from among a number of similar examples that are themselves uncommon or extraordinary. See BLM Manual 8400 for a more detailed description of outstandingly remarkable value criteria and descriptions.
Crockett	Deantha	Alaska Miners Association	None	199	53	Wild and Scenic Rivers	211.0200.00	Table 2-9 lists, numerous river segments with "outstandingly remarkable" "scenic" values with no indication of which persons' judgments determined this, or by what criteria. One could argue that to a resident of Detroit, every inch of Alaskan scenery would be both outstanding and remarkable. The reference to where these determinations originated is listed as a 2012 BLM Policy Direction Manual (6400), which is clearly not a scientific nor peer-reviewed document and one with no indicated authorship or credentials. This manual, and the process which led to these scenic "ORV" determinations are not available to the public for further scrutiny while commenting on the Draft RMP, yet the designations from this policy manual are used in determining management alternatives. Without criteria defined for inclusion, clear threshold levels identified for listing as "remarkable" or "outstanding" for each category (geology, biota, recreation etc.), the usage of these terms has no scientific, or commonly agreed upon meaning, and should play no role in management decisions.	In order to be eligible for inclusion into the National System, the river, and its adjacent land area, must have one or more outstandingly remarkable values. A variety of methods can be used to determine whether certain river-related values are so unique, rare, or exemplary as to make them outstandingly remarkable. The determination that a river area contains outstanding values is a professional judgment on the part of an interdisciplinary team, based on objective analysis. In order to be assessed as outstandingly remarkable, a river-related value must be a unique, rare, or exemplary feature that is exceptional at a comparative regional or national scale. A unique or rare river-related value is one that would be a conspicuous example of that value from among a number of similar examples that are themselves uncommon or extraordinary. See BLM Manual 8400 for a more detailed description of outstandingly remarkable value criteria and descriptions.

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National Wildlife Refuges	Koyukuk	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Northern Unit of Innoko National Wildlife Refuges	205	3	Wild and Scenic Rivers	211.0200.00	Alternative C2 fails to consider impacts to federally recognized Wild and Scenic Rivers on adjacent lands (e.g. Nowitna Wild River). · Suitable Wild and Scenic River (WSR) segments are not recognized or managed in Alternative C2. Management of suitable WSR segments protects floodplains of high-value watersheds, and contributes to river system/basin integrity and regional protection objectives for fish and wildlife resources, and provides management consistency across agencies for the management of the Nowitna Wild River (Nowitna NWR). A number of these waterways provide important spawning areas for fish of the Koyukuk and Nowitna NWRs, including anadromous species. The Sulukna River and Sethkokna Rivers feed into the Nowitna Wild River. Mineral development and other activities in these tributaries pose risks to Outstandingly Remarkable Values (ORVs) identified for this federally designated Wild River.	Eligible segments were subject to a suitability evaluation during development of the Draft RMP/EIS, based on the BLM Manual 6400. The purpose of the suitability phase is to determine whether eligible river segments are suitable for inclusion in the National System per the criteria of the WSR Act and BLM Manual 6400. This analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National System. Suitability considerations include the environment and economic consequences of designation and the manageability of a river if Congress were to designate it. During the suitability process, the BLM weighed protective measures for eligible river segments and the corresponding corridor in relation to current and potential identified uses. The BLM also considered possible environmental and economic consequences of management issues resulting from, and reasonable alternatives to inclusion in the National Wild and Scenic Rivers System.
National Wildlife Refuges	Koyukuk	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Northern Unit of Innoko National Wildlife Refuges	205	18	Wild and Scenic Rivers	211.0200.00	The Sulukna River and Sethkokna Rivers feed directly into the Nowitna. WSR Management of the Sulukna River as suitable for WSR designation provides management consistency across agencies to maintain, and where possible, enhance river values and to protect the Wild classification and river values of the Nowitna WSR. Mineral development in tributaries is a primary threat to river values identified for this river, primarily due to potential changes in water quality/quantity and impacts to the Fish Outstandingly Remarkable Value (ORV) for fish species which depend on these tributaries for part of their life cycle (e.g. spawning). We support Alternative B for the protection of the Nowitna WSR, and request that protection of Nowitna River tributaries be extended to all alternatives.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). Therefore, the BLM appropriately evaluated a reasonable range of alternatives that considered designating wild and scenic river segments as suitable for inclusion in the National Wild and Scenic Rivers system.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	16	Wild and Scenic Rivers	211.0200.00	We urge the BLM to ensure that documented river values, including water quality and quantity and important fish habitat, will be preserved in the Nowitna River watershed by incorporating relevant conservation measures described in Alternative A into the new plan.	The Wild and Scenic Rivers Act mandates protections for rivers that are designated rivers of the National Wild and Scenic River System. Federal managers of rivers that were recommended pursuant to a congressionally authorized WSR study are obligated to use existing management authorities to protect the characteristics of rivers for the conditions under which they were found eligible and suitable. A river's preliminary classification (either wild, scenic, or recreational, based on level of development), free-flowing condition, water quality, and ORVs must be maintained. The BLM's policy goal for eligible and suitable rivers is to manage their free-flowing condition, water quality, tentative classification, and any ORVs to assure that a suitability decision can be made for eligible rivers or, in the case of suitable rivers, until Congress designates the river in the National Wild and Scenic Rivers System or releases it for other uses. Under all alternatives, the BLM would maintain free-flowing characteristics of eligible river segments and ensure that authorized uses comply with all stated objectives. Management actions that prohibit surface-disturbing activities, would provide varying protections for ORVs. This would also ensure that the free-flowing condition of the river remains intact. There are other management actions in Chapter 2, such as restrictions on use, Proper Functioning Conditions, water quality standards, etc. that provide protections to these resources, regardless of WSR designations.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	17	Wild and Scenic Rivers	211.0200.00	We recommend that the BLM use existing authorities to manage to protect river values for those rivers identified as suitable for designation as Wild and Scenic Rivers under the Wild and Scenic Rivers Act (16 U.S.C. 1271 et seq)) in Alternatives A and B, in particular for those rivers which flow into NWRs. The Jim River, Kanuti River, and Kanuti-Kilolitna River are upstream from the Kanuti NWR. Hogatza River and Dulbi River flow into Koyukuk NWR, and the Sulukna River flows into the Nowitna River, which lies within Nowitna NWR. Protection of these rivers will contribute to the protection of water quantity and quality that are required in the establishment purposes of these Refuges. We also support the BLM's finding of the Sagavanirktok and Atigun Rivers as eligible/suitable for designation with a preliminary Recreational classification under the WSRA. The proposed protections offered by a WSR designation would have positive conservation benefits to the downstream portion of the Atigun River that flows onto Arctic Refuge lands, which was recommended for designation with a preliminary Wild classification.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated a reasonable range of alternatives that considered designating wild and scenic river segments as suitable for inclusion in the National Wild and Scenic Rivers system.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Fox	Joanna	U.S. Fish and Wildlife Service	Kanuti National Wildlife Refuge	208	8	Wild and Scenic Rivers	211.0200.00	We strongly recommend BLM use existing authorities to protect river values for those rivers identified as suitable for designation as Wild and Scenic Rivers under the Wild and Scenic Rivers Act, as described in Alternatives A and B. One of the establishing purposes of Kanuti NWR is to ensure water quality and necessary water quantity to conserve fish and wildlife populations and habitats in their natural diversity. Alternatives A and B would provide the greatest degree of protection to water quality and quantity in the Refuge downstream of the protected segments of the Jim, Kanuti and Kanuti-Kilolitna Rivers.	Land use planning and NEPA regulations require the BLM to formulate a reasonable range of alternatives. Established planning criteria, as outlined in 43 CFR 1610, guides the alternatives development process. The purpose and need for the proposed action defines the range of alternatives to be considered. The BLM must analyze a range of reasonable alternatives but is not required to analyze in detail every possible alternative or variation. The BLM developed a range of alternatives in the Draft RMP/EIS to resolve conflicts among resources and resource uses and to meet the purpose and need and other goals. These goals are consistent with NEPA regulations at 40 CFR 1501(c). It is the policy of the BLM, as derived from various laws, including the FLPMA of 1976 (43 USC 1701 et 12 seq.), to encourage development of mineral resources to meet national, regional, and local needs. FLPMA's multiple use mandate does not require that all uses be allowed on all areas of the public lands. Rather, FLPMA obliges the agency to evaluate and select an appropriate balance of resource uses through the land use planning process, a process that inherently involves tradeoffs between competing uses. The BLM has wide latitude to allocate the public lands to particular use and to employ the mechanism of land use allocation to protect certain resource values or, conversely, to develop some resource values to the detriment of others, short of unnecessary or undue degradation. The action alternatives for each agency were designed to address the planning issues, fulfill the purpose of and need for the RMPA/EIS (outlined in the Purpose of and Need for the RMPA and EIS), and meet the BLM's multiple-use mandates of FLPMA (43 USC 16 1716). The BLM appropriately evaluated a reasonable range of alternatives that considered designating wild and scenic river segments as suitable for inclusion in the National Wild and Scenic Rivers system.
Thorne	Rich	No organization name	None	5	6	Wilderness Characteristics	208.1200.00	What is the difference between a Wilderness Area and "managing to minimize impacts on wilderness characteristics"?	Wilderness Areas are those designated by Congress. They fulfill the qualities of wilderness (natural, solitude or primitive and unconfined recreation, undeveloped, untrammeled, and other features). Lands may exhibit wilderness characteristics. Lands with wilderness characteristics (LWCs) are those which exhibit the character and qualities of Wilderness Areas, but have not been designated by Congress
Spindler	Mike	The Wildlife Society	None	83	9	Wilderness Characteristics	208.1200.00	Of the 13 million acres of federal lands contained in the planning area the RMP/DEIS states that 96% meet LWC criteria, but Alternative B recommends only 2.7%, or 363,000 acres, to be managed for prioritizing wilderness properties over other possible multiple uses. Zero acres are recommended for similar LWC priority in Alternatives C1, C2, and D. I support more acreage of this protection in Alternative B. Acreage in Alternative C1 if chosen should be increased from zero to some mid-range value; C2 should be rejected. I support a range of alternatives with at least 20% LWC acreage in B (2.6 million acres) and a compromise level of 10% in C1 (1.3 million acres). Some of the LWC areas are watersheds that I am familiar with and that I have personally visited: Atigun, Alatna, Chandalar, Dulbi, Hogatza, upper Jim, Kilolitna, Kanuti and Sulukna Rivers. I can attest that they have high quality scenic, wilderness, habitat, and recreational values.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.
Spindler	Mike	The Wildlife Society	None	83	10	Wilderness Characteristics	208.1200.00	Two LWC river corridors should be designated: (1) Jim River from Dalton Hwy to Kanuti Refuge eastern boundary; and, (2) Kanuti River from the Dalton Highway to Kanuti Refuge eastern boundary. These two highly scenic stretches of BLM land have outstanding wilderness characteristics, accessibility from the Dalton Highway by recreationists, and important values for fish and wildlife conservation. I support management actions listed in Alternative B to maintain LWC (Table 2-8 pg. 2-32). Some of the areas I list above could be made congruent with ACECs in Alternative B or the Ecological Benchmarks in Alternatives B and C1.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.
Raskin	David	Friends of Alaska National Wildlife Refuges	None	88	6	Wilderness Characteristics	208.1200.00	We support increased LWC acreage in Alternative B of 20% (2.6 million acres), 10% in C1 (1.3 million acres), and 5% in C2 (665,000 acres). Of 13 million acres of federal lands in the planning area, the DEIS states 96% meets LWC criteria, but Alternative B recommends only 2.7% or 363,000 acres, be managed for wilderness character over other uses. Zero acres are recommended for similar LWC priority in Alternatives C1, C2, and D. * We recommend two LWC river corridors be designated: (1) Jim River from Dalton Hwy to Kanuti Refuge's eastern boundary and (2) Kanuti River from the Dalton Highway to Kanuti Refuge eastern boundary. These scenic stretches of BLM land have outstanding wilderness characteristics, accessibility from the Dalton Highway by recreationists, and important values for fish and wildlife conservation. * We support management actions in Alternative B to maintain LWC and believe some of the areas identified above could be subsumed within ACECs in Alternative B or the Ecological Benchmarks in Alternatives B and C1. * We believe it is inimical to sound resource conservation to manage any of the above-listed LWC lands to emphasize other multiple uses while applying management restrictions to reduce impact on wilderness characteristics. For example, Alternative C1 is supposedly a blend between protection and development but shows only 5% of the area withdrawn from mineral entry, the most likely source of impacts.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.
Berendzen	Steve	U.S. Fish and Wildlife Service	None	134	5	Wilderness Characteristics	208.1200.00	Arctic Refuge supports evaluating and designating all lands adjacent Arctic NWR as eligible acreage for Lands with Wilderness Characteristic. This would include the lands in the outer corridor of PLO 5150 Utility Corridor as well as areas adjacent to the Arctic NWR such as Accomplishment Creek (designated LWC in Alternative B) Figure 2.8. The Refuge supports managing these lands to protect Wilderness Characteristics. The adjacent Arctic Refuge lands have been recommended for Wilderness Designation (Revised CCP - 2015). The Accomplishment Creek block designated as LWC under Alternative B would complement Arctic NWR's management goals in this area of the BLM CYRMP.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150 or any other PLOs, and it allocates all lands with wilderness characteristics to be managed for emphasis of other resource values and multiple uses.
Cole	Jeanie	Alaskans for Wildlife	None	142	4	Wilderness Characteristics	208.1200.00	Managing lands to maintain wilderness characteristics (naturalness, and opportunity for solitude and primitive recreation) in the utility corridor was dropped from detailed analysis even though most of the utility corridor has such characteristics. None of the alternatives would manage these lands to protect or maintain wilderness character. The rationale for dismissing wilderness characteristics from analysis was that PLO 5150 withdrew and reserved lands as a utility and transportation corridor consistent with section 17(c) of ANILCA and that maintaining lands with wilderness character is not consistent with those purposes. All of the action alternatives recommend revoking PLO 5150 in the outer corridor. Additionally alternatives C2 and D recommend revoking PLO 5150 in its entirety and designating the inner corridor as an administrative utility corridor (Map 2.33). All the action alternatives propose management options that are consistent with and support the purposes of PLO 5150, while at the same time recommending revoking all or most of PLO 5150, therefore it is inappropriate to dismiss all consideration of lands with wilderness characteristics in the outer corridor. Since the proposal is to remove PLO 5150 in the outer corridor, its purpose cannot be used as a reason to avoid analyzing lands with wilderness characteristics within the outer corridor. We recommend that the BLM consider management of lands with wilderness characteristics in the outer utility corridor in the final EIS.	The BLM considered a range of reasonable alternatives in the Draft RMP/EIS, including alternatives analyzed in detail and those not analyzed in detail. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which ranged from revocation (in part or full) to maintaining PLO 5150 and ANCSA 17(d)(1) withdrawals. The Proposed Plan, Alternative E, does not recommend revoking PLO 5150 or any other PLOs, and it allocates all lands with wilderness characteristics to be managed for emphasis of other resource values and multiple uses.
Gestring	Bonnie	Earthworks	None	146	58	Wilderness Characteristics	208.1200.00	[We support the BLM's continued management of the Central Arctic Management Area (CAMA) Wilderness Study Area (WSA) for its wilderness characteristics. The ROW exclusions for these lands, which help to protect freshwater emergent wetlands, among other resources, should be maintained.] Management consideration should also be paid to adjoining and nearby BLM lands that are not formally within the CAMA WSA. BLM lands west of the Kurupa River, and between the Kurupa and Oolamnagavik Rivers should be managed for their wilderness characteristics. Such prescriptions will streamline the management of BLM lands within the region and help insulate the WSA's values from adjoining lands under different ownership and management.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.

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Gestring	Bonnie	Earthworks	None	146	59	Wilderness Characteristics	208.1200.00	Generally, we are supportive of BLM's approach to LWCs under Alternative B. Below we articulate some ways that the plan can be improved. In its discussion of climate change, BLM should elaborate on how LWCs will offer management conditions for ecosystem adaptation in a warmer and climatically uncertain future. While opportunities for solitude and recreation are some of the benefits of LWCs, managing these lands for their wilderness character, and specifically, naturalness, also helps to ensure their ecological integrity. Within this section, BLM should address the latest science on how large, connected, and unfragmented landscapes are believed to offer some of the most ideal conditions for ecosystem resiliency in a climate-changed world.62 62 Mawdsley, J. R., O'Malley, R., & Ojima, D. S. (2009). A review of climate-change adaptation strategies for wildlife management and biodiversity conservation. Conservation Biology, 23(5), 1080-1089. Alternative B calls for 363,000 acres of BLM lands across eight tracts to be specifically managed for their wilderness characteristics. Approximately 33 percent of these lands (118,000 acres) will be managed to protect these characteristics in high value watersheds. Three of the LWC tracts are below the 5,000-acre minimum that generally constitutes the size of an area managed for its wilderness character. These areas, including the Ishtalitna Creek Hot Springs, McQuesten Creek, and Redlands Lake tracts, should all be expanded to at least 5,000 acres in size. Alternative B calls for 4,716,000 acres (35 percent of the decision area) to be managed to emphasize other multiple uses, while applying management restrictions to reduce impacts on wilderness characteristics. On these areas, we encourage BLM to use complementary and overlapping management designations, such as through VRM designations and WSR eligibility, to ensure that ecological integrity is maintained and that all forms of disturbance are minimized. Under Alternative B, a total of 937,000 acres of LWCs would be open to ROW location. This is an unacceptably high amount of land area, particularly when considering the potential for cumulative impacts of access from various locations. We encourage BLM to increase ROW exclusion areas in places of high ecological and watershed value.	The BLM has and will incorporate the best available and most appropriate information regarding LWCs, unfragmented landscapes, and untrammeled lands. The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.
Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	21	Wilderness Characteristics	208.1200.00	The protection of Lands with Wilderness Characteristics furthers BLM's mission "to sustain the health, diversity and productivity of public lands that serve both current users and future generations." Lands with Wilderness Characteristics are arguably one of the most sensitive natural resources within the Central Yukon RMP planning area. Unlike sustainable resources, once development occurs in an area, its wilderness character is generally lost to future generations. Additionally, managing for LWC priorities is a mechanism to protect other resource values and uses such as subsistence, wildlife, fisheries (high and medium value watersheds), benchmark areas, floodplains, wetlands, special designations (ACECs, BCA, WSR), and scenic values. Despite the high value and sensitive nature of wilderness character, little to no percentage of land in the plan is recommended to be set aside for the protection of wilderness characteristics. Lands with wilderness characteristics are considered an irretrievable resource, yet comprise from 0 to 3% of the total 12.7 million acres of lands recognized as having wilderness characteristics. We urge the BLM reevaluate its limited allocation scope for LWC across all alternatives. This includes consideration that Lands with Wilderness Characteristics selected by the State and conveyed would no longer retain LWC designation and these wilderness characteristics could be irrevocably lost. * Alternative B best supports the preservation of wilderness character. Alternative B gives protections for ROW avoidance, closure to timber removal, eligible or suitable WSR segments, Visual Resource Management (VRM) classes I and II, and ACECs. This alternative is most in keeping with the Koyukuk, Nowitna, and Innoko Refuge land management.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.
Magee	Susan	State Of Alaska	None	165	16	Wilderness Characteristics	208.1200.00	2. Lands with Wilderness Characteristics – Issue: LWC Policy implementation conflicts with ANILCA and should not be implemented in the CYRMP of Alaska. * Resolution: Do not carry forward LWC related decisions in Alternatives B and C-1 into the final plan. * Discussion: The State has been on-record since Secretary Salazar first issued Secretarial Order 3310 on December 23, 2010 that the "Wild Lands" Policy (now being implemented as Lands with Wilderness Characteristics (LWC) - see Table 2-8, page 2-32) will have a devastating effect on Alaska's people, economy, and land use and access, and that it conflicts with both ANILCA and FLPMA.9 9 See enclosed January 26, 2011 letter (with attachment) from Governor Sean Parnell to Secretary Salazar. On April 14, 2011, the United States Congress passed the Department of Defense and Full-Year Continuing Appropriations Act, 2011 (Pub. L. 112-10) (2011 CR), which included a provision (Section 1769) that prohibits the use of appropriated funds to implement, administer, or enforce Secretarial Order 3310 in Fiscal Year 2011. As a result, Secretary Salazar issued a Wilderness Policy Memorandum dated June 1, 2011 to confirm that pursuant to the 2011 CR, the BLM will not designate any lands as "Wild Lands" but will instead maintain inventories of lands, including those with wilderness characteristics, and will consider LWC during land use planning and when making project-level decisions. The memorandum specifically directs the Deputy Secretary to work with BLM and interested parties to develop recommendations regarding the management of BLM lands with wilderness characteristics. On January 19, 2021 Secretary Bernhardt issued Secretarial Order 3393, rescinding Order 3310; however, since this planning process was begun when Order 3310 was still in place, the plan contains proposed LWC management direction that the State has objected to since the beginning of the Central Yukon planning process. We, therefore, reiterate the reasons for our objections to implementing LWC related policy direction in Alaska generally, and in the CYRMP as proposed in Alternatives B-D. The 2012 Central Yukon Preparation Plan estimated that more than 90% of BLM lands in the planning area will be classified as LWCs. The 2016 Central Yukon AMS states that "almost all of [BLM lands within] the planning area meets the criteria for lands with wilderness characteristics…" Given that the majority of federal lands in Alaska contain wilderness characteristics as described in BLM Manual 6301 dated 2/25/11 (e.g., 99% of the Eastern Interior planning area also qualified as LWCs), implementing restrictive measures to protect LWCs could result in a continual erosion of available multiple-use lands and potentially lead to wholesale limits on uses and activities in vast areas of the State. This threatens the balance Congress achieved for the designation of public lands through ANILCA, as stated in Section 101(d). Over 100 million acres of land in Alaska was designated in 1980 by ANILCA as CSUs and other conservation designations. Of that, fifty-seven million acres was designated as wilderness. Over half of the nation's Wilderness Preservation System is in Alaska. A significant portion of that acreage is located on national wildlife refuge and national park lands within and immediately adjacent to the planning area. In addition, while ANILCA Section 1320 grants BLM authority to conduct wilderness reviews "from time to time," it also specifically exempts BLM lands in Alaska from FLPMA Section 603. As a result, BLM is not allowed to manage lands recommended for wilderness designation to the non-impairment standard and is instead directed to manage in accordance with applicable land use plans. Notwithstanding any other provision of law, section 603 of the Federal Land Policy and Management Act of 1976 shall not apply to any lands in Alaska (emphasis added). However, in carrying out his duties under section 201 and 202 of such Act and other applicable laws, the Secretary may identify areas in Alaska which he determines are suitable as wilderness and may, from time to time, make recommendations to the Congress for inclusion of any such areas in the National Wilderness Preservation System, pursuant to the provisions of the	In March 2012, the BLM issued policies relating to lands with wilderness characteristics – BLM Manual 6310 "Conducting Wilderness Characteristics Inventory on BLM Lands" and BLM Manual 6320 "Considering Lands with Wilderness Characteristics Inventory in the BLM Land Use Planning Process." In January 2021, the BLM updated BLM Manual 6310. The Central Yukon RMP's LWC inventory still compiles with BLM Handbook 6310. Secretary Salazar's 2011 Secretarial Order 3310 is no longer valid.
Magee	Susan	State Of Alaska	None	165	17	Wilderness Characteristics	208.1200.00	Given all the exceptions in ANILCA that apply to Congressionally designated wilderness and wilderness study areas in Alaska, it is highly unlikely that BLM could implement the LWC policy direction without running afoul of this statutory direction and intent. With or without a wilderness review, BLM is obligated to manage inventoried LWC for multiple-use. In the case of recommended wilderness, multiple-use management is to continue until Congress acts upon a recommendation submitted by the Secretary and the President. To do otherwise is circumventing direction from Congress in ANILCA Section 1320. We, therefore, reiterate our request for BLM to refrain from applying the LWC policy direction in Alaska generally, and implementing any of the management direction in the CYRMP that prioritizes protecting LWC over other multiple uses or applies management prescriptions to reduce impacts to LWC, as represented in Alternatives B and C-1.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the Draft RMP/EIS, which included different management prescriptions regarding lands with wilderness characteristics. The Proposed Plan, Alternative E, allocates all lands with wilderness characteristics to be managed for emphasis of other resource values and multiple uses.
Schutt	Aaron	Doyon Limited	None	173	25	Wilderness Characteristics	208.1200.00	Based upon a reasonable consideration of these factors, much of the land area in the vicinity of Doyon-owned or selected lands is not suitable for management for maintenance of wilderness characteristics. Much of this land area consists of lands that have been selected by Doyon under ANCSA, potentially limiting BLM's ability to protect wilderness characteristics on the lands over the long term	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS, which included different management prescriptions regarding lands with wilderness characteristics. The BLM considered Doyon access to Doyon-owned lands when developing the Proposed Plan. The Proposed Plan, Alternative E, allocates all lands with wilderness characteristics to be managed for emphasis of other resource values and multiple uses.

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Schutt	Aaron	Doyon Limited	None	173	26	Wilderness Characteristics	208.1200.00	In addition, to the extent that lands to be considered for maintenance of wilderness characteristics may surround Doyon-owned lands, Doyon will require access to non-Federal inholdings. Such access, to which Doyon is entitled under the provisions of ANILCA, could limit BLM's ability to effectively manage the lands to protect their wilderness characteristics. Accordingly, proposals to designate areas in the vicinity of Doyon-owned or selected lands as areas where wilderness characteristics would be maintained are not supported by BLM policy and guidance governing the consideration and management of lands with wilderness characteristics in land use planning.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS, which included different management prescriptions regarding lands with wilderness characteristics. The BLM considered Doyon access to Doyon-owned lands when developing the Proposed Plan. The Proposed Plan, Alternative E, allocates all lands with wilderness characteristics to be managed for emphasis of other resource values and multiple uses.
Shon Jodwalis	Lisa	No organization name	None	197	1	Wilderness Characteristics	208.1200.00	I have visited Toolik Field Station and the surrounding ACEC numerous times. This does NOT qualify as LWC: as long ago as 2011 there were over 40,000 research sites in the ACEC (Personal communication with staff at Toolik Field Station GIS, 2011. See map following references). The area is crisscrossed with boardwalks, research experiments that include exclosures, enclosures, flux towers and more. During the field season, the area is busy with people doing field work and with helicopter traffic. To use this as the sole LWC unit in the planning area is inappropriate and misleading because it does not meet the LWC inventory criteria and there are hundreds of thousands of acres that do.	The BLM has and will incorporate the best available and most appropriate information regarding LWCs, unfragmented landscapes, and untrammeled lands. The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS, which included different management prescriptions regarding lands with wilderness characteristics. The Proposed Plan, Alternative E, allocates all lands with wilderness characteristics to be managed for emphasis of other resource values and multiple uses.
Shon Jodwalis	Lisa	No organization name	None	197	2	Wilderness Characteristics	208.1200.00	I have highlighted what I view as false and unsupported assumptions. The Draft Plan does not provide evidence or forecasts that show that widespread development or surface-disturbing opportunities will remain low and not affect LWCs. Therefore, the conclusion is false at best. Many of the existing and proposed large development projects in Alaska target highly remote, currently or recently wild areas that receive limited visitation, e.g. Pebble Mine, Pogo Mine, and Willow Project to name just three. "Untrammeled" is defined as "unconfined" or "unconstrained". It does NOT mean trampled or disturbed. In the context of the Wilderness Act, it means that human travel (as permitted by the Act) is not blocked by constructed barriers. In 2012 the BLM Manual 6310-Conducting Wilderness Characteristics Inventory on BLM Lands defined "untrammeled" as "Unhindered and free from modern human control or manipulation." The Plan should revisit LWC criteria with this in mind as it changes the evaluation of impacts	While Section 201 of Federal Land Management Policy Act (FLPMA) requires the BLM to maintain, on a continuing basis, an inventory of all public lands and their resources and other values, including LWCs, it does not preclude them from management consistent with multiple-use until designation by Congress. The BLM will use the land use planning process to determine how to manage lands with wilderness characteristics as part of the BLM's multiple-use mandate. The RMP analyzes the effects of Plan alternatives on LWCs, and management of LWCs on other resources and resource uses.
Shon Jodwalis	Lisa	No organization name	None	197	6	Wilderness Characteristics	208.1200.00	Spooky Valley is wild, uniquely spectacular, and has unusual biological value as an ecological "sky island" (see Farquhar, N. and Schubert, J. eds, 1980. Ray Mountains and Central Alaska: Environmental Analysis and Resources Statement. Middlebury College Press, Middlebury, VT). I have heard anecdotally that some Native Alaskans in the region feel that Spooky Valley has spiritual significance and I advise further consultation and follow-up with people from the Tanana and other relevant areas. This area also meets all the criteria for Lands with Wilderness Characteristics (LWC) and should be managed in accordance.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.
Shon Jodwalis	Lisa	No organization name	None	197	8	Wilderness Characteristics	208.1200.00	The core Brooks Range area, especially around the Dalton Highway from Coldfoot to Slope Mountain, possesses extraordinary characteristics that the visiting public cherish and willingly travel hundreds or thousands of miles to experience. Every effort should be made to manage these lands for Dall Sheep and other wildlife, for primitive recreation, and for extraordinary visual (scenic) values. (See also the Dalton Highway Scenic Byway Corridor Partnership Plan, 2010).	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.
Crockett	Deantha	Alaska Miners Association	None	199	37	Wilderness Characteristics	208.1200.00	There should be no lands designated as Lands With Wilderness Characteristics. AMA strongly opposes the designation of, and special restrictions attached to, "Lands With Wilderness Characteristics." The concept is inherently flawed in Alaska because most BLM lands currently exhibit "wilderness characteristics" due to the lack of development and infrastructure. By managing with a goal to protect wilderness, BLM is essentially establishing Wilderness areas. In 1980, Congress through ANILCA determined the over 100 million acres of Alaska lands that should be Wilderness, and specifically excluded BLM lands from Wilderness designations. AMA strenuously objects to including "lands next to CSUs", since those CSU and Wilderness boundaries were extensively studied when ANILCA was being debated, and all necessary "buffers" were considered and included as part of the ANILCA designations. AMA strongly opposes "buffering the buffers."	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.
National Wildlife Refuges	Koyukuk	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Northern Unit of Innoko National Wildlife Refuges	205	8	Wilderness Characteristics	208.1200.00	We urge the BLM reevaluate its limited allocation scope for LWC across all alternatives. This includes consideration that Lands with Wilderness Characteristics selected by the State and conveyed would no longer retain LWC designation and these wilderness characteristics could be irrevocably lost.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	18	Wilderness Characteristics	208.1200.00	Lands with Wilderness Characteristics make up 96% of the decision area but the BLM has proposed to allocate essentially 3% of the planning areas to manage LWCs to protect their characteristics. Wilderness areas can provide buffers for extinction risk and serve as a stronghold for intact ecosystems (DiMarco et al 2019). The Service recommends the BLM provide a more balanced allocation of LWC resources (to protect LWC characteristics as a priority) across all alternatives and in combination with other compatible environmental resources such as wildlife, fisheries (high and medium value watersheds), benchmark areas, ACECs, suitable Wild and Scenic Rivers, floodplains, wetlands, and scenic values.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	62	Wilderness Characteristics	208.1200.00	We believe it is necessary that BLM provide other protective measures for the benchmark system in the interim, until at such time mineral withdrawals are put in place. These protective measures include the following: a) BLM manage Lands with Wilderness Characteristics (LWCs) in all benchmarks to protect those characteristics as a priority over other multiple uses, b) BLM recommend to Congress that the 11 suitable rivers listed in Alternative B be designated into the National Wild and Scenic Rivers System, c) BLM require application of right-of-away-exclusions, no-surface occupancy, and travel management restrictions (such as timing and season) within the 100-year floodplain of streams and rivers within high-value watersheds to protect hydrological connectivity within benchmark areas, and d) BLM require application of protections similar to that of floodplains in wetland areas. In addition, BLM should apply appropriate visual classifications in appropriate areas to provide further protection.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	70	Wilderness Characteristics	208.1200.00	As currently proposed it appears that BLM established resource use allocations in the alternatives with a clear majority supporting intensive development activities and resource uses such as mining, timber harvest, and ROW location. BLM allocated a small or no percentage of land for resources that would restrict development activities such as LWC, ACEC, or Wild and Scenic River. The following table shows the allocation assigned to the various development activities in comparison to LWC as a percentage of the decision area (acres) by action alternative. Lands with wilderness characteristics are considered an irretrievable resource, yet comprised from 0 to 3% of the total 12.7 million acres of lands recognized as having wilderness characteristics. We urge the BLM reevaluate its limited allocation scope for LWC.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	74	Wilderness Characteristics	208.1200.00	Given the emphasis that FLPMA placed on managing both renewable and nonrenewable resources in a balanced manner so as to meet the needs of both current and future generations and considering that both developable resources and environmental resources are to be perpetually maintained, we urge BLM to address how BLM's current proposed allocation of development and resource uses will ensure future generations have a chance to enjoy the values provided by LWC. Also LWC on lands selected by the State and conveyed would no longer retain the LWC designation and these wilderness characteristics could be irrevocably lost. Across all action alternatives the BLM has opened the entire 13.1 million acre planning area to locatable mineral entry (and thus the loss of LWCs). We request BLM provide an alternative in which the sustainability of these lands with wilderness characteristics is incorporated into the approved Plan and if BLM elects to not provide such an alternative please explain why.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.

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Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	75	Wilderness Characteristics	208.1200.00	Furthermore, we request BLM provide a more balanced allocation of LWCs resources (protecting LWC characteristics as a priority) by overweighting its allocation of LWC across all action alternatives, in consideration of LWCs sensitive and irretrievable qualities. By emphasizing LWC allocation toward protection of its wilderness characteristics it addresses BLM's mission to sustain the health, diversity and productivity of public lands that serve both current users and future generations. If BLM elects to not provide a more balanced allocation of the LWC resource (managed to protect those characteristics as a priority over other multiple non-compatible uses) we request a thorough explanation.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.
Fox	Joanna	U.S. Fish and Wildlife Service	Kanuti National Wildlife Refuge	208	13	Wilderness Characteristics	208.1200.00	Wilderness and lands with wilderness characteristics (LWCs) often provide some of the most valuable fish and wildlife habitat, especially if these areas include important spawning/breeding, rearing, migration, and overwintering habitat. Managing for LWC priorities is therefore a strong tool that can be used to protect other important resource values and uses, including wildlife, fisheries, wetlands and subsistence. The draft Central Yukon RMP does not include a range of alternatives that represents any blend of resource protection and resource development in this critically important area. In fact, three of the four action alternatives (C1, C2 and D) allocate zero acres to be managed to protect wilderness character. The fourth, Alternative B, is supposed to be the most protective of resource values, yet less than 3 percent of the total 12.7 million acres in the planning area recognized as having wilderness characteristics are allocated to be managed to protect wilderness character. We very strongly recommend BLM reevaluate these allocations across the range of alternatives and adjust them to reflect an appropriate range between resource protection and resource development.	The BLM considered a range of reasonable alternatives, including alternatives analyzed in detail and those not analyzed in detail, in the Draft RMP/EIS. The Proposed Plan was developed from the range of alternatives identified in the RMP/EIS.
Crockett	Deantha	Alaska Miners Association	None	199	16	Wilderness Study Area (CAMA)	211.0400.00	Wilderness Recommendations - should not be included in the plan except for the existing Wilderness Study Area (ANILCA Section 1004).	The plan does not make any recommendations for wilderness designation. Because of its status as a WSA, only Congress can release the area from further consideration as wilderness.
Crockett	Deantha	Alaska Miners Association	None	199	38	Wilderness Study Area (CAMA)	211.0400.00	Wilderness Study Area - Approximately 90% of the Central Arctic Management Area identified in ANILCA Section 1004 as a Wilderness Study Area is now State owned or ANCSA owned (mostly by the Arctic Slope Regional Corporation). With the exception of the small "Nigu River" area, the remaining BLM lands within this Wilderness Study Area are surrounded by State and ANCSA lands and should not be recommended for or managed as Wilderness. This BLM land may be needed for access to the adjoining State and ANCSA lands.	The plan does not make any recommendations for wilderness designation. Because of its status as a WSA, only Congress can release the area from further consideration as wilderness.
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	11	Wildland Fire Ecology and Management	208.0800.00	In SOP FM-6, it is required to get approval from the BLM before using heavy equipment or off-road vehicles in a fire. This requirement should be deleted or modified to allow exceptions when the operator is unable to reach a BLM authority due to poor communications or time of day. For example, if a fire were to occur due to natural or man-made causes on a weekend, it could take hours before BLM approval could be attained allowing a fire to rapidly spread in dry of windy conditions.	The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
Crockett	Deantha	Alaska Miners Association	None	199	42	Wildland Fire Ecology and Management	208.0800.00	Section 3.2.8 - Wildland Fire Ecology and Management - Wildland Urban Interface Analysis. We question the use of this concept in an area that has no "urban" land. BLM defines "Wildland Urban Interface" as a "zone where structures and other human development" meet fuels or undeveloped land. This is counter to the commonly understood meaning of "urban" (MerriamWebster "of, relating to, characteristic of, or constituting a city"). The RMP then defines timber harvest and land closure management tools for the entire region, expanding their scope and extent of authority to include individual cabins, by listing any "area on or next to private and public property" as an urban interface. We recommend deleting reference to "wildland urban interface" as it is not appropriate in an area with no urban land.	The planning area is comprised of forested lands and structures which is consistent with the BLM's definition of WUI - "a zone where structures and other human development meets fuels or undeveloped land." The BLM will defer to the agency definition of WUI, not the Merriam Webster definition of WUI.
Crockett	Deantha	Alaska Miners Association	None	199	66	Wildland Fire Ecology and Management	208.0800.00	F.2.6 Wildland Fire Management (FM) In SOP FM-6, it is required to get approval from the BLM before using heavy equipment or off-road vehicles in a fire. This requirement should be deleted or modified to allow exceptions when the operator is unable to reach a BLM authority due to poor communications or time of day. For example, if a fire were to occur due to natural or man-made causes on a weekend, it could take hours before BLM approval could be attained allowing a fire to rapidly spread in dry or windy conditions.	The authorizing officer has discretion when applying SOPs to a specific project. The BLM will determine which SOPs should apply to a given project dependent upon the nature of the activity and the level of disturbance.
Thorne	Rich	No organization name	None	5	2	Wildlife	208.0700.00	Does the designation of 572,000 acres as "critical caribou habitat" in the Ray Mts preclude mining the rare earth minerals present there? Or is the CCH located differently from where the minerals occur?	The Proposed RMP/Final EIS noted that core caribou habitat overlap lands within high rare earth mineral potential in the Ray Mountains. Proposed management of lands designated as core caribou habitat would include recommending a withdrawal from mineral entry under Alternative C1.
Thorne	Rich	No organization name	None	5	9	Wildlife	208.0700.00	Golden and Bald eagle surveys - who pays for these? There is a Golden eagle nest 4 miles up the Wild River from the confluence with the Koyukuk - will that kill the Ambler Road? What defines "near nests"?	The objective in Chapter 2 has been revised to state "within 0.5 miles" from golden eagle nests, consistent with the actions in Table 2-5.
Richards	Mark	No organization name	None	13	1	Wildlife	208.0700.00	One thing that jumped out at me in the preferred Alternative C2 was the lack of any habitat protections for Dall sheep, which, of course, are important to all sheep hunters and conservationists. I support readdressing that to incorporate the Dall sheep protections within Alternative C1 should the BLM preferred alternative not end up revoking the top-filed PLO 5150 lands, and they revert back to the state. I think that's an important point, because it's likely many Alaskans want to see those lands revert back to the state based on Section 906(e) of ANILCA, and also our Alaska Statehood Act that makes those selections valid. However, if that doesn't happen, and, frankly, it appears unlikely with the new administration, I'd like to see BLM apply something like an and-if- this-happens-then type of clause in any preferred alternative to better protect Dall sheep habitat if those top selected lands don't revert back to the state.	The BLM has included a range of alternatives related to Dall sheep habitat management that would meet the wildlife goals. Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of Dall sheep habitat; these would be described in the Record of Decision for the RMP/EIS.
Ebel	Stan	Buckhorn Llama Co., Inc.	None	33	2	Wildlife	208.0700.00	As indicated in my verbal comments, I am attaching a peer-reviewed paper, Pneumonia in Bighorn Sheep: Risk and Resilience, as additional documentation that supports your position regarding disease transmission between domestic caprids and wild caprids. It also cites research that limits the disease issue to transmission between wild and domestic caprids and specifically eliminates camelids/llamas. This paper is considered a summary document on the subject of disease transmission (specific to M. ovi.) from domestic animals to wild sheep. It is a collaboration of 16 researchers/authorities that participated in the research and interpretation of the findings over the last 20 years and includes a significant bibliography of supporting research and documentation. Invited Paper: The Journal of Wildlife Management; DOI: 10.1002/jwmg.21309 Pneumonia in Bighorn Sheep: Risk and Resilience; Cassirer_et_al-2017 Last paragraph page 3, column 1: Many Mycoplasma spp. are host-specific, and the host range of M. ovipneumoniae is considered to be limited to Caprinae (Nicholas et al. 2008). Respiratory disease following infection with M. ovipneumoniae also has been reported in captive Dall's sheep and other wild Caprinae, including mountain goats (Oreamnos americanus), and muskox (Ovibosmoschatus; Black et al. 1988, Handeland et al. 2014, Wolf et al. 2014). Page 3, column 2, end of first paragraph continued from column 1: A host-specific pathogen commonly carried by domestic sheep and goats is consistent with the high mortality observed in captive bighorn sheep when commingled with domestic sheep but not when commingled with non-Caprinae livestock including cattle, horses, and llamas (Foreyt 1992,Foreyt and Lagerquist 1996, Besser et al. 2012a).	The EIS has been revised to remove reference to camelids and instead addresses "pack animals." The language now states: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat. To minimize the potential for disease transmission to wildlife, applications for the use of pack animals would be reviewed and permitted on a project-specific basis.

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Woodruff	Scott	No organization name	None	77	1	Wildlife	208.0700.00	The DCY-RMP-EIS states on page 2-22, Table 2-4 Wildlife. Goals: second bullet point: "Prevent disease transmission between domestic animals and wildlife." This is a reasonable goal. There are many domestic animals. Some domestic animals may pose more of a threat than others, but all domestic animals should be treated with equal scrutiny, and risks, as to any threat to wildlife. Keeping in mind there are some diseases endemic in some wildlife populations already. Domestic animals could be dogs, cattle, goats, sheep, horses, llamas, and reindeer. On page 2-29, Table 2-6, Recreation and Visitor Service, under All Action Alternatives it states: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat. Use of camelids (including alpacas and llamas) as pack animals would be authorized as appropriate through the normal permitting process" The Wild Sheep Working Group 2012 and the BLM Manual 1730 does not have management recommendations that include Camelids (pack llamas). Therefore, it would be arbitrary to single out the pack llama as a suggested disease threat. Pack llamas should be treated in the same manner as Equids (pack horses), and pack horses are not mentioned as a domestic animal in this paragraph	The EIS has been revised to remove reference to camelids and instead addresses "pack animals." The language now states: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat. Use of pack animals would be reviewed and permitted on a project-specific basis."
Woodruff	Scott	No organization name	None	77	4	Wildlife	208.0700.00	I respectfully request that you consider on page 2-29, General, all Action Alternatives, the last sentence of the 4th bullet point "Use of camelids (including alpacas and llamas) as pack animals would be authorized as appropriate through the normal permitting process", be taken out as it is an arbitrary application and scrutiny of an established recreational pack animal. I respectfully request that you consider on page 3-145, 3rd paragraph, second sentence "The use of camelids as pack animals would still be considered in these areas on a case-by-case basis", be taken out as it is an arbitrary application and scrutiny of an established recreational pack animal. The appropriate wording might read: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat.". However, if the BLM feels a provisional regulation of non-caprid pack animals is necessary, I'd recommend this concluding sentence: "Use of non-caprid pack animals would be authorized as appropriate through the normal permitting process." This language eliminates the arbitrary suggestion that camelids present a greater disease threat to wild sheep than equids, etc. This language would also be consistent with your neighboring colleagues addressing the same issues, that in their recently completed BLM-Bering Sea-Western Interior EIS-RMP and ROD that states: "To minimize the potential for disease transmission to wildlife, applications for the use of pack animals will be reviewed on a project-specific basis." While I don't believe it is necessary to include a reference to the management of Camelids in a long term RMP-EIS manual, all of the above suggested wording changes gives the BLM the same draft management guidelines and authority without arbitrary singling out pack llamas as a threat to wildlife.	The EIS has been revised to remove reference to camelids and instead addresses "pack animals." The language now states: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat. Use of pack animals would be reviewed and permitted on a project-specific basis."
Woodruff	Scott	No organization name	None	77	5	Wildlife	208.0700.00	Disease transmission of concern between domestic animals and wildlife tend to focus on species specificity, and of the same family order. Wild sheep are in the Caprinae subfamily of the Bovidae family in the Ruminatia suborder, as are domestic sheep and goats. Like the Equids, Camelids have significant specie taxonomic separation, as pack llamas are not in the Bovidae family nor the suborder Ruminatia. Pack llamas have no endemic diseases in their population that are a threat to wild sheep or other wildlife. This should not be surprising because of this taxonomic separation. We see time and time again where misinformed managers, special interest groups, and the general public regurgitate this scientifically false information, arbitrarily grouping domestic llamas with domestic sheep and goats for the perceived protection of wild sheep. In 2015, this was indicated through the early public comment period in the Draft Central Yukon RMP scoping phase for the development of this RMP.	The EIS has been revised to remove reference to camelids and instead addresses "pack animals." The language now states: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat. Use of pack animals would be reviewed and permitted on a project-specific basis."
Woodruff	Scott	No organization name	None	77	6	Wildlife	208.0700.00	There is significant peer reviewed research and professional scientific position statements that gives little validity as to a disease threat from pack llamas to wildlife. Also, the Alaska Department of Fish and Game, responsible for the health of wild sheep in Alaska, has stated they do not consider llamas to be a threat to wild sheep from disease transmission. In 2020, The American Association of Small Ruminant Practitioners (AASRP), over 1000 veterinarians strong, has issued the following policy statement on any proposed bans of camelids based upon the threat of disease to wild sheep on public land. "Policy Statement Concerning Camelid Ban in National Parks" "There exists concern that the entry of camelid pack animals (llamas, alpacas) onto public lands poses a potential risk of disease to resident endangered or threatened ungulate populations including Boreal Caribou, Northern Mountain Caribou, Central Mountain Caribou, Southern Mountain Caribou, Bighorn Sheep, Mountain Goat, Dall's Sheep, Stone's Sheep and Roosevelt Elk. The diseases of concern by National Parks and wildlife managers include: Mycoplasma ovipneumoniae, Mannheimia haemolytica, Mycobacterium avium paratuberculosis, Mycobacterium bovis, Pasteurella spp., contagious ecthyma, bovine viral diarrhea virus (BVDV), and bluetongue virus. Transmission of pathogens from cattle and sheep to wild ungulates under natural conditions has been well documented in the literature. Examples include respiratory disease and fatal pneumonia following contact between domestic and bighorn sheep (Schommer & Woolever, 2008), M. bovis from cattle to elk in Riding Mountain National Park (Garde et al., 2009), and BVDV from cattle to deer (Passler & Walz, 2010). However, there have been no peer-reviewed publications documenting pathogen transmission from camelids to wild ungulates or to domestic sheep and goats for the pathogens of concern. The American Association of Small Ruminant Practitioners is opposed to banning camelid pack animals on public lands until there is scientific justification for this action. Revised February 2020" (attached) The research paper from 2017, Pneumonia in Bighorn Sheep: Risk and Resilience, has additional documentation that supports your position regarding disease transmission between domestic caprids and wild caprids. It also cites research that limits the disease issue to transmission between wild and domestic caprids and specifically eliminates camelids/llamas. This paper is considered a summary document on the subject of disease transmission (specific to M. ovi.) from domestic animals to wild sheep. It is a collaboration of 16 researchers/authorities that participated in the research and interpretation of the findings over the last 20 years and includes a significant bibliography of supporting research and documentation. Invited Paper: The Journal of Wildlife Management; DOI: 10.1002/jwmg.21309 Pneumonia in Bighorn Sheep: Risk and Resilience; Cassirer_et_al-2017 (attached) Last paragraph page 3, column 1: Many Mycoplasma spp. are host-specific, and the host range of M. ovipneumoniae is considered to be limited to Caprinae (Nicholas et al. 2008). Respiratory disease following infection with M. ovipneumoniae also has been reported in captive Dall's sheep and other wild Caprinae, including mountain goats (Oreamnos americanus), and muskox (Ovibosmoschatus; Black et al. 1988, Handeland et al. 2014, Wolf et al. 2014). Page 3, column 2, end of first paragraph continued from column 1: A host-specific pathogen commonly carried by domestic sheep and goats is consistent with the high mortality observed in captive bighorn sheep when commingled with domestic sheep but not when commingled with non-Caprinae livestock including cattle, horses, and llamas (Foreyt 1992,Foreyt and Lagerquist 1996, Besser et al. 2012a)	The EIS has been revised to remove reference to camelids and instead addresses "pack animals." The language now states: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat. Use of pack animals would be reviewed and permitted on a project-specific basis."
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	10	Wildlife	208.0700.00	The impacts analyses did not sufficiently consider the trade-offs in valuing long-term sustainable multiple uses involving wildlife, as compared with short-term gains offered by extractive mining uses.	Chapter 3, Section 3.8 has been revised to include more discussion about the long term impacts on wildlife resulting from extractive mining uses.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	12	Wildlife	208.0700.00	We agree with the goals and objectives laid out in Table 2-4 (USBLM 2020, pg. 2-22), and the designation of moose, caribou, Dall sheep, and beaver as priority species for all alternatives. We question why apex predators such as grizzly bear or gray wolf were not also included. Presence of either of these two species at the top of the food chain is an indicator of a healthy ecosystem, therefore, we recommend consideration of both predators to your suite of priority species. These are iconic Alaska wilderness species that have largely been eliminated or substantially reduced throughout their former ranges south of Alaska and are important ecological components of adjacent national interest lands including national parks and national wildlife refuges. They could act as excellent indicator species.	Priority species are defined in the glossary as "A species in the planning area that is recognized as significant for at least one factor, such as density, diversity, size, public interest, remnant character, or age (BLM Handbook 1601)." The BLM must limit its list of priority species to meet this definition and from a practical standpoint, ability and capacity to manage for these habitats. As such, the BLM has kept the four priority species, though grizzly bear has been added to Section 3.2.7 as another important species. The gray wolf was already included in Section 3.2.7 as an important species.

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Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	13	Wildlife	208.0700.00	We appreciate that Alternative B designates ACECs to protect caribou ranges of Galena Mountain Herd, Ray Mountains Herd (Spooky Valley) and Hodzana Hills Herd (Upper Kanuti River). We also appreciate that Alternative C1 creates a different protective option, termed "Core Caribou Ranges" (Appendix A, Map 2.1), however, we believe that caribou are such an important resource that both Alternatives C1 and C2 should have designated Core Caribou Ranges for all three small herds. The Alaska Chapter also believes BLM should add the designation of a Core Caribou Range for the Hodzana Hills Herd, in addition to the Ray Mountain Herd and Galena Mountain Herd. There is compelling scientific documentation that the Hodzana Herd is discrete and of sufficient size to warrant permanent protective measures in any "blended" alternative (estimated 1,150-1,500 animals, Horne et al. 2014, or 700-1000 animals Longson 2020). We present an assortment of population estimates for these herds: Herd Hodzana HHH Source Horne et al. 2014 Hollis 2014 Longson 2020 Estimate 1,150-1,500 662 minimum count 700-1,000 Herd Ray Mtns. RMH Source Horne et al. 2014 Hollis 2011 Hollis 2014 Longson 2020 Estimate Avg. 1,245 (range 656-1,564) 1,200 853 minimum count 1,200 Herd Galena Mtn. GMH Source Robinson 1991 Robinson 1991 Longson 2020 Estimate 500 estimated in 1987 258 minimum count in 1987 162 (2012) These three small isolated mountain caribou herds represent an aspect of biodiversity unique to interior Alaska. Mager et al. (2014) reported genetic similarity to the larger northern mainland herds, but also noted each of these smaller herds "appeared relatively discrete" with a heterogeneity in ecotype that may be driven by differences in behavior, habitat, and predation risk. This warrants consideration and protection by BLM.	As noted by the commenter, the BLM considered protections for all three caribou herds under Alternative B. Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	14	Wildlife	208.0700.00	The DEIS should highlight recent estimates of the three herds and commit to continued monitoring of abundance and distribution in cooperation with other agencies like ADFG, NPS, and USFWS. (This is mentioned in the AMS, USBLM 2016 pg. 235, but we did not find where this specifically is carried forward in the RMP/DEIS). Such information would be essential to evaluate whether BLM-permitted development activities affect habitats and herd abundance or distribution and must be included in the final RMP/FEIS.	The BLM added an objective to Chapter 2, Wildlife, noting that monitoring programs will be continued in and/or support of ADFG.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	15	Wildlife	208.0700.00	We are concerned about BLMs overlooking of the Hodzana herd in the following statements: "Under all action alternatives, the amount of land segregated to locatable mineral entry would decrease, compared with Alternative A, for the GMH and RMH range, but it would increase for the HHH range" (USBLM 2020 CYRMP pg 3-83). "Under alternative C1… an additional 745,000 acres would be proposed for closure from May 1 through June 30 for caribou calving in the Galena and Ray Mountains core caribou ranges. These restrictions would preclude OHV travel in those regions and restrict access during that time period, but they would not prevent access during other times" (USBLM 2020 CYRMP pg. 3-155). We again question why the Hodzana herd is singled out for less protection. We recommend similar protective measures for all three small caribou herds in the selected alternative in the final RMP/FEIS: (1) ROW avoidance (Table J.5, pg J-36) (2) May 1-June 30 OHV restrictions (Table J.6, pg. J-38) (3) reduce acreage open to locatable mineral development (Table J.7, pg. J44-J45)	The BLM considered additional protections for all three caribou herds under Alternative B. Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	16	Wildlife	208.0700.00	We are also concerned about what we believe to be potentially an over-generalized consideration of caribou response to road developments in the case of the Hodzana Herd: "The Dalton Utility and Transportation corridor bisect the range of the HHH [Hodzana Herd]. The herd annually crosses the road, the TAPS, and other linear features, and do not appear to be restricted by their movements. It appears standard stipulations regarding linear infrastructure sufficiently mitigate impacts on caribou movements" (USBLM 2020 CYRMP Appendix I, pg. I-7); and, "Concerns were raised during scoping regarding the impacts of linear ROWs on caribou movement. While the Dalton Highway and Dalton Utility Corridor bisect the range of the HHH, these caribou cross the road, Trans-Alaska Pipeline System, and other linear features yearly and do not appear to be restricted in their movements. It appears standard stipulations regarding linear infrastructure sufficiently mitigate impacts on caribou movement" (USBLM CYRMP 2020 Volume 2, Appendix Q, pg. Q-70). We question that interpretation for two reasons: (1) We wonder if it is based on the same sample size of radio-telemetry observations that Horne et al. (2014) recognized as being insufficient for accurate population estimation; and, (2) This conclusion runs counter to nearly all of the literature on caribou and developments that we are aware of (see below).	Section 3.2.7 has been revised to include additional analysis and citations regarding impacts from development on caribou.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	17	Wildlife	208.0700.00	We offer the following best-available caribou disturbance literature that we believe BLM should consider to evaluate potential impacts of permitted developments in caribou habitat under the different alternatives. There is widespread evidence that human disturbance can disrupt animal movement globally (Doherty et al. 2021). Specific to caribou, numerous studies document altered distribution and movement behavior. For example, studies of the Western Arctic Herd report altered movement behavior, delays and displacement as caribou approach the Red Dog Mine road (Dau 2013, Wilson et al. 2016). The RMP/DEIS states: "ROWs for linear projects are required to provide for unimpeded movements for caribou and other priority species" (USBLM 2021 CYRMP pg 3-81).	Section 3.2.7, Wildlife, has been revised to include more discussion about the impacts of development on caribou.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	18	Wildlife	208.0700.00	It is unclear that physical ROW adjustments alone can adequately protect caribou. There is significant evidence that behavioral response of caribou to activities on the roads is important. Generally, some caribou appear to habituate to the presence of structures in oil fields (Ballard et al. 2000) but not to human presence and vehicular traffic (Nelleman and Cameron 1998). We note that previously constructed roads, with mitigation measures in place, did not achieve unimpeded movement - as evidenced by the studies above, statements in the RMP/DEIS about delays and deflections persisting (USBLM 2021 CYRMP pg 3-83), and the additional study evidence we provide below. Published scientific literature reports a wide range of estimates of human impacts on caribou leading to displacement from disturbance, including: - avoidance of mines up to 4 km (USBLM Ambler DEIS, pg. H-51); - avoidance of mines 11-14 km (Boulanger et al. 2012); - avoidance of mines 6 - 19 km (Boulanger et al. 2021); - avoidance of mines 20-23 km (Plante et al. 2018); - displacement from disturbance 9.6 km (USBLM Ambler DEIS pg. 3-74); - displacement from roads up to 15 km (Plante et al. 2018); - displacement from human settlements up to 18 km (Plante et al. 2018).While there is variability in the reported distances of response by caribou, and recent work suggests responses vary by year and due to other factors such as herd size and environmental conditions (Boulanger et al. 2021), the information above stands in sharp contrast to the RMP/DEIS' claim that "standard stipulations regarding linear infrastructure sufficiently mitigate impacts on caribou movement."	Section 3.2.7 has been revised to include additional analysis and citations regarding impacts from development on caribou.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	19	Wildlife	208.0700.00	Studies of caribou and other ungulates also have failed to find strong evidence of habituation to other forms of development and human activity. Boulanger et al. (2012) examined caribou disturbance responses near a diamond mine in Canada and found variation in avoidance responses over time but no clear evidence of habituation. Another recent Canadian study found avoidance of long-established infrastructure, "suggesting that long-term habituation is unlikely" (Plante et al. 2018, p. 138). A study in Norway found no evidence of habituation by reindeer to ski resorts, trails, and recreational cabins over a 20-year study (Nellemann et al. 2010). Similarly, recent work on the Central Arctic Herd in northern Alaska found continued avoidance of energy infrastructure during calving, post-calving, and mosquito relief seasons (Johnson et al. 2020). This shows a lack of habituation to development over a 40-year period, despite the presence of proposed mitigation measures (Johnson et al. 2020). These varied sources emphasize that there is not clear evidence of caribou habituation to infrastructure and human activity. Their movement behavior may be altered, even at traffic levels below 15 vehicles per hour, leading to caribou avoidance of roads (Curatolo and Murphy 1986, Cronin et al. 1994, USBLM Ambler DEIS 2019, pg.151).	Section 3.2.7, Wildlife, has been revised to include more discussion about the impacts of development on caribou.

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Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	20	Wildlife	208.0700.00	Traditional knowledge from subsistence hunters in northern Alaska has indicated concerns about aircraft influences on caribou for decades (e.g., Georgette and Loon 1988, Jacobson 2008, Halas 2015). We note that Appendix Q (Subsistence) describes aircraft altitude restrictions during the caribou calving season: "Alternative B includes the requirement that aircraft associated with all BLM-authorized land use activities would be required to fly a minimum of 2,000 feet above ground level in caribou calving areas associated with the GMH and the RMH from May 1 through June 30, in Dall sheep habitat from May 1 through August 31, and in 10 different ACECs during various times. This would be done to reduce the potential impacts on caribou and Dall sheep" (USBLM CYRMP 2020, pg. Q-81). We suggest that this altitude minimum become a SOP, that it also applies to the Hodzana Herd, and that it be included in the action alternative selected for the final RMP/FEIS. We appreciate that Appendix I (pg. I-3-I-4) defines an excellent set of actions for "effects minimization and mitigation" for Dall sheep. We believe that some of these similar actions must be implemented for caribou and defined in Appendix I, (pg. I-6 to I-8). They should include clear permitting management prescriptions specific to caribou and be applicable to the Alternative B caribou ACECs and/or the Alternative C1 Core Caribou Ranges. These caribou management prescriptions should also be consistent with, and incorporated into, the Wildlife SOPs in Appendix F (pg. F8-F10). They should be required to apply to all permitted activities in the final alternative selected in RMP/FEIS and approved in a Record of Decision (ROD).	While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives related to caribou management. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	21	Wildlife	208.0700.00	We believe that additional consideration and analysis should be given to the potential facilitating role mining-development related access roads could play for predation on caribou. Linear features act like highways for wolves, allowing them to travel through woodlands faster and farther, as well as altering their habitat selection patterns, increasing their contact with and predation of caribou (e.g., James and Suart-Smith 2000, Dickie et al. 2017, DeMars and Boutin 2018). Wolf predation, facilitated by linear corridors, is thought to be one factor driving recent declines in woodland caribou in Canada (McLoughlin et al. 2003; Hervieux et al. 2013; Hebblewhite 2017). With the small size and relatively isolated nature of the Ray Mountain, Galena Mountain, and Hodzana Hills herds, potential for increased predation is concerning. Additional information regarding caribou and road impacts can be found in TWS (2019, Comment letter from Alaska Chapter to BLM regarding Ambler Road DEIS).	Section 3.2.7, Wildlife, has been revised to include more discussion about the impacts of development on caribou.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	22	Wildlife	208.0700.00	There is insufficient discussion of potential impacts to the North Slope caribou herds in the RMP/DEIS. For example, the Teshekpuk Caribou Herd is only referenced three times in Volume 1 (pg 3-81, 3-89, and 3-90). The RMP/DEIS claims that the decision area is only occasionally used by caribou from the Teshekpuk Herd (pg 3-81), however Person et al. (2007) depict the area as containing one of the wintering areas for the herd, used by 21% of the herd. While not all of this wintering area overlaps with the RMP/DEIS decision area, it nonetheless is important to provide a robust accounting of potential impacts and their consequences for the herd. To better visualize potential impacts for the Teshekpuk Caribou Herd, a seasonal distribution map should be added to Appendix A, similar to Map 3.12 for the Central Arctic Herd. The outline of the project area should be added to both this and Map 3.12 to facilitate clearer interpretation or range overlap and potential impacts.	The BLM has included a range of alternatives related to caribou management that would meet the wildlife goals. These include management for potentially affected herds in the planning area.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	23	Wildlife	208.0700.00	Similarly, potential impacts to the Central Arctic Herd are inadequately included in the draft text. For example, while the RMP/DEIS acknowledges that portions of Central Arctic Herd migratory and winter range occur in the decision area (pg 3-81), Map 3.12 in Appendix A indicates that the decision area is also overlapped by the area used by the Central Arctic Herd for calving, oestrid fly relief, and late summer foraging. These uses should also be discussed in Chapter 3 and include description and quantification of potential implications for the Central Arctic Herd. Furthermore, the cumulative impacts section acknowledges that potential development such as the Ambler mining access road, potential pipelines, or other projects may have detrimental impacts on the Western Arctic Herd and Teshekpuk Caribou Herd but fails to mention similar impacts for the Central Arctic Herd (pg 3-90). Given the distributions shown in Map 3.12 it is reasonable to conclude that there may be similar impacts for the Central Arctic Herd, so that herd should also be included in the cumulative impacts description.	The BLM has included a range of alternatives related to caribou management that would meet the wildlife goals. These include management for potentially affected herds in the planning area.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	24	Wildlife	208.0700.00	We urge the BLM to consider the above literature and additional information we provided to re-evaluate how habitat of the three small caribou herds near the Dalton highway, as well as the larger North Slope herds, can be adequately protected into the future. Most the land used by the three small herds is managed by BLM and the final RMP/FEIS should provide clearer strategies as to how caribou habitat will be managed. We recommend and would prefer that the final alternative selected include the ACECs of Alternative B with boundaries adjusted to encompass a majority of the documented habitat used by the three small caribou herds, Ray Mountains (RMH), Hodzana (HHH), and Galena Mountain (GMH). If a "blended" alternative ends up being selected, the final RMP/FEIS must include designated Core Caribou Ranges for all three small herds. Finally, clear management prescriptions specific to caribou must be included in Appendices F and I and be required to consistently apply to all permitted activities in all action alternatives in the final RMP/FEIS and ROD.	The BLM considered additional protections for all three caribou herds under Alternative B. Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	25	Wildlife	208.0700.00	The opening paragraph for Dall sheep in the Wildlife section of the DEIS includes the statements: "Dall sheep habitat is primarily in PLO 5150, which becomes State land with valid State of Alaska selections following the BLM's revocation of this PLO; therefore, a full or partial revocation of PLO 5150 could indirectly impact Dall sheep, depending on how the State handles selections; it is unknown how the State would manage the lands…. a full or partial revocation of PLO 5150 could impact Dall sheep if other protective mitigation measures are not enacted. SOPs for Dall sheep would reduce or minimize impacts of some activities on Dall sheep. These include recommending low-profile road and facility designs, ROW avoidance and traffic controls, and clustering facilities as closely together as possible." (USBLM 2020 CYRMP, pg. 3-83). These statements portray an uncertain future for Dall sheep habitat on BLM-managed lands in the Dalton Highway corridor because it implies a high likelihood that the land ownership pattern will change, habitat may become fragmented, and managers will mainly have to rely on two SOPs (11 and 12, in Vol 2, Appendix F.2, Page F-9). While these SOPs put some constraints on construction and mineral development methods, they are likely not adequate to protect the Dall sheep habitat and population in the long term. We recommend that BLM incorporate some of the sheep management prescriptions in Appendix I, (pg. I-3 to I-6) into additional SOPs in Appendix F, and that they become required actions consistently applied to permitting across all activities in the final alternative selected in the RMP/FEIS and approved in the ROD.	The BLM has included SOPs deemed necessary for protection of resources on BLM-administered lands. If PLO 5150 were to be fully or partially revoked, the BLM would not have jurisdiction of management of those lands and thus could not influence Dall sheep habitat in that area.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	26	Wildlife	208.0700.00	We believe that the DEIS selection of preferred Alternative C2 does not sufficiently consider the impacts of increased road and mining-related development on Dall sheep. Alternatives A and B recommend the original set, and, respectively, one additional ACEC for sheep. Alternative C1 designates a Dall Sheep Movement Corridor (DSMC), a Dall Sheep Study Area (DSSA) and small Dall Sheep Habitat Areas (DCHAs), which in our judgement are of insufficient size to protect sheep into the future. Alternative C2 offers even less to protect sheep, and we caution BLM against the negative ramifications of selecting that choice. We believe that more protective measures are needed because Dall sheep are vulnerable to road-related disturbance. A study at Denali Park found: "…Dall's sheep in Denali responded negatively to increased traffic volumes by increasing their movement rates when approaching the road and shifting away from the road at higher traffic levels. While many studies have investigated the potential for vehicles to affect sheep behavior and distribution, most have examined individual or group responses to the approach of individual vehicles, or general distribution of sheep relative to road corridors, rather than volume or patterns of traffic…… Our results reflected a threshold distance for response to disturbance by showing that sheep within 300 meters (984 ft) of the road shifted farther away at higher traffic volumes and that small increases in the number of vehicles on the road could have impacts on Dall's sheep movements. Movement of sheep away from the road corridor at higher traffic volumes may decrease the amount of habitat available for foraging. This may be most relevant to sheep during the spring season, when they most frequently cross the road and "green-up" has not yet occurred at higher elevations" (Phillips et al. 2010).	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM considers reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives, including those related to Dall sheep as shown in Table 2-4 in the RMP/EIS. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS. Additionally, the resulting action alternatives offer a range of possible management approaches for responding to planning issues and concerns identified through public scoping. While the goals and objectives for wildlife are the same across alternatives, each alternative contains a discrete set of management actions and constitutes a separate RMP with the potential for different long-range outcomes and conditions related to Dall sheep.

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Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	28	Wildlife	208.0700.00	Craig and Leonard (2009) studied Dall sheep distribution within five existing ACECs to evaluate the effectiveness of the boundaries, describe habitat use, and provide minimum counts between 2000 and 2006. Curiously, neither the RMP/DEIS nor the AMS cite this information. This information should be incorporated into the final RMP/FEIS. The AMS provided an estimate of approximately 1,400 sheep in 422 square miles of sheep habitat in the Dalton Highway corridor in 2012 and 2013. We believe there should be a solid plan in the final RMP/FEIS to monitor sheep numbers and distribution, in cooperation with ADFG and/or NPS, especially given the lack of protective measures in the preferred Alternative C2, and the lack of sheep-specific ACECs in Alternative C1. Monitoring of terrestrial wildlife is mentioned in the AMS, (USBLM 2016 pg. 235), and in Table 2-4 (pg. 3-22) in a general way. We urge BLM to make a formal commitment for sheep monitoring in a finalized Table 2-4 in the RMP/FEIS. Such information would be essential in order to evaluate whether BLM-permitted development activities affect sheep habitat, abundance or distribution.	The existing information in the RMP/EIS is adequate to characterize Dall sheep within the planning area. While monitoring is not a planning-level decision, the BLM will develop monitoring plans as appropriate and needed at the implementation stage.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	30	Wildlife	208.0700.00	The Alaska Chapter applauds BLM for the list of "effects minimization and mitigation" measures for permitted activities in the sheep management areas of Alternative C1 (Dall Sheep Habitat Area, Dall Sheep Movement Corridor, and Dall Sheep Study Area, Appendix I, pg. I-3 to I-4). We appreciate that Appendix I articulates specific management parameters of these special areas, however, we believe some of those parameters may be too lenient (e.g. disturbance limit, noise restrictions, and ROW permissiveness) based on information from the Phillips et al. (2010) study cited above. We recommend tightening those parameters, including them in the SOPs of Appendix F, and making them consistent and required to be applied across all activities in the action alternative selected in the final RMP/FEIS and ROD.	The BLM has included SOPs deemed necessary for protection of resources on BLM-administered lands. Minimization and mitigation measures could additionally be applied and would be sufficient for protecting Dall sheep habitat on BLM-administered lands.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	31	Wildlife	208.0700.00	Unlike caribou and sheep, moose are more tolerant of human activities, so we would not be as concerned with more intensive levels of multiple uses in moose habitat, as with the former species. Moose are one of the most sought-after wildlife species among hunters accessing BLM lands. We caution that State and Federal moose hunting regulations in the Unit 24A portion of the ADFG-designated Dalton Highway Corridor Management Area, and nearby Unit 24B, are some of the most complex in the State of Alaska. Two restrictions are in place to prevent overharvest -- no use of firearms or off-road vehicles within 5-miles of the highway/pipeline for all non-rural hunters. Moose hunting is further complicated by long-standing subsistence practices and dependence by residents from several villages (Wiseman, Allakaket, Bettles and Evansville) who have federal subsistence priority because of their rural residency. Decisions proposed in the RMP/DEIS, particularly with land tenure, ROW, and travel management could further complicate an already complex regulatory environment that is challenging for both wildlife managers and for hunters. Any change that eases access, or otherwise changes opportunity for rural, or non-local hunters, will have to be weighed against chances of overharvesting the population.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM considers reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. Since the state of Alaska manages fish and wildlife populations in the state, the RMP/EIS alternatives address the potential for impacts on moose related to areas outside the state's jurisdiction, such as land tenure and travel management, as directed by the BLM Land Use Planning Handbook. Components of several alternatives may be chosen, including management that would have fewer restrictions within moose habitat; these would be described in the Record of Decision for the RMP/EIS.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	33	Wildlife	208.0700.00	A comprehensive radio-telemetry study found considerable movement of moose between the BLM-managed Dalton Highway corridor and the Gates of the Arctic National Park and Preserve to the west of the corridor (Joly et al. 2015). The same study also documented movements, less frequent, between Kanuti NWR and BLM-managed lands to the south (Ray Mountains) and east (Dalton Highway corridor). We found that BLM did not consider this aspect in the RMP decision making. The upper Koyukuk River watershed area should be considered the habitat of a regional moose population that is not confined to any single agency's managed lands, thereby requiring all agencies to work closely together on issues affecting moose habitat and moose harvest. Management of access, harvest, and habitat will require close cooperation of neighboring land managers and the ADFG. We did not find an explicit commitment for such cooperative work in the RMP/DEIS (although it does appear in the AMS, USBLM 2016 pg. 235). We encourage the BLM to make a formal commitment for moose monitoring in a finalized Table 2-4 in the RMP/FEIS. The BLM should also work closely with ADFG and the neighboring federal agencies (NPS and FWS) on future monitoring and study efforts like that which made the Joly et al. (2015) study possible.	The BLM Wildlife Program Manual (MS 6500) directs the BLM to "ensure a level of communications and coordination necessary to provide effective cooperation between BLM, private groups, and local, State, and Federal agencies concerned with management of the wildlife, fish, and special status species on the public lands." Moose management and research activities are undertaken in accordance with this directive, and including the recommended language in the RMP is not necessary.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	34	Wildlife	208.0700.00	We appreciate that the RMP/DEIS considered the importance of federally-protected threatened and endangered species, under the Endangered Species Act, the Bald and Golden Eagle Protection Act, State of Alaska Species of Greatest Conservation Need, and BLM "Special Status Species"(SSS pg. 3-77). We also appreciate the detailed consideration of special status species undertaken by BLM in the Analysis of Management Situation (USBLM 2016 AMS, Table 2.8, pg. 65-67), and in the BLM Alaska Special Status Species List (USBLM 2019b). We found some discrepancies between the 2016 AMS analysis of sensitive species and the 2019 Alaska Special Status Species list cited in the RMP/DEIS. We recommend for the final RMP/FEIS that BLM correct those discrepancies and also consult the Partners in Flight concern list, Audubon Alaska Red List 2017, and Audubon Alaska Yellow List 2017 (Audubon 2017) where additional avian species of concern are listed due to statewide or continental population declines.	The AMS has not been updated, but the RMP/EIS has been checked to ensure that the special status species list is up to date. Management actions for general wildlife, general species of special concern, water, fish, and riparian vegetation, and vegetation as shown in Tables 2-4, 2-5, 2-2, and 2-14, respectively, would be sufficient to protect the additional avian species of concern mentioned by the commenter. Impacts described for wildlife in Section 3.2.7 would include impacts on these species, even if they are not specifically mentioned.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	36	Wildlife	208.0700.00	We would like to call attention to BLM that the bird species listed below, that occur in the planning area, have suffered significant population declines. These species are variably associated with boreal wetland habitats, mesic spruce forests, upland shrublands, and alpine tundra, all of which would be affected by permitted mineral development and ROW access decisions in the action alternatives. In addition, impacts of these development activities may be exacerbated by habitat changes resulting from climate change. Shorebird and landbird species with significant population declines within interior Alaska (all species listed) and across North America (*) include the following (Alaska Shorebird Group 2019, Handel and Sauer 2017, Sauer et al. 2017): - Surfbird (alpine tundra)* - Wandering tattler (alpine tundra) - Lesser Yellowlegs (boreal wetlands)* - Red-necked Phalarope (boreal wetlands)* - Olive-sided Flycatcher (boreal wetlands)* - Western Wood-Pewee (boreal wetlands)* - Violet-green Swallow (boreal wetlands)* - Bank Swallow (riparian sand banks and bluffs)* - Cliff Swallow (riparian bluffs and cliff faces) - Ruby-crowned Kinglet (mesic spruce forests) - Orange-crowned Warbler (shrublands) - Blackpoll Warbler (boreal wetlands)* - Wilson's Warbler (boreal wetlands, shrublands) - Savannah Sparrow (boreal wetlands, shrublands, alpine meadows)* - White-crowned Sparrow (shrublands) - Rusty Blackbird (boreal wetlands)*	Management actions for general wildlife, general species of special concern, water, fish, and riparian vegetation, and vegetation as shown in Tables 2-4, 2-5, 2-2, and 2-14, respectively, would be sufficient to protect the additional avian species of concern mentioned by the commenter. Impacts described for wildlife in Section 3.2.7 would include impacts on these species, even if they are not specifically mentioned.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	37	Wildlife	208.0700.00	Out of the 16 species listed above, only three species (Olive-sided Flycatcher, Blackpoll Warbler, and Rusty Blackbird) were listed as BLM Sensitive or Watchlist Species in the Special Status Species (SSS) analysis for birds in the Analysis of Management Situation (USBLM 2016 AMS, Table 2.8, pg. 65-67, and Table 2.11, pg. 76). One additional species (Bank Swallow) from the above 16 was also listed in the 2019 BLM Special Status Species List (USBLM 2019b). The Lesser Yellowlegs, Olive-sided Flycatcher, Rusty Blackbird, and Blackpoll Warbler are of particular conservation concern because of marked continental population declines, their breeding distribution restricted to boreal wetlands, and their relatively low population sizes (Handel and Sauer 2017). The Olive-sided Flycatcher is listed as a Threatened Species in Canada and as a Near-threatened Species by the IUCN. The Bank Swallow is also listed as a Threatened Species, and the Red-necked Phalarope is listed as a Species of Concern in Canada. The above-listed 16 species would likely be negatively affected by permitted activities that reduce boreal shrublands, riparian floodplains and wetlands, or alpine tundra transition habitats, because of the greater amount of development area is allowed under Alternatives C1, C2, and D compared to A or B.	Management actions for general wildlife, general species of special concern, water, fish, and riparian vegetation, and vegetation as shown in Tables 2-4, 2-5, 2-2, and 2-14, respectively, would be sufficient to protect the additional avian species of concern mentioned by the commenter. Impacts described for wildlife in Section 3.2.7 would include impacts on these species, even if they are not specifically mentioned.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	38	Wildlife	208.0700.00	We note that the AMS recommended special treatment of habitats where sensitive avian species occur: "Wetland and riparian areas as well as actual waterbodies (e.g. lakes, ponds, rivers/streams and associated shorelines) are likely to provide important habitat for one or more designated sensitive species (e.g. rusty blackbirds, yellow-billed loon, olive-sided flycatcher, blackpoll warbler, trumpeter swan) and should be given special consideration in planning (USBLM AMS 2016, pg. 80). We could not find where those recommendations are stated or referenced in the RMP/DEIS.	Management for wetland and riparian areas is presented in Table 2-2 of the Draft RMP/EIS. **Appendix F** describes SOPs and fluid mineral stipulations intended to protect wetland and riparian areas.

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Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	39	Wildlife	208.0700.00	The Alaska Chapter recommends that BLM publish a revised sensitive bird species list in the Wildlife section of Chapter 3 in the final RMP/FEIS (to include the 16 species we list above, and also consider adding the Audubon watch list species). This is to provide needed recognition for managers to consider how their permitting decisions may affect the habitats of these important landbird and shorebird species. Such information should not be relegated to a separate document. Furthermore, Chapter 3, Affected Environment, Wildlife (pg. 3-77 to 3-90) and Appendix P (pg. P1-P6), Wildlife, did not address how BLM-permitted developments allowed by the four action alternatives may affect habitats that support some of these species of national and statewide concern. We therefore offer some suggestions on possible impacts, and ways to reduce those impacts, which should be included in the final RMP/FEIS: Some of the most important habitats for boreal landbirds and shorebirds include the riparian shrublands and forests that line rivers and creeks in the planning area. Issues concerning shrub-inhabiting birds include placer mining and construction of transportation and utility corridors (Andres et al. 1999). Riparian shrub and forest habitats in Central Alaska support a diverse assemblage of landbirds and shorebirds (Spindler and Kessel 1980, Kessel 1998, Tauzer 2013). According to the Landbird Conservation Plan for Alaska Biogeographic Regions: "Loss of shrub and other riparian habitats to placer mining or transportation and utility corridor developments, which often follow drainages or rely on gravel mining, is a concern for landbirds. Removal of shrubs along riparian corridors would negatively affect birds such as the Gray-cheeked Thrush, Blackpoll Warbler, and other shrub dependent species. Riparian forests are important to the Olive-sided Flycatcher. Remediation of disturbed riparian may diminish the long-terms effects of vegetation removal" Andres et al. (1999)	Section 3.2.7, Wildlife, has been revised to include additional discussion of impacts on sensitive avian habitats, including riparian shrub and forest habitats.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	40	Wildlife	208.0700.00	We urge BLM to increase the protection of riparian shrubs and forest in whatever is chosen for the final preferred alternative. We believe that Alternatives C1, C2, and D in their current form do not provide adequate protection for riparian habitats. Large-stature spruce forests along riparian areas and on south-facing slopes are also important, according to Andres et al. (1999): "Harvest of large white spruce trees from coniferous and mixed deciduous/coniferous forests would reduce populations of Townsend's Warblers, White-winged Crossbills, Boreal Chickadee and other species dependent upon mature spruce forest. Selective harvest of aspen and birch would negatively affect the Hammond's Flycatcher and other species that use mature deciduous forests. Logging of any forest type would provide a short-term benefit to birds preferring openings, grasslands, forbs, shrub and sapling seral stages."Examples of the seral stage-preferring species would be: Gray-cheeked Thrush, Orange-crowned Warbler, White-crowned Sparrow, Tree Sparrow, Fox Sparrow, (Spindler and Kessel 1980, Kessel 1988, Tauzer 2013).	Section 3.2.7, Wildlife, has been revised to include additional discussion of impacts on sensitive avian habitats, including riparian shrub and forest habitats.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	41	Wildlife	208.0700.00	We urge BLM to reconsider the vast acreages that will be opened to locatable mineral entry in all of the RMP/DEIS action alternatives because of potential impacts to habitats of bird species of concern, particularly in wetlands and the riparian zone. Furthermore, managers must be guided by the Final EIS/RMP to minimize impacts to the habitats of these species of concern when making permitting decisions, especially relative to locatable mineral development and ROW access to these sites. We recommend BLM add to Appendix F some prescriptive SOPs targeting avian habitats, particularly for wetlands, riparian shrubs and forests, and large stature spruce in uplands, and require them to be consistent and applicable across all activities in the action alternative selected for the final RMP/FEIS. These measures should also be included in FLPMA-required permit-specific environmental analyses.	Varying acres open to locatable mineral entry are considered within the range of alternatives and management would vary by alternative (Draft RMP/EIS Chapter 2). Components of several alternatives may be chosen, including aspects of an alternative that may have more or less acres open; these would be described in the Record of Decision for the RMP/EIS. Section 3.2.7, Wildlife, has been revised to include additional discussion of impacts on sensitive avian habitats, including riparian shrub and forest habitats.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	42	Wildlife	208.0700.00	The Alaska Chapter appreciates the Action Alternative Objective (land use authorizations Table 2-19, pg. 2-49) because it recognizes the high value to wildlife habitat connectivity, and the importance of avoiding habitat fragmentation: "Allow the Utility Corridor to continue to support existing and future anticipated transportation and utility projects, while maintaining visual, recreational, and ecological values, including connectivity between conservation units adjacent to the corridor, to the extent practicable" (emphasis added). We are concerned this objective cannot be met with the action alternatives (B, C1, C2, D) that have significant revocations of land withdrawals, PLO 5150 and D1. We therefore recommend an Alternative A-level (no action) that includes no such revocations in the final alternative in the RMP/FEIS and ROD.	Components of several alternatives may be chosen, including the management from Alternative A requested by the commenter; these would be described in the Record of Decision for the RMP/EIS.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	43	Wildlife	208.0700.00	We applaud the BLM for including Standard Operating Procedure SOP LANDSCAPE-1 (Appendix F) to achieve this objective. We also appreciate that the BLM intends to consider habitat connectivity as part of their adaptive management strategy as described in Appendix G (pg. G8-G9 and Map G-3). We are pleased that "structural connectivity corridors [are] proposed for all action alternatives" (B, C1, C2, D; Appendix G, page G8), however, we are concerned with another potentially conflicting statement in Chapter 3 implying applicability only to Alternative B: "New SOPs would be applied to maintain landscape connectivity corridors" (pg. 3-84). We request that BLM clarify in Chapter 3 that their consideration of landscape connectivity corridors will apply across all management activities and to the final alternative that is selected in the RMP/FEIS, and carried forward into the ROD.	The action alternatives offer a range of possible management approaches for responding to planning issues and concerns related to landscape connectivity. While the goals are often the same across alternatives, each alternative contains a discrete set of objectives and management actions and constitutes a separate RMP with the potential for different long-range outcomes and conditions for landscape connectivity corridors. Impacts from connectivity corridor management under each alternative are disclosed in Chapter 3.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	44	Wildlife	208.0700.00	We note that the basis of these corridors are enduring geographic features (Magness et al. 2018). Since that work was published subsequent connectivity research in the same geographic area has incorporated climate change effects to habitat connectivity (Gabrielson 2019). We urge the BLM to consider this new climate change effects research as applied to connectivity corridors in a revised Appendix G for the final RMP/FEIS.	All of the action alternatives incorporate climate change adaptability. At the implementation level, the BLM will incorporation additional best available science regarding climate adaptation for site-specific decisions.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	45	Wildlife	208.0700.00	We would like to emphasize that challenges to wildlife species anticipated with climate change would be exacerbated if habitat connectivity is lost. We are pleased that the RMP/DEIS states "Maintaining connectivity corridors, resilience, and adaptability are key to managing for such changes" (Page G-2). However, many of the realty decisions proposed in the DEIS, in combination with the reasonably foreseeable development scenario (particularly mining and associated ROWs) would negatively affect habitat connectivity, ecological benchmarks, large mammal migrations, overall health of the watersheds, and resilience of ecosystems. We therefore question how the connectivity objective above can reasonably be accomplished when the realty decisions proposed in all action alternatives could involve the wholesale transfer of lands in the Dalton Highway corridor out of the federal domain (revoke PLO 5150), and/or, in a similar large-scale manner, revoke D1 withdrawals to increase the acreage open to locatable mineral development, and provide the necessary ROWs to access such claims. We find alarming the massive acreage proposed for revocation of D1 withdrawals, 5.253 million acres, in all action alternatives. Only 1.4 million acres would be recommended for replacement FLPMA withdrawals in the most protective Alternative B, and zero in the preferred Alternative C2 (Table 3-20, pg. 3-138). We recommend some significant changes to address this shortcoming.	Components of several alternatives may be chosen, including no PLO revocation under Alternative A; these would be described in the Record of Decision for the RMP/EIS.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	46	Wildlife	208.0700.00	According to the connectivity analyses in Appendix G (pages G-8-9), there are several key areas between Federal Conservation System Units (CSUs) where we recommend BLM do everything possible to avoid habitat fragmentation. Simple right of way (ROW) avoidance may not be sufficient to avoid significant impacts from mineral, utility, and transportation development in some of these key areas over the life of the plan. Referring to Maps G-3, and Volume 2, Appendix A, Maps 2.29, 2.30. 2.31, and 2.32, the following key areas allow crucial habitat connections between Conservation System Units (listed in order from north to south and east to west, including the relevant Public Land Order withdrawals, PLOs): 1 Arctic NWR with Gates of the Arctic NPP; PLO 5150 2 Kanuti NWR with Yukon Flats NWR; PLOs 5150, 5173, 5179, 5180, 5184 3 Kanuti with Koyukuk NWR; PLOs 5179, 5184 4 Denali NPP with Nowitna NWR; PLOs 5173, 5179, 5184 5 Nowitna with Koyukuk NWR; PLOs 5180, 5179 6 Koyukuk with Innoko NWR; PLOs 5179, 5184 7 Koyukuk with Selawik NWR; PLOs 5173, 5174	Connectivity corridors are considered within the range of alternatives and management would vary by alternative (RMP/EIS Chapter 2 and **Appendix G**). Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of the connectivity corridors; these would be described in the Record of Decision for the RMP/EIS.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	51	Wildlife	208.0700.00	The Alaska Chapter is also concerned about implications for wildlife habitat connectivity or fragmentation caused by the RMP/DEIS proposal to revoke 5.253 million acres of D1 withdrawals (Table 2-1, pg 2-10). Many of these withdrawals presently do not allow locatable mineral entry (see listed PLOs in connectivity areas 1-7, above). The BLM proposes ZERO acres of FLPMA replacement withdrawals in preferred Alternative C2. Even protective Alternative B proposes only 1.4 million acres of FLPMA replacement withdrawals (Table 3-20, pg. 3-138). We understand that even the potential FLPMA replacement withdrawals are not certain because the final RMP does not complete this action, only the Secretary of the Interior and Congress can. Until approval of replacement FLPMA withdrawals can be assured, the Alaska Chapter recommends that BLM use existing formal designations to call out the need to maintain wildlife habitats and avoid fragmentation in connectivity areas 1-7, Possible strategies would be to re-analyze the ACECs, approved and proposed, and both sets of Ecological Benchmarks proposed in Alternative B and C1, to ensure they include the 7 key connectivity areas we list above. Another possibility would be to create another new formal designation such as "Connectivity Corridors" applied to all of the areas depicted in Figure G9 (similar to what BLM proposes for Dall sheep habitat in Alternative C1). The Alaska Chapter opposes the large-scale D1 withdrawal revocation until the interim protection they provide can be replaced by other means, therefore Alternative A is better in this regard.	Components of several alternatives may be chosen, including no PLO revocation under Alternative A; these would be described in the Record of Decision for the RMP/EIS.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	60	Wildlife	208.0700.00	The Backcountry Conservation Area (BCA) proposed for the outer Dalton Highway corridor (Table 2-7, pg. 2-31, and in Appendix A, Map 2.4) has important wildlife habitat aspects that the Alaska Chapter supports: "This BCA would be managed to protect the intact and undeveloped character and to manage habitats to support migration/movement corridors for recreationally important species of fish and wildlife, big game winter range, summer range, parturition areas, migration corridors, associated stopover areas, and migratory bird habitats" (USBLM 2020 CYRMP pg. Q78-Q79). We believe this designation proposed for Alternative B sets some valuable wildlife habitat priorities for the outer Dalton Highway Corridor that may complement the need for protection of connectivity corridors, riparian areas, and wetlands. We support the management actions outlined in Table 2-7 (USBLM 2020 CYRMP pg. 2-31) to maintain wildlife habitat connectivity while allowing some levels of "lighter" multiple uses. A specific wildlife goal and objective is needed in Table 2-7 that supports wildlife habitat quality, connectivity corridors, and prevents habitat fragmentation, between Kanuti and Yukon Flats NWRs and between Arctic NWR and Gates of the Arctic NP.	Backcountry Conservation Areas are considered within the range of alternatives and management would vary by alternative (Draft RMP/EIS Chapter 2 and **Appendix K**). Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of certain areas; these would be described in the Record of Decision for the RMP/EIS. The goal and objective for Backcountry Conservation Areas is intentionally broad as appropriate for the planning level decision and encompasses the suggestion made by the commenter.
Raskin	David	Friends of Alaska National Wildlife Refuges	None	88	2	Wildlife	208.0700.00	We urge addition of another "Wildlife" goal/objective to emphasize the importance of wildlife habitat quality and connectivity corridors, notably between Arctic NWR and Gates of the Arctic NP and between Kanuti and Yukon Flats Refuges.	The goals and objectives for Wildlife are intentionally broad as appropriate for the planning level decision and encompasses the suggestion made by the commenter.
Kehoe	Kevin	Alaska Wild Sheep Foundation	None	96	4	Wildlife	208.0700.00	Given recent management actions in the adjacent Gates of the Arctic National Park and Preserve as well as the Arctic National Wildlife Refuge to restrict the use of domestic sheep, goats, and camelids due to the health risks they can pose to wild Caprinae, we would like to see BLM more prominently recognize these risks, and subsequently adopt some plan-specific risk mitigation language pertaining to such in the final version of this plan.	Impacts on Dall sheep have been adequately acknowledged and discussed in Section 3.2.7 of the RMP/EIS. In addition, SOPs and stipulations in **Appendix F**, including SOPs in Section F.2.5 and stipulations in Section F.3.2, would prevent the likelihood of disease transmission to wild sheep.
Kehoe	Kevin	Alaska Wild Sheep Foundation	None	96	5	Wildlife	208.0700.00	One goal noted under Table 2-4 Wildlife is "Prevent disease transmission between domestic animals and wildlife", and then on page 3-145 there's vague wording pertaining to all Action Alternatives "Limitations on domestic sheep and pack goats in Dall sheep habitats would enable an effective separation to avoid disease risk. The use of camelids as pack animals would still be considered in these areas on a case-by-case basis." Beyond these two notations, there's no further mention of disease risk prevention. If domestics were to be utilized from the Dalton Highway Corridor, it could put the entire Brooks Range Dall's Sheep population in jeopardy. Currently, it is well accepted that domestic sheep and goats can and do carry respiratory pathogens considered highly detrimental to wild sheep. These domestic animals often asymptomatically carry these pathogens, and as of yet, there is no mandated testing to determine which animals carry dangerous pathogens and which do not. Until regular testing becomes a mainstay in Alaska, land management agencies must stay vigilant and work to mitigate this risk (see the Movi strain typing summary available at https://www.adfg.alaska.gov/static/home/news/hottopics/pdfs/movi_interpreting_mlst_data_10_01_2020.pdf). For the most comprehensive review of the risk of bringing camelids into wild sheep habitat, see the 2017 Risk Assessment on the use of South American Camelids for Back Country Trekking in British Columbia, submitted by the Centre for Coastal Health, BC (https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/wildlife-wildlife-habitat/wildlife-health/wildlife-health-documents/risk_assessment_use_of_camelids_for_backcountry_trekking_bc.pdf).	The EIS has been revised to remove reference to camelids and instead addresses "pack animals." The language now states: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat. To minimize the potential for disease transmission to wildlife, applications for the use of pack animals would be reviewed and permitted on a project-specific basis.
Kehoe	Kevin	Alaska Wild Sheep Foundation	None	96	6	Wildlife	208.0700.00	While we are not opposed to denoting acreage within the Galena Mountain and Ray Mountain areas as Core Caribou Habitat Areas, the restrictions are not completely necessary (as shown in Table 2-4 Wildlife and J.6). These are isolated caribou herds with small home ranges, and as such, some protections may be warranted (moreso in the Ray Mountain area as it's road accessible). While we support limiting mineral material disposal and ROWS within these areas, the aircraft and OHV restrictions are not supported by existing scientific research, similar to Dall's sheep. Caribou in general are quite used to small aircraft flying overhead and OHV traffic even during calving. Ample evidence for this exists in both the Nelchina and Fortymile caribou ranges, each with a significant number of OHV trails and significant summer traffic for mining and general recreation. Given existing research and management of caribou statewide, it is unnecessary to require aircraft to maintain an altitude of at least 2,000 feet above ground level from May 1 to June 30 (for caribou or Dall's sheep), or to subject landings to "discretionary" timing limitations. It is also unnecessary to completely prohibit OHV traffic in the caribou habitat areas during this time, especially since the habitat areas cover the entire home range of these caribou herds, and are not just limited to defined calving areas. Offering general recommended guidance for flights as well as OHV usage in caribou range would be more than sufficient.	The BLM has included a range of alternatives related to caribou management that would meet the wildlife goals. These include management for potentially affected herds in the planning area. Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Schwanke	Becky	No organization name	None	97	1	Wildlife	208.0700.00	It is unfortunate the Preferred Alternative recommends keeping unnecessary protections on the Galena and Ray Mountains caribou herds, but doesn't even mention Hodzana Hills caribou. This is an oversight. Regardless, these small "herds" are most likely remnant barren ground caribou groups left over from large migrations through the area by larger caribou herds in years past. This is common throughout the interior of Alaska, and it should be noted these caribou have no specific biological, genetic or subsistence value above and beyond that of other Alaskan barren ground caribou herds. There is no reason whatsoever for BLM to maintain overly restrictive protections from aircraft and OHVs throughout the homeranges of these small caribou groups. These are incredibly remote areas, with virtually no access either from the air or ground during the proposed restriction months of May/June. I highly recommend dropping these restrictions from these areas, even if it means stripping language altogether about caribou core habitats. If funding is tied to these designations, that is highly unfortunate. BLM must find a way to continue their basic biological work without unnecessarily restricting the movements of the general public in and around remote inaccessible areas like this.	The BLM considered additional protections for all three caribou herds under Alternative B. Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.

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Schwanke	Becky	No organization name	None	97	2	Wildlife	208.0700.00	I ask that you consider more prominently noting the importance of reducing the risk of disease transmission between domestic animals and wildlife. In particular, the potential risk for introducing highly deleterious pathogens to our wild sheep and caribou should be highlighted and accommodated for in this plan. I am not against backcountry use of pack animals such as domestic goats or even camelids, but I do believe they need to have valid health certificates that show they have not been exposed to, and are not currently carrying deleterious pathogens such as those listed on the State of Alaska's Reportable Disease List under 18 AAC Chapter 36 Animal Health Regulations. If additional pathogens of concern come to light within the greater conservation community, such as Mycoplasma ovipneumoniae, BLM should add these to the health certificates required to traverse the back country. It's a small price to pay to ensure the casual recreational user does not leave lasting negative impacts on the incredibly valuable contiguous wildlife populations within the plan area.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives, including the risk of disease transmission from domestic sheep and pack goats to Dall sheep. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. Table 2-6 includes the following management common to all action alternatives: "Maintain effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat. Use of camelids (including alpacas and llamas) as pack animals would be authorized as appropriate through the normal permitting process." The RMP/EIS provides an adequate discussion of the environmental consequences, including the cumulative impacts, of the presented alternatives. The RMP/EIS provided sufficiently detailed information to aid in determining whether to proceed with the Preferred Alternative or make a reasoned choice among the other alternatives in a manner such that the public could have an understanding of the environmental consequences associated with the alternatives, in accordance with 40 CFR 1502.1. Additional analysis regarding domestic and Dall sheep is provided in Appendix P and Appendix Q of the Draft RMP/EIS.
Williams	Frank	No organization name	None	101	8	Wildlife	208.0700.00	Adopt the newly designated Dall Sheep Habitat Areas, Dall Sheep Movement Corridors, and Dall Sheep Study Area (538,900 acres combined) proposed in Alt. C1. Modify these areas to provide additional safeguards for Dall sheep, such as restrictions on development activities within 0.5 miles of mineral licks.	The BLM has included a range of alternatives related to Dall sheep habitat management that would meet the wildlife goals.
Williams	Frank	No organization name	None	101	9	Wildlife	208.0700.00	Establish core caribou range for the northern caribou herds for the Western Arctic Caribou Herd (WACH), the Central Arctic and the Porcupine Herds.	The BLM has included a range of alternatives related to caribou management that would meet the wildlife goals. These include management for potentially affected herds in the planning area.
Karro	Loren	No organization name	None	119	1	Wildlife	208.0700.00	The DEIS identified moose, caribou, Dall sheep and beaver as priority species. I believe that the gray wolf and the grizzly bear should also be included. Like the other four species, these predators are important for biodiversity reasons, to subsistence trappers, to resident and guided sport hunters, and to recreational wildlife viewers. They are also important as a healthy ecosystem indicator species. All alternatives need to be adjusted to include consideration of these predators, and studies of effects of the alternatives on their denning, food sources and reproductive rates should be included in the EIS.	Priority species are defined in the glossary as "A species in the planning area that is recognized as significant for at least one factor, such as density, diversity, size, public interest, remnant character, or age (BLM Handbook 1601)." The BLM must limit its list of priority species to meet this definition and from a practical standpoint, ability and capacity to manage for these habitats. As such, the BLM has kept the four priority species, though grizzly bear has been added to Section 3.2.7 as another important species. The gray wolf was already included in Section 3.2.7 as an important species.
Karro	Loren	No organization name	None	119	2	Wildlife	208.0700.00	Caribou are a vitally important species for local subsistence as well as sport hunters, and as a food source to top line predators. The DEIS erred in not including the Hodzana Hills Herd calving and feeding grounds as a third Core Caribou Area designated in Alternative C1. Additionally, more importance needs to be put on interruption of caribou migration and disturbance of the historic herd activities that can ensue from road construction and resource extraction development activities. Sufficient research exists showing the problems that result from these activities in caribou calving, feeding and migration areas.	The BLM considered additional protections for three caribou herds under Alternative B, including the Hodzana Hills Herd. Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Karro	Loren	No organization name	None	119	3	Wildlife	208.0700.00	Past research such as that done on the Red Dog Mine road (i.e. research by Jim Dau, 2013) has shown that linear ROWs impact caribou movement, especially during calving. I personally witnessed caribou hesitancy to or avoidance of crossing that road, and caribou herd migration interruption from encountering significant human development activities, during multiple seasons when I lived, worked and hunted in that area for over 8 years. All three identified ranges should specifically include protections from ROW corridors, from motorized vehicle use during the calving periods, and from locatable mineral development. The ACECs identified in Alternative B should be established and adjusted to include all three caribou core areas.	The BLM considered additional protections for all three caribou herds under Alternative B. Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Karro	Loren	No organization name	None	119	4	Wildlife	208.0700.00	Dall sheep are another important species in the region, sought after by subsistence and sport hunters alike. The Dall sheep habitat in the study area lies adjacent to the Dalton Highway, thus sheep management in the area would be directly affected if PLO 5150 was withdrawn and the lands become State of Alaska property. The 2016 BLM Analysis of Management Situation (AMS) recommended changes in the existing ACECs to account for sheep habitat areas. Six of the ACECs in Alternative B are particular to sheep habitat. I recommend that these ACECs from Alternative B be adopted in the final EIS, with the following changes and additions: 1. Extend the Snowden Mountain ACEC to the Matthew Creek headwaters. 2. Expand the Ross Mountain ACEC to encompass all identified sheep habitat in the area. 3. Establish a new ACEC near the village of Wiseman. 4. Establish an ACEC between the Midnight Dome and Smith Dome areas. These two location have existing mineral claims that, if developed, would have severe impacts on the local sheep populations.	The BLM considered a range of alternatives related to ACECs in the RMP/EIS. Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS. Suggestions made by the commenter were considered in developing the Proposed Plan.
Karro	Loren	No organization name	None	119	5	Wildlife	208.0700.00	Additionally, if PLO 5150 is withdrawn, as presently proposed in all action alternatives, stringent SOPs must be developed that require, not recommend, sheep protection measures that are listed in Appendix I. Lastly, an SOP should be implemented that requires careful monitoring of sheep populations, densities and distributions, in coordination with the nearby land managers the NPS, USFWS, and the ADF&G.	The BLM Wildlife Program Manual (MS 6500) directs the BLM to "ensure a level of communications and coordination necessary to provide effective cooperation between BLM, private groups, and local, State, and Federal agencies concerned with management of the wildlife, fish, and special status species on the public lands." Sheep management and research activities are undertaken in accordance with this directive, and including the recommended language in the RMP is not necessary.
Karro	Loren	No organization name	None	119	6	Wildlife	208.0700.00	Maintaining uninterrupted wildlife habitat corridors is primary in maintaining healthy populations of wildlife. They also insure that wildlife species can move when impacted by climate change events. Appendix G states the importance of these corridors in maintaining healthy wildlife population in the face of climate change: "Maintaining connectivity corridors, resilience, and adaptability are key to managing for such changes." Pg. G-2 These corridors can be interrupted by Rights of Ways (roads, trails) development such as mineral extraction enterprises, and degradation/elimination of riparian habitat through pollution, stream sedimentation or foliage removal for development projects. The scoping area surrounds or includes land between 9 different Conservation Units managed in part for wildlife habitat preservation. Identifying and establishing intact corridors between these areas is key to preserving habitat connectivity within the Plan area. These corridors need to be specifically identified and set aside in the final plan, and the associated Public Land Order withdrawals (PLO 5150, 5173, 5173, 5179, 5180, 5184) should not be withdrawn.	Connectivity corridors, as shown in Map G-3, would be managed as described in Chapter 2 of the Draft RMP/EIS, with SOP LANDSCAPE-1 applied (**Appendix F**). Components of several alternatives may be chosen, including no PLO revocation under Alternative A; these would be described in the Record of Decision for the RMP/EIS.
Karro	Loren	No organization name	None	119	7	Wildlife	208.0700.00	Other important wildlife habitat corridors can be maintained and improved through: 1. Adopting Wild and Scenic River (WSR) designations for the 11 rivers detailed in Alternative B. The ¼ mile riparian buffer on each side of designated rivers allows for unimpeded wildlife movement. 2. Adopting the Areas of Critical Habitat Concern (ACECs) that are identified in Alternative B, 3. Preserving the existing D-1 Land Withdrawal acreage as in Alternative A 4. Disallowing Right of Way (ROW) corridor development in connectivity corridors.	The proposed management requested by the commenter is included in the range of alternatives presented in Chapter 2 and through the SOPs in **Appendix F**. Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Karro	Loren	No organization name	None	119	8	Wildlife	208.0700.00	Contrary to the limited number of bird species of concern listed in the DEIS, there are at least 16 species in the study area whose populations are in decline. All of these species and their required habitat should be identified and considered in the final EIS. Important riparian habitat, large stature spruce forests, and wetlands needs to be preserved. Additionally, water resources and wetlands need to be protected from pollutions, sedimentation, and encroachment caused by mineral resource development. This means that any mineral resource development must be carefully regulated and monitored. Past history has shown that mining around rivers and wetlands, even with monitoring for regulatory compliance, often causes degradation of streams and wetlands in the area. One way to mitigate these problems is to limit the area open to mineral development. Unfortunately all of the action alternatives open at least 82% of the study area lands to mineral resource development. The best alternative for bird and wildlife preservation alike is to maintain the current area open to mineral development as proposed in No Action Alternative A, and to maintain all D-1 land withdrawals.	Management actions for general wildlife, general species of special concern, water, fish, and riparian vegetation, and vegetation as shown in Tables 2-4, 2-5, 2-2, and 2-14, respectively, would be sufficient to protect the additional avian species of concern mentioned by the commenter. Impacts described for wildlife in Section 3.2.7 would include impacts on these species, even if they are not specifically mentioned. Section 3.2.7, Wildlife, has been revised to include additional discussion of impacts on sensitive avian habitats, including riparian shrub and forest habitats.
Hasselbach	Linda	National Park Service - Alaska Regional Office	None	123	3	Wildlife	208.0700.00	NPS is also concerned about cross-boundary wildlife impacts. The concern is compounded by the lack of any substantive protective measures in the Preferred Alternative C2. For example, under Preferred Alternative C2, no areas would be designated Areas of Critical Environmental Concern (ACEC), compared with 1.75 million and 4 million acres of ACECs under Alternatives A and B respectively. The direct management actions associated with ACECs often involve wildlife. Under Preferred Alternative C2, existing ACECs (including those that have Dall's sheep and/or other sensitive species as a relevant and important value) would no longer be in place.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM considers reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives, including those related to ACECs. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options for ACEC management including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Hasselbach	Linda	National Park Service - Alaska Regional Office	None	123	8	Wildlife	208.0700.00	Published research demonstrates the adverse effects of roads on caribou movement (Wilson et al. 2016) and caribou habitat (Wilson et al. 2014, Chen et al. 2017). This is important in relation to any road corridors (e.g., Umiat) that would be developed to access areas with mineral potential. Effects here accrue to not only wildlife, but also subsistence users who rely on wildlife.	Section 3.2.7, Wildlife, has been revised to include more discussion about the impacts of development on caribou.
Hasselbach	Linda	National Park Service - Alaska Regional Office	None	123	9	Wildlife	208.0700.00	Moose migrate between Gates of the Arctic NPP and Kanuti NWR. Retaining closures and limiting development and ROWs north of the Kanuti River and west of the Dalton Highway would help maintain connectivity between these two federal conservation units.	Connectivity corridors and their proposed management are described in **Appendix G** of the RMP/EIS. In **Appendix G**, the BLM explains "It is important to recognize that landscape connectivity corridors are landscape management features, not wildlife management features. The intent is not to capture currently used migration corridors, but to sustain resilience and capacity for adaptability in response to change." As such, while the connectivity corridors cannot reflect habitat needs for all individual species, they would maximize connectivity while achieving landscape conservation goals on lands managed for multiple uses.
Hasselbach	Linda	National Park Service - Alaska Regional Office	None	123	10	Wildlife	208.0700.00	Sheep move between eastern Gates of the Arctic NPP and the Dalton Highway corridor, so retaining closures and limiting development and ROWs all along this border to Galbraith is key for sheep in addition to moose. Sheep habitat (winter and summer) extends north of Gates of the Arctic NPP as far as there are foothills and into the Castle Mountain/Fortress Mountain portion of the park.	Connectivity corridors and their proposed management are described in **Appendix G** of the RMP/EIS. In **Appendix G**, the BLM explains "It is important to recognize that landscape connectivity corridors are landscape management features, not wildlife management features. The intent is not to capture currently used migration corridors, but to sustain resilience and capacity for adaptability in response to change." As such, while the connectivity corridors cannot reflect habitat needs for all individual species, they would maximize connectivity while achieving landscape conservation goals on lands managed for multiple uses.
Mayo	Gail	Arctic Audubon Society	None	124	5	Wildlife	208.0700.00	BIRDS The CYDRMP/EIS does not provide specifics for consideration of birds other than Golden Eagles, but it does refer to guidelines provided by USFWS for protection for nesting birds. The Central Yukon Management Area is home to a wide diversity of breeding, nesting and nurturing habitats for a wide diversity of bird species. Some are species of special concern, all are prone to disturbance. The disturbance factor for each bird needs to be considered in almost every vegetation community but is greatest in wetlands. The majority of bird species that are considered to be of conservation concern are wetland species. Audubon Alaska has prepared lists of Alaskan bird species of conservation concern, using scientific criteria to rate species vulnerability. (Warnock, N.2017. The Alaska Watchlist 2017).	Management actions for general wildlife, general species of special concern, water, fish, and riparian vegetation, and vegetation as shown in Tables 2-4, 2-5, 2-2, and 2-14, respectively, would be sufficient to protect the additional avian species of concern mentioned by the commenter. Impacts described for wildlife in Section 3.2.7 would include impacts on these species, even if they are not specifically mentioned. Section 3.2.7, Wildlife, has been revised to include additional discussion of impacts on sensitive avian habitats, including riparian shrub and forest habitats.
Rohrer	Trenton	No organization name	None	132	4	Wildlife	208.0700.00	Include in the final draft, the Core Caribou Habitat Areas and ACEC's designated to protect Caribou herds and calving grounds. The BLM's Preferred Alternative C2 currently lists 746,000 acres of land as Core Caribou Habitat. While I support this designation I would like to see the addition of the overlapping ACEC's, as proposed in Alternative B, for additional protection of caribou.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM considers reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A).
Rohrer	Trenton	No organization name	None	132	5	Wildlife	208.0700.00	Include in the final draft, the Dall Sheep Habitat Areas, Dall Sheep Movement Corridors and Dall Sheep Study Areas as proposed in Alternative C1 as well the addition of ACEC's that overlap Dall Sheep habitat as proposed in Alternative B. Further, I would support the withdrawal of lands from mineral entry within a .5 mile radius of identified mineral licks. The Preferred Alternative C2 does not identify any amount of land as Dall Sheep habitat, movement corridors or study areas despite the BLM's designation of such land in Alternative C1. Furthermore, the BLM states in the planning document that while it is the responsibility of the state to manage wildlife, it is the BLM's responsibility to manage wildlife habitat on federal lands. The BLM also designates Dall Sheep among the priority species in the planning area. The exclusion of any sheep habitat land in the Preferred Alternative C2 does not serve the interests of sportsmen and women, does not promote a healthy management relationship with state agencies and does not meet the BLM's goal of habitat management.	The BLM has included a range of alternatives related to Dall sheep management that would meet the wildlife goals. Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of Dall sheep habitat; these would be described in the Record of Decision for the RMP/EIS.
Berendzen	Steve	U.S. Fish and Wildlife Service	Arctic National Wildlife Refuge	134	3	Wildlife	208.0700.00	The Arctic Refuge supports the BLM's proposal found in all Action Alternatives to classify certain BLM lands as structural connectivity corridors between major conservation units. In particular, those BLM lands with enduring landscape features between the Arctic Refuge and the Gates of the Arctic National Park and Preserve in the Brooks Range (and within the Dalton Highway Utility Corridor PL05150) as described in Appendix G and as depicted in map G-3 (page G-9). The designation of these enduring connectivity corridors supports other management and conservation decisions generally found in Alternative B of the CYRMP and that complement Arctic Refuge management goals. However, these connectivity corridors will only function for their intended purpose if other activities that could compromise this function are prevented from occurring. For example, disturbance from mineral extraction or changing jurisdictional oversight of these lands could negate any benefits from designating an area as a connectivity corridor. This could result in some of these being a corridor in name only, but not in function, so connectivity corridors should have additional protections to allow that desired function.	Connectivity corridors are considered within the range of alternatives and management would vary by alternative (RMP/EIS Chapter 2 and **Appendix G**). Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of the connectivity corridors; these would be described in the Record of Decision for the RMP/EIS.
Berendzen	Steve	U.S. Fish and Wildlife Service	None	134	9	Wildlife	208.0700.00	The Central Yukon RMP has 3 defined Dall Sheep Special Management Areas (Page 3-80); Dall Sheep Habitat Areas (DSHA), Dall Sheep Movement Corridors (DSMC) and Dall Sheep Study Areas (DSSA). The RMP defines Dall Sheep Movement Corridors as "BLM-managed lands identified as having significant value to Dall sheep for accessing seasonal ranges, mineral sources, forage habitat, and escape terrain." The protections afforded this designation include such management actions as seasonal restrictions on noise, travel, and disturbance in Dall sheep habitat. The 3 different Dall Sheep Special Management Areas were designated only in Alternative C 1 . The Refuge recommends the designation of the 3 Dall Sheep Management Areas as defined in Alternative C 1. The Refuge also submits that these Management Areas should also be defined through the other Alternatives, including Alternative B. To further protect Dall Sheep movement and genetic diversity, Arctic NWR recommends adding additional BLM acreage of DSMC, to include those areas of BLM land near the Chandalar Shelf north beyond the Atigun Pass and terminating near Galbraith Lake.	The BLM has included a range of alternatives related to Dall sheep management that would meet the wildlife goals. Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of Dall sheep habitat; these would be described in the Record of Decision for the RMP/EIS.

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Berendzen	Steve	U.S. Fish and Wildlife Service	Arctic National Wildlife Refuge	134	10	Wildlife	208.0700.00	In Chapter 3, Page 3-145, the plan states that all the action alternatives would require maintaining effective separation between domestic animals and Dall sheep (Wild Sheep Working Group 2012; consistent with BLM Manual 1730). Domestic sheep and goats are prohibited in Dall sheep habitat; however, use of camelids (including alpacas and llamas) as pack animals would be authorized as appropriate through the normal permitting process. Table 2-29 The CYRMP is unclear as to what the permitting process would include for disease mitigation nor is it clear on when or how the use of camelids would be determined to be safe and appropriate. We suggest changing all the action alternatives to include additional protection for Dall sheep by prohibiting all domestic sheep, goats AND camelids in Dall Sheep habitat; primarily areas in the Brooks Range along the Dalton Highway utility corridor north of Coldfoot, AK (as generally depicted in Map 2.2 Dall Sheep Management Area).	Concerns regarding disease transmission between camelids and wild sheep are noted. ADFG and The Alaska Chapter of the Wildlife Society have advised caution but have not recommended complete exclusion. The permitting process being referred to is the NEPA process which does not need to be explained in the text. Language regarding camelids has been changed in Table 2-6 to reference "pack animals" and provides the authorized officer discretion in determining whether camelids are appropriate in site-specific circumstances.
Berendzen	Steve	U.S. Fish and Wildlife Service	Arctic National Wildlife Refuge	134	11	Wildlife	208.0700.00	Camelids are a known carrier of pathogens that are of concern for transmission to ungulates, particularly Dall Sheep. While few peer-reviewed studies have directly investigated the transmission of pathogens from camelids to wild sheep, there have been assessments that advise caution. Schwantje and Stephen (2003) stated that llamas commonly carry pathogens that can cause disease in wild ungulates. They expressed particular concern for fecal-borne disease, such as Johne's disease, and Pasteurella spp. Johne's disease is fatal, easily transmitted among ruminants, long-lived in the environment, and has no known treatment. In another risk assessment by the Centre for Coastal Health (2017), seven common camelid pathogens were identified that could potentially present significant risks to wild sheep populations. Mannheimia haemolytica, Pasteurella spp., contagious ecthyma, bovine viral diarrhea virus, Mycobacterium avium paratuberculosis (Johne's Disease), Bluetongue virus, and Mycobacterium bovis. They concluded that M. haemolytica, Pasteurella spp., contagious ecthyma, and Johne's Disease (Mycobacterium avium subsp. paratuberculosis) were of particular concern. Both studies expressed concern regarding disease transmission from contact between camelids and wild sheep and their habitat. The Arctic NWR recently passed regulations prohibiting domestic sheep, goats and camelids to mitigate disease transmission risk. A similar prohibition of these domestic species in BLM administered Dall Sheep habitat would complement the Refuges management goals and would provide added protections for Dall Sheep conservation in the Brooks Range.	Concerns regarding disease transmission between camelids and wild sheep are noted. ADFG and The Alaska Chapter of the Wildlife Society have advised caution but have not recommended complete exclusion. The permitting process being referred to is the NEPA process which does not need to be explained in the text. Language regarding camelids has been changed in Table 2-6 to reference "pack animals" and provides the authorized officer discretion in determining whether camelids are appropriate in site-specific circumstances.
Berendzen	Steve	U.S. Fish and Wildlife Service	Arctic National Wildlife Refuge	134	12	Wildlife	208.0700.00	Similar to the CYRMP's approach for camelids and effective separation, the Arctic Refuge considered allowances on a case by case basis, but dismissed the concept. Preventing the introduction (e.g., pathway management) of invasive species and pathogens is the first line and most cost-effective defense against biological invasion. The cost of managing pathogen(s) once transmitted to wild sheep by domestic sheep, goats and camelids (i.e., eradicating or controlling) is exponentially higher. Additionally, there is uncertainty that if the Dall sheep populations were to be infected with any of the known pathogens, that recovery of these populations would be achievable. To conserve the natural diversity of the Arctic NWR and integrity of Dall sheep populations in the refuge, the best course of action is to prevent the introduction of pathogens until there is more information available on how (or if) pathogens can be effectively managed through other mitigation strategies. Since a permitting system would not necessarily prevent the introduction of pathogens and would do nothing to help control an outbreak or mitigate adverse effects to Dall sheep, the Service chose not to include a permit option in its final regulation prohibiting domestic sheep, goats and camelids.	Concerns regarding disease transmission between camelids and wild sheep are noted. ADFG and The Alaska Chapter of the Wildlife Society have advised caution but have not recommended complete exclusion. The permitting process being referred to is the NEPA process which does not need to be explained in the text. Language regarding camelids has been changed in Table 2-6 to reference "pack animals" and provides the authorized officer discretion in determining whether camelids are appropriate in site-specific circumstances.
Whitehill	Barry	No organization name	None	137	4	Wildlife	208.0700.00	I support the identification of Core Caribou Ranges for the Galena and Ray Mountain Herds in Alternative C1 and ask that these areas be included in the final CYRMP and expanded to include Core Caribou Range for the Hodzana Herd. I would also like to see additional conservation protections applied to all three small caribou herds in the final CYRMP such as, protections for calving seasons, ROW avoidance or exclusion and a reduction of acreage open to mineral location.	Protections for Core Caribou Ranges are considered within the range of alternatives and management would vary by alternative (RMP/EIS Chapter 2 and **Appendix G**). Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of the Core Caribou Ranges; these would be described in the Record of Decision for the RMP/EIS.
Whitehill	Barry	No organization name	None	137	5	Wildlife	208.0700.00	I would also ask that the BLM consider the impacts of mining activity and associated development on caribou: * avoidance of mines by caribou up to 4 km away (USBLM Ambler DEIS, pg. H-51) * displacement from disturbance 9.6 km (USBLM Ambler DEIS pg. 3-74) * displacement from roads up to 15 km (Plante et al. 2018) * avoidance of mines 11-14 km (Boulanger et al. 2012) * avoidance by caribou around mines 20-23 km (Plante et al. 2018)	Section 3.2.7 has been revised to include additional analysis and citations regarding impacts from development on caribou.
Whitehill	Barry	No organization name	None	137	6	Wildlife	208.0700.00	The BLM should disallow or implement strict permit stipulations on mineral development within Core Caribou Ranges. If the BLM does not disallow mineral development, then the stipulations on surface activity should be timed to minimize impacts on caribou. Core Caribou Ranges should also be applied to the Western Arctic Caribou Herd, Central Arctic and Porcupine Herds. Although these caribou herds ranges extend outside of the Central Yukon Planning Area, the BLM should consider the affect that this CYRMP will have on the management of the caribou herds. The BLM should coordinate with other federal and state management agencies and landholders to ensure cooperative management of caribou is achieved. In other words, the final CYRMP needs to include Core Caribou Ranges for all caribou herds that use the Central Yukon Planning Area, with the above-mentioned additional protections be included.	The BLM has included a range of alternatives related to caribou management that would meet the wildlife goals. These include management for potentially affected herds in the planning area. The additional requested herds for consideration are outside of the planning area and thus management of BLM-administered lands has limited influence on those herds.
Richards	Frank	Alaska Gasline Development Corporation	None	138	5	Wildlife	208.0700.00	Dall Sheep Habitat Areas and Movement Corridors Issue: a. Proposed Dall Sheep movement corridors (DSMC) and study areas (DSSA) are extensive and appear to abut the utility corridor with some overlap of the Alaska LNG Project footprint. Any restrictions on construction and operation of the Alaska LNG Project imposed by these designations in overlap of the Project footprint may negatively impact constructability of the Project. Resolution: AGDC requests that BLM modify the margins of the DSMC and DSSA so as to not overlap the Alaska LNG Project footprint. Or, alternatively, AGDC requests that BLM include language in the final RMP that specifically allows for construction, access, and operations of the Alaska LNG Project in DSMC and DSSA locations.	Existing authorizations would be permitted to proceed as authorized. Restrictions associated with the RMP would be applied on any new authorizations after signing the Record of Decision for the RMP/EIS.
Cole	Jeanie	Alaskans for Wildlife	None	142	10	Wildlife	208.0700.00	We support connectivity corridors and their inclusion in all alternatives as maintaining connectivity will reduce climate change stressors on wildlife populations. According to Appendix G, management actions in corridors would focus on retaining habitat connectivity, minimizing habitat fragmentation or loss, and avoiding barriers to wildlife movement. Connectivity corridors would be managed by applying the standard operating procedures in Appendix F. Presumably this means all the SOPS that apply to surface disturbing activities and not just the single SOP LANDSCAPE-1. We recommend revising the preferred alternative to add more specified management within connectivity corridors either through additional standard operating procedures or caps on disturbance similar to decisions for Dall Sheep habitat areas or SOP BENCHMARK-1. A connectivity corridor overlapping with the Dall sheep movement corridor (DSMC) near Wiseman would be appropriate. The DSMC are based on current data on sheep movement. We recommend considering an additional connectivity corridor here.	Connectivity corridors are considered within the range of alternatives and management would vary by alternative (RMP/EIS Chapter 2 and **Appendix G**). Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of the connectivity corridors; these would be described in the Record of Decision for the RMP/EIS.
Cole	Jeanie	Alaskans for Wildlife	None	142	11	Wildlife	208.0700.00	We support identified Dall sheep habitat areas and management as outline in Alternative C1 as it is the most protective alternative for Dall sheep. These areas and identified management measures, including disturbance caps, noise restrictions, and best management practices in Appendix I, should also be included in the preferred alternative. Table 2-4 recommends withdrawal of 4,600 acres Dall Sheep Habitat Areas (DSHA) from locatable mineral entry. We support withdrawal of DSHA from locatable mineral entry and this action should be included in the preferred alternative. The recommended withdrawal is less than 0.1% of the planning area and is under the 5,000 acre threshold in section 1326(a) of ANILCA. We support limiting the use of domestic sheep, goats, and camelids as pack animals within Dall sheep habitat (Table 2-6). There is ample evidence of disease impacts to Dall sheep from domestic goats and sheep and while there is less evidence regarding camelids, management should be conservative and protective of sheep first. We suggest adding this decision to Table 2-4 as well.	The BLM has tried not to duplicate management across the tables in Chapter 2; as such, the management in Table 2-6 will remain there.

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Gestring	Bonnie	Earthworks	None	146	4	Wildlife	208.0700.00	Similarly, the preferred Alternative does not conform with the goals and objectives for wildlife. According to the DEIS, Alternative C2 would "increase the loss of important habitat and potential disturbance of Dall sheep from approved activities, "with the potential for displacement from important mineral licks and movement corridors and potential impacts on productivity or survival…" It could "further lower the probability of maintaining a viable" Galena Mountain caribou herd population. (DEIS, p. 3-87 and 3-88) The Galena Mountain caribou herd (GMH) is small and thought to be declining. These predictions conflict with the established RMP goals and objectives to: "Manage wildlife habitat to ensure self-sustaining populations and a natural abundance, distribution, and diversity of wildlife." (DEIS p. 2-22) It also conflicts with the established objectives to: 1) Provide habitat of sufficient quantity, quality, and connectivity to allow for stable populations of wildlife, 2) Effectively avoid or minimize impacts on wildlife and wildlife habitat, 3) Apply mitigation measures that effectively protect wildlife and wildlife habitat, and 4) Minimize wildlife habitat fragmentation and impacts on wildlife. (DEIS, p. 2-22)	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified during scoping, including those related to wildlife. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). The resulting action alternatives offer a range of possible management approaches for responding to planning issues and concerns related to wildlife. While the goals and objectives for wildlife are the same across alternatives, each alternative contains a discrete set of objectives and management actions and constitutes a separate RMP with the potential for different long-range outcomes and conditions.
Gestring	Bonnie	Earthworks	None	146	47	Wildlife	208.0700.00	Providing for habitat connectivity is the most effective strategy to allow wildlife to adapt to a changing climate. A review of peer-reviewed articles found that the most common recommendation for protecting biodiversity in the face of climate change was to increase connectivity.50 50 Heller, N.E., and E.S. Zavelata. 2009. Biodiversity management in the face of climate change: a review of 22 years of recommendations. Biological Conservation 142(2009): 14-32. The preferred alternative does not adequately manage for connectivity in order to protect the viability of wildlife populations throughout and beyond the planning area. Maintaining permeability for wildlife throughout and beyond the planning area in the form of protected wildlife corridors is vital to facilitate wildlife and plant adaptation to climate change. Climate change affects natural systems and wildlife populations by exacerbating the negative effects of habitat loss, degradation, and fragmentation. As acknowledged in the DEIS, climate disruptions in the planning area are changing seasonal patterns of precipitation and temperature resulting in changes in long-term fire patterns and drought and flood cycles. To adapt and survive wildlife already are and will continue to adjust their home ranges and movement patterns.51 51 Chen I-C., J.K. Hill, F. Ohlemuller, D.B. Roy, and C.D. Thomas. 2011. Rapid range shifts of species associated with high levels of climate warming. Science 333:1024-1026.	Connectivity corridors are considered within the range of alternatives and management would vary by alternative (RMP/EIS Chapter 2 and **Appendix G**). Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of the connectivity corridors; these would be described in the Record of Decision for the RMP/EIS.
Gestring	Bonnie	Earthworks	None	146	48	Wildlife	208.0700.00	Facilitating wildlife movement will be crucial for preventing biodiversity losses.52To bolster this argument, Gilbert-Norton et al.,53in their review of empirical studies of corridors, found that corridors increase movement between habitat patches by approximately 50% compared to patches that are not connected by corridors. Further, McGuire et al.54found that introducing corridors to facilitate movement increases the percentage of climatically connected natural area from 41% to 65%. Therefore, increasing connectivity is critical as it allows species to move to find suitable climates in response to rapid changes. Thus, conserving corridors is a strategic method to ensure wildlife can move in response to environmental change. 52 Mawdsley, J.R., R. O'Malley, and D.S. Ojima. 2009. A review of climate-change adaptation strategies for wildlife management and biodiversity conservation. Conservation Biology 23(5):1080-1089; McGuire, J.L, J. J. Lawler, B. H. McRae, T. A. Nunez, and D. M. Theobald. 2016. Achieving Climate Connectivity in a Fragmented Landscape. PNAS 113 (26): 7195-7200. 53 Gilbert-Norton, L., R. Wilson, J.R. Stevens, and K.H. Beard. 2010. A meta-analytic review of corridor effectiveness. Conservation Biology 24(3): 660-668. 54 McGuire, J.L, J. J. Lawler, B. H. McRae, T. A. Nunez, and D. M. Theobald. 2016. Achieving Climate Connectivity in a Fragmented Landscape. PNAS 113 (26): 7195-7200.	Connectivity corridors are considered within the range of alternatives and management would vary by alternative (RMP/EIS Chapter 2 and **Appendix G**). Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of the connectivity corridors; these would be described in the Record of Decision for the RMP/EIS. Several of the suggested references have been included in the Proposed RMP/Final EIS in Section 3.2.7.
Gestring	Bonnie	Earthworks	None	146	49	Wildlife	208.0700.00	The preferred alternative is entirely void of adequate management that ensures protection of wildlife connectivity corridors. In order to adequately manage for habitat connectivity in the planning area, the final plan must: 1. More robustly protect the connectivity areas outlined in Map G-3 (G-9). "Doing ROW avoidance where practicable" is completely inadequate. At best, these identified corridors would be formally designated as "wildlife movement corridors" and be managed primarily to protect intact, undisturbed habitat. Management standards in these areas should include no revocation of PLOs within these corridors, no revocation of D1 withdrawals, and high percentages of ROW avoidance, much higher than those currently proposed. 2. SOP Landscape 1 (F-14), to protect connectivity corridors, must be applied to all alternatives, rather than just Alternative B, as stated in the current document in Chapter 3 (3-84). 3. Include an SOP Benchmark 4 in Appendix F requiring the use of BEACONS-type GIS products to identify areas with minimal conflict to maintaining ecological connectivity with each locatable mineral and ROW permit decision. 4. Include results from Gabrielsen's (2019) research55 into the Final EIS analysis, to complement the geo-diversity connectivity corridor results from Magness et. al. (2018). Gabrielsen's results indicate that rivers and waterways (and terrestrial areas) provide crucial (in the face of a changing climate) corridors to allow for the movement of fish, wildlife and plants. Therefore, these areas should receive priority protection and allocations over other resource uses. 55 Gabrielsen, C. 2019. Evaluating climate connectivity for proactive landscape conservation planning in Alaska and Northwest Canada. Unpublished Report to USFWS. University of Alaska Fairbanks, Institute of Arctic Biology, Alaska Cooperative Fish and Wildlife Research Unit.	Connectivity corridors are considered within the range of alternatives and management would vary by alternative (RMP/EIS Chapter 2 and **Appendix G**). Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of the connectivity corridors; these would be described in the Record of Decision for the RMP/EIS. All of the action alternatives incorporate climate change adaptability. At the implementation level, the BLM will incorporation additional best available science regarding climate adaptation for site-specific decisions.
Gestring	Bonnie	Earthworks	None	146	50	Wildlife	208.0700.00	Realty decisions in the planning area must take into account the potentially disastrous and irreversible effects to connectivity. Currently the land and realty proposals within the plan including entirely revoking the 5150 withdrawal along the Dalton corridor and granting a ROW in the Jim River ACEC are at odds with protecting habitat connectivity to benefit the wildlife species of the planning area. The final plan must recognize the need of wildlife and plants to adapt to the current and anticipated effects of climate change, and then explicitly protect connectivity on the landscape in the above ways.	Connectivity corridors are considered within the range of alternatives and management would vary by alternative (RMP/EIS Chapter 2 and **Appendix G**). Components of several alternatives may be chosen, including not revoking the PLO 5150 withdrawal and not granting a ROW in the Jim River ACEC; these would be described in the Record of Decision for the RMP/EIS.
Gestring	Bonnie	Earthworks	None	146	51	Wildlife	208.0700.00	We appreciate that Alternative C1 designates two Core Caribou Ranges for the Galena and Ray Mountain Herds, and we support these designations. We also recommend the BLM include similar designation of Core Caribou Range for the Hodzana Herd. While these designations are significant for these three small herds, we also request that the BLM consider inclusion of Core Caribou Range for the northern caribou herds, namely the Western Arctic Caribou Herd (WACH) but also the Central Arctic and Porcupine Herds. The WACH is the largest caribou herd in the State of Alaska, however, its numbers fluctuate and like many caribou herds, its ranges fluctuate year-to-year and decade-to-decade. Changes to range will likely continue moving forward, particularly as the herd responds to climate change impacts. The full WACH range spans more than 100 million acres, and while most of that acreage is outside of the CYRMP, it is incumbent on the BLM to coordinate with other federal and state agencies (including NPS, FWS, and ADF&G), as well as other landholders and managers, to cooperatively manage the WACH across managerial boundaries. We recommend that the BLM include Core Caribou Range for WACH summer range as indicated by the best-available data. We also recommend that the BLM adaptively manage all caribou Core Caribou Ranges within the CYRMP annually based on new data that may indicate changes in which lands caribou herds utilize during calving, migration, and wintering.	The BLM has included a range of alternatives related to caribou management that would meet the wildlife goals. These include management for potentially affected herds in the planning area. The additional requested herds for consideration are outside of the planning area and thus management of BLM-administered lands has limited influence on those herds.

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Gestring	Bonnie	Earthworks	None	146	52	Wildlife	208.0700.00	Additionally, we request that the BLM disallow permitting of mineral development and associated infrastructure development within these Core Caribou Ranges, given the scientific literature that documents a wide range of estimates of caribou displacement from disturbance related to mining (ADFG 2015, Wilson et al. 2016, Plante et al. 2018, Boulanger et al. 2012).56 56 Plante, S., Dussault, C., Richard, J.H., Côté, S.D. 2018. Human disturbance effects and cumulative habitat loss in endangered migratory caribou. Biological Conservation 224, 129-143; Boulanger et al., Estimating the zone of influence of industrial development on wildlife: "A migratory caribou Rangifer tarandus groenlandicus and diamond mine case study," Wildlife Biology, June 2012.; Wilson et al., "Effects of roads on individual caribou movements during migration," Biological Conservation, 2016.; ADF&G, "Caribou Management Report of Survey - Inventory Activities, 1 July 2012-30 June 2014. If the BLM does allow mineral development within these areas, we recommend robust permitting processes with strict stipulations on timed surface activity that strictly minimizes impacts to caribou. We support the seasonal closures of May 1 - June 30 for calving of the Galena and Ray Mountain Herds, and we recommend that those closures be adaptively managed and possibly expanded as new data indicates and the climate of the planning area warms. We appreciate that Alternative B includes flight restrictions below 2000 feet during calving periods within the Core Caribou Ranges, and we recommend that those closures be included in the final alternative as an SOP, regardless of the alternative chosen. We request that these measures apply for the additional Core Caribou Ranges as outlined above.	While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives related to caribou management. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS. Section 3.2.7 has been revised to include additional analysis and citations regarding impacts from development on caribou.
Gestring	Bonnie	Earthworks	None	146	53	Wildlife	208.0700.00	Regarding management of Dall sheep populations, Alternative C-2 does not provide adequate analysis of the likely effects of roads, mining, and increased human access on Dall sheep. As much of the Dall sheep habitat is found in PLO 5150 and Dall sheep population numbers are believed to be decreasing, it is imperative that PLO 5150 is maintained. Additionally, as outlined at the beginning of these comments, we support the adoption of the newly designated Dall Sheep Habitat Areas, Dall Sheep Movement Corridors, and Dall Sheep Study Area (538,900 acres combined) proposed in Alt. C-1. These areas should be modified to include additional safeguards, such as restrictions on development activities within 0.5 miles of mineral licks, and increased ROW exclusions. Additionally, there should be a commitment in the FEIS to monitor sheep numbers and distribution, in cooperation with ADFG and/or NPS, especially given the lack of current protective measures.	While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives related to Dall sheep management. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including those suggested by the commenter, since the wildlife goals and objectives in Chapter 2 include population and habitat monitoring. Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS. Alternative C2 sufficiently analyzes the effects described by the commenter in Section 3.2.7.
Gestring	Bonnie	Earthworks	None	146	54	Wildlife	208.0700.00	Climate change is the biggest risk to the long-term survival of wildlife populations around the world.57 The Central Yukon planning region incorporates designated Important Bird Areas and critical migration corridors for over 200 species of birds. Climate change is also the largest threat to the survival of bird species across the globe, including many of the species found in Alaska.58 We have provided some specific climate change analyses for the Central Yukon planning area. The first map illustrates the individual climate threats for wildlife within the planning region, and the cumulative total of these climate threats. This information could be applied to a more robust analysis of the cumulative impacts of climate change on wildlife populations based on the different alternatives presented in the DEIS. 57 IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. S. Díaz, J. Settele, E. S. Brondízio E.S., H. T. Ngo, M. Guèze, J. Agard, A. Arneth, P. Balvanera, K. A. Brauman, S. H. M. Butchart, K. M. A. Chan, L. A. Garibaldi, K. Ichii, J. Liu, S. M. Subramanian, G. F. Midgley, P. Miloslavich, Z. Molnár, D. Obura, A. Pfaff, S. Polasky, A. Purvis, J. Razzaque, B. Reyers, R. Roy Chowdhury, Y. J. Shin, I. J. Visseren-Hamakers, K. J. Willis, and C. N. Zayas (eds.). IPBES secretariat, Bonn, Germany. 56 pages. https://doi.org/10.5281/zenodo.3553579 58 Bateman, B.L., C.B. Wilsey, L. Taylor, J. Wu, G.S. LeBaron, and G. Langham. 2020. North American birds require mitigation and adaptation to reduce vulnerability to climate change. Conservation Science and Practice, 2(8) e242 https://conbio.onlinelibrary.wiley.com/doi/pdf/10.1111/csp2.242 The second set of maps illustrate "strongholds" or those areas that have been identified across Alaska, and within the Central Yukon planning region, as important forests and wetlands for carbon sequestration and habitat connectivity in the face of climate change. These strongholds hold both high carbon values, as well as high wildlife values (number of species, aggregates of connectivity). These maps illustrate that both forests and wetlands within the Central Yukon planning region are important climate strongholds. The DEIS mentions changes to the landscape due to climate change, but does not address the overall value of intact habitats under the "no action" alternative, or others, that could contribute to an overall decrease of carbon dioxide emissions from these lands. As the BLM moves into future accounting procedures for mitigating the impacts of climate change across federal lands, regions within the Central Yukon planning area will be important carbon sinks and sources of intact habitats. We recommend including an analysis of the carbon budget in intact landscapes, and the various "climate footprints" of each alternative.59 59 Merrill, M.D., Sleeter, B.M., Freeman, P.A., Liu, J., Warwick, P.D., and Reed, B.C., 2018, Federal lands greenhouse gas emissions and sequestration in the United States-Estimates for 2005-14: U.S. Geological Survey Scientific Investigations Report 2018-5131, 31 p., https://doi.org/10.3133/sir20185131. https://pubs.usgs.gov/sir/2018/5131/sir20185131.pdf	Additional analysis has been included in Section 3.2.7, Wildlife, in the affected environment regarding the impacts from climate change on wildlife.
Gestring	Bonnie	Earthworks	None	146	55	Wildlife	208.0700.00	BLM should provide a robust cumulative impacts analysis on the impacts of climate change, under each alternative, on the Western Arctic Caribou Herd. Our map below illustrates the importance of regions with the Central Yukon planning area for calving, wintering, and migrating activities and associated regions. With climate change, rain on snow events (one of the climate impacts in our analysis) are predicted to increase and current conditions illustrate these impacts on caribou feeding and migration timing.60 60 Bieniek, Peter A., Uma S. Bhatt, John E. Walsh, Rick Lader, Brad Griffith, Jennifer K. Roach, and Richard L. Thoman. "Assessment of Alaska Rain-on-Snow Events Using Dynamical Downscaling.". Journal of Applied Meteorology and Climatology 57.8 (2018): 1847-1863. < https://doi.org/10.1175/JAMC-D-17-0276.1>. Web. 6 Mar. 2021. Climate change impacts should not be underestimated in any BLM planning process. Under FLPMA, BLM is legally obligated to manage resources "without permanent impairment of the productivity of the land and the quality of the environment." BLM has a statutory duty to mitigate the impacts of climate change, and these issues should be adequately addressed as part of a cumulative impact analyses for all wildlife, habitats and subsistence uses within the Central Yukon RMP DEIS.61 61 Gibbs, J., J.C. Ruple, and N.W. Culver. 2020. A road map to net-zero emissions for fossil fuel development on public lands. Environmental Law Reporter 50 ELR 10734-10743. https://www.eli.org/sites/default/files/docs/elr_pdf/50.10734.pdf	Additional analysis has been included in Section 3.2.7, Wildlife, regarding the impacts from climate change on wildlife.
Gestring	Bonnie	Earthworks	None	146	56	Wildlife	208.0700.00	Climate change is the biggest risk to the long-term survival of wildlife populations around the world.57 The Central Yukon planning region incorporates designated Important Bird Areas and critical migration corridors for over 200 species of birds. Climate change is also the largest threat to the survival of bird species across the globe, including many of the species found in Alaska.58 We have provided some specific climate change analyses for the Central Yukon planning area. The first map illustrates the individual climate threats for wildlife within the planning region, and the cumulative total of these climate threats. This information could be applied to a more robust analysis of the cumulative impacts of climate change on wildlife populations based on the different alternatives presented in the DEIS. 57 IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. S. Díaz, J. Settele, E. S. Brondízio E.S., H. T. Ngo, M. Guèze, J. Agard, A. Arneth, P. Balvanera, K. A. Brauman, S. H. M. Butchart, K. M. A. Chan, L. A. Garibaldi, K. Ichii, J. Liu, S. M. Subramanian, G. F. Midgley, P. Miloslavich, Z. Molnár, D. Obura, A. Pfaff, S. Polasky, A. Purvis, J. Razzaque, B. Reyers, R. Roy Chowdhury, Y. J. Shin, I. J. Visseren-Hamakers, K. J. Willis, and C. N. Zayas (eds.). IPBES secretariat, Bonn, Germany. 56 pages. https://doi.org/10.5281/zenodo.3553579 58 Bateman, B.L., C.B. Wilsey, L. Taylor, J. Wu, G.S. LeBaron, and G. Langham. 2020. North American birds require mitigation and adaptation to reduce vulnerability to climate change. Conservation Science and Practice, 2(8) e242 https://conbio.onlinelibrary.wiley.com/doi/pdf/10.1111/csp2.242	Additional analysis has been included in Section 3.2.7, Wildlife, in the affected environment regarding the impacts from climate change on wildlife.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Gestring	Bonnie	Earthworks	None	146	57	Wildlife	208.0700.00	The second set of maps illustrate "strongholds" or those areas that have been identified across Alaska, and within the Central Yukon planning region, as important forests and wetlands for carbon sequestration and habitat connectivity in the face of climate change. These strongholds hold both high carbon values, as well as high wildlife values (number of species, aggregates of connectivity). These maps illustrate that both forests and wetlands within the Central Yukon planning region are important climate strongholds. The DEIS mentions changes to the landscape due to climate change, but does not address the overall value of intact habitats under the "no action" alternative, or others, that could contribute to an overall decrease of carbon dioxide emissions from these lands. As the BLM moves into future accounting procedures for mitigating the impacts of climate change across federal lands, regions within the Central Yukon planning area will be important carbon sinks and sources of intact habitats. We recommend including an analysis of the carbon budget in intact landscapes, and the various "climate footprints" of each alternative.59 59 Merrill, M.D., Sleeter, B.M., Freeman, P.A., Liu, J., Warwick, P.D., and Reed, B.C., 2018, Federal lands greenhouse gas emissions and sequestration in the United States-Estimates for 2005-14: U.S. Geological Survey Scientific Investigations Report 2018-5131, 31 p., https://doi.org/10.3133/sir20185131. https://pubs.usgs.gov/sir/2018/5131/sir20185131.pdf	Additional analysis has been included in Section 3.2.7, Wildlife, in the affected environment regarding the impacts from climate change on wildlife.
Gestring	Bonnie	Earthworks	None	146	85	Wildlife	208.0700.00	While the Central Yukon DEIS contains a leasing stipulation requiring no surface occupancy or use within 0.5 miles of golden eagle nests,80 it does not provide similar protections - and it should - to bald eagles and other raptors. It is insufficient to merely manage federal mineral leasing within 0.5 miles of any known priority raptor nests, as is contained in the stipulation for raptor nests. 80 DEIS, p. F-22.	The BLM used the most recent and best information available that was relevant to developing the buffers and seasonal restrictions included in the SOPs. Additionally, the BLM consulted with, collected, and incorporated data from other agencies and sources, including scientific literature and field and district office data. Other raptors would be protected by a timing limitation (p. F-22 of Draft RMP/EIS).
Gestring	Bonnie	Earthworks	None	146	86	Wildlife	208.0700.00	We appreciate the inclusion of SOPs intended to reduce infrastructure impacts to wildlife like caribou. We are concerned, however, that these measures are insufficient to avoid impacts to caribou and other wildlife species, given that the RMP/DEIS acknowledges behavioral impacts and altered distribution of caribou around infrastructure,81 even in places where mitigation measures such as those proposed here are present. Additional measures are needed to ensure robust protection of priority species like caribou. 81 E.g., CYRMP Vol 1, p.3-81. The RMP/DEIS often points to mitigation measures from the North Slope as examples for the Central Yukon. It is thus surprising that there is not any timing or traffic limitations in the leasing Stips or the ROPs. Other BLM plans include stipulations specifying that oil and gas construction activity will be halted in certain places and times that are especially sensitive for caribou such as in core calving, post-calving, and insect relief habitat.82 Similarly, road traffic may be halted in the presence of caribou.83 Such measures should be integrated into the RMP/EIS and applied to all mineral leases. This is especially important for sensitive habitat of the three small herds (Ray Mountains Herd, Hodzana Hills Herd, and Galena Mountain Herd) that lie outside of ACECs or other areas in which leasing is prohibited. BLM needs to clearly specify where such habitat occurs and what Stip protections will be enacted for those areas. 82 E.g., Arctic Refuge FEIS Lease Stipulations 6 - 7, p.2-12 - 2-15; NPR-A IAP FEIS Stipulation K-9, K-14, p.2-49- 2-51, 2-53 - 2-56. 83 E.g., Arctic Refuge FEIS Lease Stipulation 8, p.2-15 - 2-16, ROP 23, p.2-31; NPR-A IAP FEIS Stipulation K-9, K-14, p.2-49 - 2-51, 2-53 - 2-56. Additional mitigation measures such as those recommended above should also be incorporated for the larger herds like the Teshekpuk Caribou Herd and Central Arctic Herd that winter in the planning area. Winter is a critical time for caribou. Foraging opportunities are limited during the winter and caribou rely on body stores of energy for survival and gestation.84 Studies in other ungulate species of displacement and altered habitat use due to energy development have noted that fitness costs are likely greater during winter, when individuals already exhibit a negative energy balance.85 Further energetic costs at such a time may lead to loss of body mass and depletion of vital energy reserves.86 84 Barboza and Parker, "Allocating Protein to Reproduction in Arctic Reindeer and Caribou, Physiological and Biochemical Zoology: Ecological and Evolutionary Approaches, Vol. 81, No. 6 (November/December 2008), pp. 538-855. 2008.; Taillon et al. "Nitrogen allocation to offspring and milk production in a capital breeder," Ecology, 94(8), 2013. 85 Northrup, J.M., Anderson Jr., C.R., Wittemyer, G. 2015. Quantifying spatial habitat loss from hydrocarbon development through assessing habitat selection patterns of mule deer. Global Change Biology 21(11), 3961-3970. 86 Bradshaw, C.J.A., Boutin, S., Hebert, D.M. 1998. Energetic implications of disturbance caused by petroleum exploration to woodland caribou. Canadian Journal of Zoology 76, 1319-1324.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM considers reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS. The action alternatives offer a range of possible management approaches for responding to planning issues and concerns identified through public scoping. While the goals are often the same across alternatives, each alternative contains a discrete set of objectives and management actions and constitutes a separate RMP with the potential for different long-range outcomes and conditions. Table 2-4 presents management for caribou across the alternatives, including ACECs and closures to resource uses. Impacts on caribou are disclosed in Section 3.2.7. Appendix F includes numerous SOPs and stipulations related to wildlife, many of which would apply in caribou habitat. With the application of the management in Table 2-4, SOPs, and stipulations, wetlands and floodplains would be protected to the extent they would meet statutory requirements. Section 3.2.7 has been revised to include additional analysis and citations regarding impacts from development on caribou.
Gestring	Bonnie	Earthworks	None	146	87	Wildlife	208.0700.00	There has been little study of winter responses by caribou to industrial development and activity in Alaska. Nonetheless, studies from Canada reveal that disturbances, such as loud noises, can lead to flight responses in caribou,87 causing them to expend additional energy, and that caribou may avoid human infrastructure and disturbance in the winter.88 Such factors can have greater effects in years of high snow depth,89 when energetic costs of movement increase90 and foraging opportunities are reduced.91 Any extra expenditures of energy that caribou undertake as a result of interactions with industrial activity or development are of concern as reproductive success in caribou is strongly correlated with nutritional stress.92 Late winter body mass of female caribou has been strongly linked to calf production and survival,93 potentially influencing population growth rates. While caribou exhibit the lowest annual movement rates during the winter,94 this does not imply a lack of awareness or response to their environment. Studies of European reindeer have found vigilance is highest in winter, compared to other seasons.95 Furthermore, a study in Canada found that caribou avoided human settlements more strongly, and showed greater cumulative habitat loss due to development, in the winter than in summer.96 87 Bradshaw, C.J.A., Boutin, S., Hebert, D.M. 1997. Effects of petroleum exploration on woodland caribou in northeastern Alberta. Journal of Wildlife Management 61(4), 1127-1133.; Bradshaw et al. 1998. 88 Johnson, C.J., Russell, D.E. 2014. Long-term distribution responses of a migratory caribou herd to human disturbance. Biological Conservation 177, 52-63.; Plante et al. 2018. 89 Bradshaw et al. 1998. 90 Fancy, S.G., White, R.G. 1987. Energy expenditures for locomotion by barren-ground caribou. Canadian Journal of Zoology 65, 122-128. 91 Fancy 1986.; Hobbs, N.T. 1989. Linking energy balance to survival in mule deer: development and test of a simulation model. Wildlife Monographs 101, 1-39.; Bradshaw et al. 1998. 92 Cameron et al. "Central Arctic Caribou and Petroleum Development: Distributional, Nutritional, and Reproductive Implications, Arctic, Vol. 58, No. 1 (March 2005) p. 1-9. 93 Albon, S.D., Irvine, R.J., Halvorsen, O., Langvatn, R., Loe, L.E., Ropstad, E., Veiberg, V., Van der Wal, R., Bjørkvoll, E.M., Duff, E.I., Hansen, B.B., Lee, A.M., Tveraa, T., Stein, A. 2017. Contrasting effects of summer and winter warming on body mass explain population dynamics in a food-limited Arctic herbivore. Global Change Biology 23, 1374-1389.; Cameron et al. 2005.; Veiberg et al. 2017. 94 Person et al., "Distribution and Movements of the Teshekpuk Caribou Herd 1990-2005: Prior to Oil and Gas Development., Arctic, Vol. 60, No. 3 (September 2007) p. 238-250. 95 Reimers et al. 2000 [in Norwegian], cited in Reimers, E., Loe, L.E., Eftestøl, S., Colman, J.E., Dahle, B. 2009. Effects of hunting on response behaviors of wild reindeer. Journal of Wildlife Management 73(6), 844-851. 96 Plante, S., Dussault, C., Richard, J.H., Côté, S.D. 2018. Human disturbance effects and cumulative habitat loss in endangered migratory caribou. Biological Conservation 224, 129-143. As the above mitigation measures are applied, it is important that they be incorporated as leasing stipulations, rather than just SOPs. Such stipulations would attach specifically to mineral leases to ensure that mitigation measures can be enforced by BLM later. Including these as stipulations will avoid situations where the lessee argues that required mitigation would impair the value of a lease, thus skirting the intended protections.	Section 3.2.7, Wildlife, has been revised to include more discussion about the impacts of development on caribou.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	10	Wildlife	208.0700.00	CONNECTIVITY CORRIDORS (CCs) * We strongly support BLM's proposal to fulfill the goals of the Central Yukon RMP by sustaining landscape connectivity between major conservation units and monitoring representative ecological benchmarks to all detection of landscape changes. Significant time has been spent trying to articulate how to establish and the importance of the connectivity corridors (CCs). Specifically, we support the CCs depicted in map G-3 and the associated SOPS in Appendix F. Of particular importance to us are the identified corridors between the Koyukuk NWR and the Kanuti NWR, between the Koyukuk and the Northern Unit of the Innoko NWR, between the Koyukuk NWR and the Nowitna NWR, and between the Nowitna NWR and Denali National Park and Preserve. Maintaining habitat connectivity is one of the most important actions managers can take to provide for resilience in the face of climate change. * It is unclear in the plan how CCs will be managed or how management varies between alternatives. We would ask for better clarification of the management of connectivity corridors within each alternative. In addition we have particular concerns about potential full revocation of PLOs in which no protections are offered through CC's, ACECs, watershed protections, and mining and mineral development restrictions if PLO selected lands are ultimately conveyed to the State of Alaska or Native entities through the ANILCA 17 (d) (1) identified process.	Connectivity corridors are considered within the range of alternatives and management would vary by alternative (RMP/EIS Chapter 2 and **Appendix G**). Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of the connectivity corridors; these would be described in the Record of Decision for the RMP/EIS.
Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	19	Wildlife	208.0700.00	Caribou * Alternative B best protects Ray Mountain and Galena Mountain caribou ranges. However, we recommend amending Alternative B to prevent revocation of PLOs within the ranges of these caribou herds (including PLOs 5173, 5180, 5179, and 5186). * Alternative B protects critical wildlife habitat in areas adjacent to Koyukuk, Nowitna, and Innoko NWRs and core calving areas of the Galena Mountain Caribou Herd through restrictions in OHV use, ROW, and aircraft use. * We support aircraft use restrictions to include prohibition of normal landings, except in an emergency or for scientific purposes, from May 1 to June 30 in the Galena Mountain ACEC for the protection of this vulnerable caribou population during calving.	The range of alternatives in the RMP/EIS represented a full spectrum of options for managing caribou including a no action alternative (current management, Alternative A). Management requested by the commenter is included in the range of alternatives. Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Rebarchik	Bob	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Innoko National Wildlife Refuges	150	20	Wildlife	208.0700.00	Beaver * Beaver are identified as a priority species in the planning area, but there are no specific objectives or management actions related to beaver provided in this document. We recommend developing specific objectives and actions for beaver populations as long as beaver are identified as a priority species in the planning area.	Special management for beaver was determined not necessary, as adequate protections would be provided through the range of alternatives for general wildlife and protections for wetlands and floodplains.
Spindler	Mike	The Wildlife Society	None	154	1	Wildlife	208.0700.00	I wanted to make your planning team aware of some preliminary research findings regarding the use of riparian habitat corridors by Canada Lynx in the planning area. Just by chance I learned of a study in which several marked lynx were followed by GPS satellite telemetry in the Central Yukon area over a multi-year period. I believe data from the study would support my recommendation last March that you strongly consider designating wildlife habitat connectivity corridors in the final FEIS/RMP for Central Yukon. Please contact the Principal Investigator Dr. Knut Keilland, at the University of Alaska Fairbanks, to obtain the shape files and other data that he and I think might be useful in understanding the importance of riparian habitat corridor in the Central Yukon area.	Connectivity corridors and their proposed management are described in **Appendix G** of the RMP/EIS. In **Appendix G**, the BLM explains "It is important to recognize that landscape connectivity corridors are landscape management features, not wildlife management features. The intent is not to capture currently used migration corridors, but to sustain resilience and capacity for adaptability in response to change." As such, while the connectivity corridors cannot reflect habitat needs for all individual species, they would maximize connectivity while achieving landscape conservation goals on lands managed for multiple uses.
Jochum	Kim	The Alaska Chapter of the Wildlife Society	None	161	1	Wildlife	208.0700.00	Since we submitted our comments on March 7, 2021, we have become aware of some preliminary research findings regarding the use of riparian habitat corridors by Canada Lynx (Felis canadensis) in the planning area. The attached graphic is a small representation of a large study and depicts the home ranges of five male and one female lynx marked with GPS collars over a multi-year period. We recommend you contact the principal investigator, Dr. Knut Kielland at the University of Alaska, Fairbanks, to obtain more details. We ask that you consider this additional information regarding an important furbearer species. We believe these lynx represent a habitat use pattern illustrating how essential connectivity corridors can be to overall ecosystem health. We contend that they are an important aspect that you should consider in the land planning and realty decisions that you will finalize in the FEIS/RMP for Central Yukon.	These submissions were received and considered at part of BLM's response to the comments they relate to. These submissions are part of the decision file, and the best available information was considered in development of the RMP/EIS.
Magee	Susan	State Of Alaska	None	165	2	Wildlife	208.0700.00	The draft CYRMP is complex and challenging to review and comment on because even though the plan identifies a preferred alternative (C-2), as demonstrated with previous BLM RMPs and reinforced by BLM at recent public meetings, we expect that BLM will create a new hybrid alternative in the final plan that is comprised of elements from all alternatives (including, as specifically noted by BLM at public meetings, Alternative A - the no-action alternative). The plan also provides little justification for proposed decisions that add layers of resource protections (primarily under Alternative B), the majority of which are unnecessary considering the existing federal and state laws and regulatory authorities that are currently in place and apply to all future proposed development projects (e.g., the National Environmental Policy Act, the Clean Water Act, Title 16 of the Alaska Statutes). And, because requests during the planning process for BLM to consult with the State as the primary manager of fish and wildlife on proposed protections for fish and wildlife were largely ignored, the State still does not have a full understanding of BLM's underlying rationale for many proposed fish and wildlife protection-oriented decisions.	Under the CEQ regulations, the BLM is required to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources as provided by section 102(2)(E) of the Act [NEPA]." (40 CFR 1501.2(c)). The range of alternatives developed includes goals and objectives that are intended to meet the purpose and need and address the issues; thereby providing a basis for eventual selection of an alternative in a decision (BLM NEPA handbook, Section 6.2). The range of alternatives considered in the RMP/EIS meets the purpose and need for the planning effort by including management in compliance with BLM's multiple use and sustained yield mission. Components of several alternatives may be chosen and the rationale for these would be described in the Record of Decision for the RMP/EIS. The BLM coordinated with cooperating agencies commensurate with each agency's recognized jurisdiction or expertise. In areas where the State of Alaska has clear jurisdiction, such as wildlife populations, the BLM has worked closely with that State agency throughout the planning process. The BLM will continue to work with the State of Alaska as the RMP/EIS planning process moves forward.
Magee	Susan	State Of Alaska	None	165	21	Wildlife	208.0700.00	We are supportive of the concept of landscape connectivity and avoiding habitat fragmentation, but the draft RMP/EIS fails to provide support for the presupposition that federal CSUs are the most important points of origin or points of destination. This flaw could specifically lead to deflecting attention away from the areas of true concern for a given population. The identification of wildlife movement corridors should be based on biologically identified populations and not on political boundaries. The draft RMP/EIS also does not identify what actions are foreseen as threats to the current state of intactness, pristine water quality, and free movement of animals, considering the lack of human use and presence over the majority of the planning area acreage.	As described in **Appendix G**, Adaptive Management Framework, the connectivity corridors were developed using the best available data. Political boundaries were not the driver of these corridors, though the federal CSUs are inherently conservation-oriented and thus provide assurances for habitat connectivity. As stated in **Appendix G**, "It is important to recognize that landscape connectivity corridors are landscape management features, not wildlife management features. The intent is not to capture currently used migration corridors, but to sustain resilience and capacity for adaptability in response to change."
Magee	Susan	State Of Alaska	None	165	22	Wildlife	208.0700.00	ADF&G is cognizant of the effect climate change will have on key habitats and its potential to impact the sustainability of Alaska's fish and wildlife resources and their uses. It is in ADF&G's interest to assess the likely impacts of climate change on fish and wildlife and to develop adaptation strategies to mitigate those impacts to meet its management responsibilities. ADF&G requested throughout the planning process to be more involved in BLM's planning effort and has requested that BLM avoid broad-scale designations and restrictions as they often diminish the ability to address site specific problems in the planning area. ADF&G (2010) laid out specific monitoring and research efforts it determined necessary to plan for future impacts to fish and wildlife species caused by changing climate regimes. These efforts include better monitoring of changes in water temperature, water volumes, water courses, currents, instream flows and water quality for fish needs, distribution and duration of winter ice, increased efforts to prevent/control invasive species, changes to terrestrial conditions and species distribution and behavior, new population survey and monitoring techniques, and studies on the effect of climate change on wildfires.15 15 Clark, R., A. Ott, M. Rabe, D. Vincent-Lang, and D. Woodby, 2010. The Effects of a Changing Climate on Key Habitats in Alaska. Alaska Department of Fish and Game.	The BLM coordinated with cooperating agencies commensurate with each agency's recognized jurisdiction or expertise. In areas where the State of Alaska has clear jurisdiction, such as wildlife populations, the BLM has worked closely with that State agency throughout the planning process. The BLM will continue to work with the State of Alaska as the RMP/EIS planning process moves forward. Specifying monitoring requirements is not a planning level decision and thus can be developed at the implementation level with input from the State of Alaska.
Magee	Susan	State Of Alaska	None	165	23	Wildlife	208.0700.00	As noted, the concept of connectivity can be appropriate when applied according to scientific principles under applicable circumstances. We question the application of connectivity corridor theory as laid out in the plan. Given BLM's statutory direction to "manage on the basis of multiple use and sustained yield," (FLPMA Section 102(7)) a mitigation management approach that responds when species or resources demonstrate stress or impacts to viability yet supports responsible resource use is more appropriate. The draft RMP/EIS also fails to explain how connectivity corridors and benchmarks will be measurable resource values and how the sustained yield principal applies to landscape resilience, connectivity, and adaptability (see page G-3).	As described in **Appendix G**, Adaptive Management Framework, the connectivity corridors were developed using the best available data. BLM's FLPMA mandate does not preclude management of connectivity corridors. Development of measurable resource values is not an RMP-level decision and instead will be developed at the implementation stage.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Magee	Susan	State Of Alaska	None	165	24	Wildlife	208.0700.00	connectivity corridors are currently a focal point in conservation planning, including at the national level. While BLM has no specific guidance laying out management practices for implementing connectivity corridors, the Secretary of the Interior signed Secretarial Order (SO) 3362 "Improving Habitat Quality in Western Big Game Winter Range and Mitigation Corridors" in 2018. Alaska is not included as a participating state (participating states include Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming). However, the State of Alaska is involved with the Western Association of Fish and Wildlife Agencies (WAFWA) working group on migration/telemetry issues that resulted from SO 3362. DOI's August 2020 Implementation Progress Report for SO 3362 stresses the importance of DOI agencies developing collective partnerships with states and recognizing state authority to manage wildlife, further illustrating that ADF&G should have been an active participant in the development of the proposed adaptive management strategy (the lack of inclusion also violates ADF&G's Master Memorandum of Understanding (MMOU) with BLM). We also question whether using theoretical and yet unproven methodologies across a vast landscape, i.e., those employed by Magness et al. and BEACONs, is prudent.16 16 Magness, D.R., A.L. Sesser, and T. Hammond. 2018. Using topographic geodiversity to connect conservation lands in the Central Yukon, Alaska. Landscape Ecology, 33: 547-56. It appears BLM has reached a pre-decisional determination regarding the need for connectivity corridors in the draft RMP/EIS as BLM incorporates them into every proposed alternative. Implementing corridors to link CSUs is not a valid reason to implement connectivity corridors. At every review opportunity during the planning process we expressed concerns that the model used to determine connectivity corridors does not incorporate an animal component. Connectivity corridors, at some level, must have an animal component and BLM does not provide that level of supporting information in the draft RMP/EIS. The usefulness of a model that does not incorporate an actual animal input has not been empirically established. Generic model generated probabilities are being allowed to overrule on-the-ground observational data on the premise that the corridors based on geographic features are being developed in a generic fashion to allow for ecosystems supportive of corridors and ecoregion changes over time which will inevitably allow for wildlife movement over time with no supporting evidence this will be the case. Using a model that only connects similar enduring geographic features/land facets that, in general, track river corridors and as such do not impede wildlife movement, the BEACONs/Magness, et. al. model fails to consider important wildlife behaviors, such as the tendency of caribou to move to higher elevations in pursuit of lichen as opposed to moving along river corridors, or that moose meander across the landscape and do not have a typical migratory pattern. Until an animal component has been added to the modeling, it is too early to designate corridors. Additionally, BLM considered the amount of priority wildlife species habitat as one of three ranking criteria (fundamental benchmark properties and resilience to climate change are the others) for selecting benchmarks in the planning area but failed to identify what criteria was used in identifying the priority species, what habitat is important for them, what increasing pressures they are facing, how their viability is threatened, and how the connectivity corridors address their current and future habitat needs in the planning area. BLM also failed to consult with ADF&G on the appropriateness of the selected species. Inappropriate species selection for impact assessment could artificially maximize the possible application of corridor designations throughout the CY planning area. This is also contrary to Secretary Salazar's stated commitment to work with the State to consider further modification of PLO 5150 and his position that the fulfillment of the State of Alaska's land entitlement was a top priority. Again, we question why the State's wildlife management agency was left out of cooperation opportunities	As described in **Appendix G**, Adaptive Management Framework, the connectivity corridors were developed using the best available data. Political boundaries were not the driver of these corridors, though the federal CSUs are inherently conservation-oriented and thus provide assurances for habitat connectivity. As stated in **Appendix G**, "It is important to recognize that landscape connectivity corridors are landscape management features, not wildlife management features. The intent is not to capture currently used migration corridors, but to sustain resilience and capacity for adaptability in response to change."
Magee	Susan	State Of Alaska	None	165	25	Wildlife	208.0700.00	The effects analysis in the draft plan/EIS also does not discuss the social and economic impacts that the designation of connectivity corridors and benchmarks (on BLM lands) and related restrictions will have on the State of Alaska. The effects analysis also fails to include a discussion of the effects these concepts will have on the ADF&G's ability to manage fish and wildlife resources. Further, the plan's discussion of the proposed adaptive management strategies is poorly laid out and confusing at best. The plan spreads the description of the adaptive management concepts, the involved acreages, and the associated maps throughout different sections of the plan, making it difficult for even experienced agency staff familiar with the planning area and the issues, let alone the general public, to locate related information and subsequently provide meaningful comments. The general description of adaptive management makes overarching reference to these concepts in Chapter 1 (page 1-7). The concepts are then referenced separately in the description of the alternatives in Chapter 2 (pages 2-2 through 2-4). There is then no reference to these areas or affected acreage information in the Quantitative Summary of Alternatives (Table 2-1, page 2-5) or any of the tables that describe proposed management (Tables 2-2 through 2-27). Similarly, the maps of these areas and corridors are not located in the map section of the plan (Appendix A) but instead are found in Appendix G (Maps G-1 through G-3). The management direction that applies to these vast areas is also not found in the body of the document but rather an appendix (Appendix F). The adaptive management strategy proposed in the draft RMP/EIS indicates in Alternatives B and C1 that benchmarks are required to establish quantitative planning objectives, to monitor the effectiveness of management decisions, and to inform adaptive management strategies. Despite this, Appendix G causes confusion to the reader by indicating that connectivity corridor and benchmark components proposed for adaptive management are both necessary for implementation of the adaptive management strategy and yet also simultaneously indicates each can function independently of one another by the omission of benchmarks from Alternatives C2 and D. Little information is provided to support either application. Adaptive management should serve as a flexible tool to aid in informing BLM's management decisions over time under changing conditions. If BLM moves forward with some form of adaptive management, it is critical that BLM follow existing DOI guidance18 and identify what specific goal(s) it hopes to obtain from the adaptive management as well as outline what monitoring procedures will be used to detect changes in the planning area. 18"Adaptive Management; The U.S. Department of Interior Technical Guide. 2009 edition."	Social and economic impacts are analyzed in Section 3.5 of the RMP/EIS. The ADFG has jurisdiction over wildlife management and BLM management would not impede that authority. Adaptive management sufficiently described in Appendix G and follows existing DOI and BLM guidance. Monitoring requirements are not a planning-level decision and would be developed at the implementation stage.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Magee	Susan	State Of Alaska	None	165	37	Wildlife	208.0700.00	Fish and Wildlife Management Authority Issues: o Need for recognition of the State's role in fish and wildlife management, as well as a commitment by BLM to cooperate with ADF&G on matters related to fish and wildlife resources and uses. o Failure to recognize both the interplay between federal and state management authorities as well as the nexus between the management of habitat and people in support of fish and game and the management of the fish and game itself. o Draft RMP/EIS indicates BLM has species management objectives (pg. 2-22); ADF&G manages fish and wildlife species on all lands in the State of Alaska. * Resolution: o Final RMP should recognize existing State fish and wildlife management is currently in effect and will continue, particularly regarding the Dalton Highway Corridor and PLO 5150 lands. o Proposed final RMP should reflect that wildlife habitat are managed to contribute to State species management objectives. o Final proposed RMP should recognize BLM commitments with ADF&G per their MMOU and clearly identify how BLM will coordinate management activities with ADF&G. o Final proposed RMP should clearly identify that BLM will avoid engagement in wildlife allocation issues. * Discussion: The BLM, as the manager of the planning area's public lands, has a broad responsibility to the public to maintain or improve habitat for fisheries and wildlife. The responsibility for managing fisheries and wildlife itself, as compared to habitat, traditionally rests with individual States. In Alaska, this responsibility was so integral in its desire for statehood, that management responsibility was enshrined in the State Constitution. ADF&G is the primary agency responsible for management of fish and wildlife on all lands in Alaska regardless of ownership. While a few exceptions to this management responsibility exist, e.g., marine mammals, migratory birds, and the federally listed threatened and endangered (T/E) species that are controlled by specific federal laws, there are no marine mammals nor T/E species on BLM-managed lands in the CY planning area. ADF&G also manages certain habitat matters through the Habitat Section; manages the State subsistence program through the Divisions of Subsistence, Wildlife, and Commercial Fisheries; and manages a USFWS approved raptor program. BLM committed to recognizing the above areas of responsibilities in the MMOU it has with ADF&G: ADF&G is responsible for the management of all game populations…ADF&G management is based on the sustained yield concept and while the effects of random events such as severe winters cannot be discounted, ADF&G management, through the Boards of Fish and Game would continue to manage to ensure sufficient game is available for resident hunts. Despite the MMOU agreement having been in place since 1983, Section 1.5 of the draft RMP/EIS titled "Collaboration and Coordination" fails to clearly recognize ADF&G as the primary manager of fish and game populations on all lands throughout the state in the manner outlined in the MMOU. For example, despite acknowledgement by the MMOU, the draft RMP/EIS still notes under bullet 4 of Section 1.1.5 that "BLM will consider [emphasis added] ADF&G objectives in decisions related to wildlife management." rather than adhere to them. Appendix M also does not include the ADF&G statute or regulations in their listing of resource-specific legal and regulatory constraints for wildlife, even though the ADF&G statute and regulation apply on federal lands. Statements in the draft RMP/EIS continue to erroneously imply BLM manages wildlife and fisheries populations, e.g., on page 2-22, Table 2-4 "Wildlife," BLM has listed goals to: * "Meet BLM and Alaska Department of Fish and Game species management objectives [emphasis added]." This BLM goal directly addresses wildlife management despite the direction found in various agency guidance documents including BLM Manual 6500.07(C) which clarifies BLM's role as the habitat manager and the State's role as the wildlife manager, except in the aforementioned special cases (e.g., endangered species). The use of the term "distribution" as noted in the following goal is not found in any BLM authorities, policy or guidance documents: * "Manage wildlife habitat to ensure self-	Section 1.6 of the RMP/EIS has been revised to better acknowledge ADFG's fish and wildlife management authority and coordination between BLM and ADFG.
Magee	Susan	State Of Alaska	None	165	39	Wildlife	208.0700.00	Priority Species * Issues: o No analysis provided to demonstrate how or why certain priority species were identified for the Central Yukon Planning Area. o No desired outcomes for these priority species are identified in the draft RMP/EIS. o BLM failed to coordinate with ADF&G while designating these species as priority species, in determining what specific management measures are needed for their habitat, or what the desired outcomes are for these species. o ADF&G staff are unaware of concerns regarding moose habitat in the narrow band of BLM-managed lands extending toward Venetie, including any concerns that necessitate the creation of ROW avoidance areas. o No discussion as to how the priority species are related to the proposed adaptive management plan. * Resolution: o Work with ADF&G prior to the release of the proposed final RMP/EIS to determine appropriateness of these priority species designations and identify desired outcomes. * Discussion: BLM identifies Golden eagle, moose, caribou, Dall sheep, and beaver as priority species for impact assessment in the planning area. No discussion is provided in the draft RMP/EIS or earlier planning documents to indicate how these species were determined as priority species in the planning area. BLM Handbook 1601 states that BLM can "[d]esignate priority species and habitats, in addition to special status species for fish or wildlife species recognized as significant for at least one factor, such as density, diversity, size, public interest, remnant character, or age." If designated, Handbook 1601 also states, the draft RMP/EIS should "identify desired outcomes using BLM strategic plans, state agency strategic plans, and other similar sources." The draft RMP/EIS does not detail desired outcomes for the priority species or provide information about any attempts by BLM to provide consistency with state management. To provide the best outcome for the species, the designations need to be done "working in close coordination with state wildlife agencies and drawing on state comprehensive wildlife conservation strategies" (Handbook 1601). Specific measures designed to manage habitat for special status species should also be done in coordination with state wildlife agencies. We are not aware of this having occurred prior to the release of this draft RMP/EIS. The draft RMP/EIS also fails to identify the interplay between the identification of priority species and their relationship to BLM's proposed adaptive management strategy.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM considers reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives, including those related to priority species as shown in Table 2-4 of the RMP/EIS. As a result, Alternatives A, B, C1, C2, and D were sufficiently analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS. The BLM will continue to work with ADFG through the NEPA process and during RMP implementation regarding wildlife and habitat management.
Magee	Susan	State Of Alaska	None	165	48	Wildlife	208.0700.00	Dall Sheep * Issues: o Inadequate information to support 160-acre non-use areas around known mineral licks. o Inadequate information to support aircraft landing and flight ceiling restrictions. o Appendix I indicates BLM is safeguarding the highest priority Dall sheep habitat with this management plan to expand hunting opportunities in accordance with Secretarial Order No. 3362, ADF&G biologists disagree with the approach outlined in Appendix I. o Inadequate information to support proposed intent, designated management areas and proposed management actions. o Inadequate consultation with ADF&G. * Resolution: o Adopt ADF&G recommended ACECs designated to protect discrete areas of Dall sheep habitat with targeted special management for collaborative case-by-case review by BLM and ADF&G of development proposals within the ACECs. o Remove 160-acre non-use areas around mineral licks from selected alternative. o Remove limits on aircraft landings and flight ceiling restrictions from selected alternative. o Provide information on how the proposed Dall sheep and caribou management expands hunting opportunities. o Exclude hunters from any restrictions on "human disturbances." o Remove motorized noise limits. o Carry out consultation with ADF&G in accordance with MMOU. * Discussion: Mineral Licks Appendix I states that BLM will, in an effort to expand big-game hunting by improving priority habitats, protect the known naturally occurring mineral sources (licks) for Dall sheep. We do not support the proposed blanket 160-acre non-use area around known mineral licks. As the wildlife manager, it is our determination that there is not adequate information to establish core lambing areas relative to the larger Brooks Range populations. Aircraft Restrictions We do not support the proposed aircraft landing or flight ceiling restrictions; we have not identified any areas where that aircraft restrictions are needed to protect Dall sheep populations. In addition, as airplane use is a method of access allowed by Congress within CSUs, it is incongruous for BLM to restrict airplane landings on similarly vast, roadless areas managed for multiple use. Restrictions on Hunters The discussion of the data presented in the draft RMP/EIS fails to support the conclusion it draws. It is unclear how BLM determined the management techniques found in Appendix I, for "Disturbance Limits" and "Noise Restrictions" (see page I-3). It is also unclear how BLM determined the following restrictions: "Manage permitted human disturbances, whether temporary or permanent, so they cover less than 5 percent of [Dall Sheep Habitat Areas] DSHAs and 15 percent of [Dall Sheep Movement Corridors] DSMCs." The primary temporary human activities in many of these areas are sheep hunters in the fall. We reiterate the request of our March 24, 2017 Preliminary Alternative Concepts review letter requesting BLM explain the specific management concerns regarding mineral licks and how the proposed restrictions will address these concerns, improve habitat, and expand hunting: Most human use near mineral licks occurs primarily from Aug 1- Sept 20 during the general Dall sheep hunting seasons. ADF&G biologists maintain human disturbance likely has little biological effect on sheep during the fall because adults are in prime condition and lambs are fully mobile. Like other big game hunting seasons that occur during the fall, hunter disturbance to sheep during fall, in general and specifically near sheep mineral licks, has little or no biological impacts. Dall sheep are the least vulnerable to disturbance during this time of year. To demonstrate a need for restrictions related to mineral licks that affect hunter access, BLM needs to provide data to demonstrate how sheep are being significantly affected by low elevation disturbance to mineral licks from hunters during this period (B. Wendling, ADF&G-sheep researcher-personal communication). As no additional information was provided in this draft RMP/EIS, as well as contrary biological data we possess, we request that hunters be excluded from the "human disturbance" restrictions stated in the RMP/DEIS. Noise Restrictions The draft RMP/EIS does not provide evidence supporting a need for the proposed 50 dBA limit for motorized noise: "Motorized noise would	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM considers reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives, including those related to Dall sheep. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options for Dall sheep management including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Magee	Susan	State Of Alaska	None	165	49	Wildlife	208.0700.00	Priority Caribou Habitat * Issue: o Management under Appendix I does not clearly identify any actual management and instead merely briefly summarizes some information on the Galena Mountain, Ray Mountain, and Hodzana Hills herds and directs readers back to the proposed alternatives. * Resolution: o If BLM moves forward with caribou management under Appendix I, we request a management program be cooperatively designed with ADF&G prior to release of the proposed final RMP/EIS. o Maintain the existing Galena Mountain ACEC designated under Alternative A as specified above with the special management as proposed. * Discussion: In our previous cooperator review comments, ADF&G recommended only the Galena Mountain Caribou ACEC be carried forward for its critical habitat. ADF&G maintains this position by proposing BLM implement a special management prescription that calls for case-by-case mitigation assessments of proposed development activities in coordination with ADF&G, which will provide suitable caribou habitat protections. No new critical issues were identified in the draft RMP/EIS to indicate additional management actions are necessary; therefore, we do not support new or expanded ACECs for caribou habitat. When discussing core caribou habitat, the draft RMP/EIS notes the lack of need for additional ACECs: "Aside from allocation decisions described and proposed above [for core caribou habitat], these areas do not require [emphasis added] extensive special management" (page I-8).	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. The CEQ regulations (40 CFR 1502.1) require that the BLM considers reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives, including those related to caribou. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options for caribou management including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS. The BLM will continue to work with ADFG throughout preparation of the RMP and through implementation, including development of a management program to occur after the planning process is completed.
Magee	Susan	State Of Alaska	None	165	58	Wildlife	208.0700.00	Revise SOPs relating to species management to require consultation with ADF&G area biologists (e.g., SOP WILD-9, WILD-10, WILD-11, WILD-12).	An additional SOP has been added stating "Consult with ADFG area biologists as appropriate to ensure consistency with species management required by the state."
Heyano	Nina	Tozitna Limited	None	167	10	Wildlife	208.0700.00	Wildlife migration corridors must be established and protected across varying ownerships; and a process determined for their changing patterns to be accommodated.	Wildlife migration has been incorporated into the action alternatives in Table 2.19. The language in the management action allows for changing patterns to be accommodated. However, the BLM will only make decisions on lands that fall under BLM's jurisdiction (including subsurface minerals) and thus cannot implement management measures in wildlife migration areas on other jurisdictions.
Cambell	Bruce	No organization name	None	174	8	Wildlife	208.0700.00	There should have been more thorough analysis of the likely impacts of the offered alternatives on hundreds of migratory bird species such as Fox Sparrows and Snow Buntings, and many more on the Audubon Society's watchlist.	Management actions for general wildlife, general species of special concern, water, fish, and riparian vegetation, and vegetation as shown in Tables 2-4, 2-5, 2-2, and 2-14, respectively, would be sufficient to protect the additional avian species of concern mentioned by the commenter. Impacts described for wildlife in Section 3.2.7 would include impacts on these species, even if they are not specifically mentioned.
Cambell	Bruce	No organization name	None	175	1	Wildlife	208.0700.00	Also I forgot to mention muskoxen and their need for habitat in part one of my comments. In peering further at a map on the URL above, I note that BLM lands can be particularly instrumental in offering decent width biological corridors to get, for instance, from the Gates of the Arctic Nat'l Park and Preserve to ANWR. There is about a ten mile area where those two jurisdictions are fairly close, while another 15 or so miles just to the south the jurisdictions are fairly close but not as close. Other key biological corridors which need attention to be sure to protect would include connections across a larger swath of BLM land to connect the Kanuti Nat'l Wildlife Refuge across the Dalton Hwy. to the Yukon Flats Nat'l Wildlife Refuge.	Connectivity corridors and their proposed management are described in **Appendix G** of the RMP/EIS. In **Appendix G**, the BLM explains "It is important to recognize that landscape connectivity corridors are landscape management features, not wildlife management features. The intent is not to capture currently used migration corridors, but to sustain resilience and capacity for adaptability in response to change." As such, while the connectivity corridors cannot reflect habitat needs for all individual species, they would maximize connectivity while achieving landscape conservation goals on lands managed for multiple uses.
Mannix	Jacob	Backcountry Hunters & Anglers	None	185	17	Wildlife	208.0700.00	Caribou Alaska BHA supports the identification of Core Caribou Ranges for the Galena and Ray Mountain Herds in Alternative C1 and ask that these areas be included in the final RMP and expanded to include Core Caribou Range for the Hodzana Herd. Alaska BHA would also like to see additional conservation protections applied to all three small caribou herds in the final RMP such as, protections for calving seasons, ROW avoidance or exclusion and a reduction of acreage open to mineral location. We would also ask that the BLM consider the impacts of mining activity and associated development on caribou: * avoidance of mines by caribou up to 4 km away (USBLM Ambler DEIS, pg. H-51) * displacement from disturbance 9.6 km (USBLM Ambler DEIS pg. 3-74) * displacement from roads up to 15 km (Plante et al. 2018) * avoidance of mines 11-14 km (Boulanger et al. 2012) * avoidance by caribou around mines 20-23 km (Plante et al. 2018) The BLM should disallow or implement strict permit stipulations on mineral development within Core Caribou Ranges. If the BLM does not disallow mineral development, then the stipulations on surface activity should be timed to minimize impacts on caribou. Core Caribou Ranges should also be applied to the Western Arctic Caribou Herd, Central Arctic and Porcupine Herds. Although these caribou herds ranges extend outside of the Central Yukon Planning Area, the BLM should consider the affect that this RMP will have on the management of the caribou herds. The BLM should coordinate with other federal and state management agencies and landholders to ensure cooperative management of caribou is achieved. To summarize, Alaska BHA recommends that the final RMP include Core Caribou Ranges for all caribou herds that use the Central Yukon Planning Area including the Hodzana Hills Herd and that the above-mentioned additional protections be included.	The BLM considered additional protections for all three caribou herds under Alternative B. Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Mannix	Jacob	Backcountry Hunters & Anglers	None	185	18	Wildlife	208.0700.00	Dall Sheep Alaska BHA supports the BLM's retention of sheep specific ACEC's in Alternative B. We encourage the BLM to include these ACEC's into the final RMP as well as the expansion of ACEC boundaries as noted on pg. 60 of the Analysis of the Management Situation: "Snowden Mountain ACEC should be extended to encompass the headwaters of Matthews Creek, an area that all collared sheep in that subpopulation used frequently… the expansion of the Poss Mountain ACEC…" Alaska BHA also supports the sheep management areas in Alternative C1, Dall Sheep Habitat Areas, Dall Sheep Movement Corridors and Dall Sheep Study Areas as suitable protections for Dall Sheep. Should the sheep specific ACEC's not be included in the final RMP, we would support the inclusion of these sheep management areas with the recommendation that the disturbance limits be strengthened Finally, as stated in the Draft RMP: "Dall sheep habitat is primarily in PLO 5150, which becomes State land with valid State of Alaska selections following the BLM's revocation of this PLO; therefore, a full or partial revocation of PLO 5150 could indirectly impact Dall sheep, depending on how the State handles selections; it is unknown how the State would manage the lands…a full or partial revocation of PLO 5150 could impact Dall sheep if other protective mitigation measures are not enacted. SOPs for Dall sheep would reduce or minimize impacts of some activities on Dall sheep. These include recommending low-profile road and facility designs, ROW avoidance and traffic controls, and clustering facilities as closely together as possible." (p. 3-83) This statement reflects a large degree of uncertainty as to the future of Dall Sheep Habitat within PLO 5150, it is not known how the state would manage the lands. Again, Alaska BHA strongly urges the BLM to remove the revocation of PLO 5150 from the proposed RMP and maintain the land in federal ownership in the final RMP. In summary, Caribou and Dall Sheep are both incredibly important animals within the planning area. They provide opportunity for subsistence and sport hunting and enhance other recreational activities. Alaska BHA appreciates the efforts that the BLM has undertaken to include protections for Caribou and Dall Sheep in some of the Alternatives. We urge the BLM to include Core Caribou Ranges for all Caribou herds that use the Central Yukon Planning Area, including the Hodzana Hills Herd, into the final RMP. In regard to Dall Sheep, Alaska BHA supports the sheep specific ACEC's in Alternative B and recognizes the sheep management areas as suitable protections should ACEC's not be included. Lastly, we oppose the revocation of PLO 5150 as there is a large degree of uncertainty about the future of sheep habitat management under a change of land ownership.	Any potential actions that occur on lands if the PLOs are revoked are outside the jurisdiction of the BLM and would be speculative to analyze in the RMP/EIS. The BLM will only make decisions on lands that fall under BLM's jurisdiction (including subsurface minerals) and will implement management for Dall sheep while under BLM authority.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Mannix	Jacob	Backcountry Hunters & Anglers	None	185	29	Wildlife	208.0700.00	Alaska BHA supports the identification of Core Caribou Ranges for the Galena and Ray Mountain Herds in Alternative C1 and ask that these areas be included in the final RMP and expanded to include Core Caribou Range for the Hodzana Herd. Alaska BHA would also like to see additional conservation protections applied to all three small caribou herds in the final RMP such as, protections for calving seasons, ROW avoidance or exclusion and a reduction of acreage open to mineral location. We would also ask that the BLM consider the impacts of mining activity and associated development on caribou: * avoidance of mines by caribou up to 4 km away (USBLM Ambler DEIS, pg. H-51) * displacement from disturbance 9.6 km (USBLM Ambler DEIS pg. 3-74) * displacement from roads up to 15 km (Plante et al. 2018) * avoidance of mines 11-14 km (Boulanger et al. 2012) * avoidance by caribou around mines 20-23 km (Plante et al. 2018)	The BLM considered additional protections for all three caribou herds under Alternative B. Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Mannix	Jacob	Backcountry Hunters & Anglers	None	185	30	Wildlife	208.0700.00	The BLM should disallow or implement strict permit stipulations on mineral development within Core Caribou Ranges. If the BLM does not disallow mineral development, then the stipulations on surface activity should be timed to minimize impacts on caribou. Core Caribou Ranges should also be applied to the Western Arctic Caribou Herd, Central Arctic and Porcupine Herds. Although these caribou herds ranges extend outside of the Central Yukon Planning Area, the BLM should consider the affect that this RMP will have on the management of the caribou herds. The BLM should coordinate with other federal and state management agencies and landholders to ensure cooperative management of caribou is achieved.	The BLM has included a range of alternatives related to caribou management that would meet the wildlife goals. These include management for potentially affected herds in the planning area. The additional requested herds for consideration are outside of the planning area and thus management of BLM-administered lands has limited influence on those herds.
Mannix	Jacob	Backcountry Hunters & Anglers	None	185	31	Wildlife	208.0700.00	"Dall sheep habitat is primarily in PLO 5150, which becomes State land with valid State of Alaska selections following the BLM's revocation of this PLO; therefore, a full or partial revocation of PLO 5150 could indirectly impact Dall sheep, depending on how the State handles selections; it is unknown how the State would manage the lands…a full or partial revocation of PLO 5150 could impact Dall sheep if other protective mitigation measures are not enacted. SOPs for Dall sheep would reduce or minimize impacts of some activities on Dall sheep. These include recommending low-profile road and facility designs, ROW avoidance and traffic controls, and clustering facilities as closely together as possible." (p. 3-83) This statement reflects a large degree of uncertainty as to the future of Dall Sheep Habitat within PLO 5150, it is not known how the state would manage the lands. Again, Alaska BHA strongly urges the BLM to remove the revocation of PLO 5150 from the proposed RMP and maintain the land in federal ownership in the final RMP.	While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). The no action alternative does not include revocation of PLO 5150. Since components of several alternatives may be chosen, the Alternative A management to continue PLO 5150 could be brought forward; this would be described in the Record of Decision for the RMP/EIS.
Kriska	David	Stevens Village Tribal Council / Dinyea Corporation	None	189	2	Wildlife	208.0700.00	Increased environmental impacts: The Stevens Village Traditional lands, the Yukon River, Dall River, Ray River, and all tributaries, drainages and wetlands are considered "areas of environmental concern" to our people. Under the preferred BLM Alternative C-2, lands currently limited to mineral entry would be available for selection and conveyance by the state of Alaska. Our concerns include increased access, increased hunting & fishing pressure, destruction of critical habitat, and increased erosion in tributaries potentially causing chemical changes in water critical to fish species to name just a few.	Sections 3.2.6 and 3.2.7 have been revised to include the effects of increased hunting and fishing pressure. The other concerns stated by the commenter are analyzed in these sections in the RMP/EIS. The no action alternative does not include revocation of PLO 5150. Since components of several alternatives may be chosen, the Alternative A management to continue PLO 5150 could be brought forward; this would be described in the Record of Decision for the RMP/EIS.
Brower	Harry	North Slope Borough	None	190	3	Wildlife	208.0700.00	Appendix I describes measures contained in the various Plan alternatives to manage Dall Sheep and Caribou habitat. Alternatives C2 and D do not propose any special management for Dall sheep habitat, despite identification in the document of certain areas critical to the region's populations, and should be rejected for that reason. The measures to be implemented under Alternative C1 as described on page I-3 would seem to present clear definitional and enforcement issues. The alternative envisions a management scheme under which discretionary disturbances or activities are subject to area percentage caps within certain sheep habitat and movement areas.	While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives related to Dall sheep and caribou. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Lavin	Pat	Defenders Of Wildlife	None	193	10	Wildlife	208.0700.00	BLM's wildlife habitat management goals and metrics are reasonably straightforward but the preferred alternative seems ill-suited to achieve them. One shortcoming is the absence of a predator indicator species to help assess management efforts. Also, the preferred alternative fails at the outset to protect key habitat elements and ensure viable wildlife populations, as illustrated by the example of Dall's sheep. It also fails to promote habitat connectivity and spatial distribution more generally, and would eliminate the agency's best means of doing so.	While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives related to wildlife. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Lavin	Pat	Defenders Of Wildlife	None	193	11	Wildlife	208.0700.00	To achieve these goals, BLM should ensure that essential habitat elements for species, populations, and communities are present and available to the extent that they are consistent with the potential/capability of the landscape. Potential success indicators that ensure this objective is being met include: plant community composition and productivity, animal community composition and productivity, habitat elements, spatial distribution of habitat, habitat connectivity, population stability and resilience, and disturbance regimes such as wildland fire history.16 16 AMS at 53. In general, the DEIS fails to closely assess the management alternatives in terms of their ability or likelihood to achieve this success. Notably, the wildlife impacts analysis is mainly limited to those on five indicator species: golden eagle, moose, caribou, Dall sheep and beaver. BLM should consider a broader range of wildlife, including at least one predator, to better understand and monitor ecosystem function (animal community composition and productivity; population stability and resilience) and to assist in identifying differences among the alternatives. It is particularly important for BLM to measure the success indicators listed above with regard to predators in the planning area, given the importance of apex predators in functioning ecosystems and the state's general management philosophy of minimizing predators in an attempt to maximize ungulates.17 ADFG has greatly liberalized hunting regulations for bears across the state over the last twenty years, including on lands in the planning area.18 BLM should include brown bears or perhaps gray wolf as an indicator predator species.	Priority species are defined in the glossary as "A species in the planning area that is recognized as significant for at least one factor, such as density, diversity, size, public interest, remnant character, or age (BLM Handbook 1601)." The BLM must limit its list of priority species to meet this definition and from a practical standpoint, ability and capacity to manage for these habitats. As such, the BLM has kept the four priority species. Gray wolf and brown bear were already identified in Section 3.2.7 as other important species.
Lavin	Pat	Defenders Of Wildlife	None	193	12	Wildlife	208.0700.00	Currently, five designated ACECs help protect Dall sheep habitat within the Dalton Highway corridor but BLM proposes to eliminate all of them, notwithstanding its own warning about the potential population-level impacts of failing to delineate priority habitat. Those ACECs cover 40 percent of the Dall Sheep Habitat Area, 20 percent of Dall Sheep Movement Corridor, and 8 percent of Dall Sheep Study Area in the decision area.20 20 DEIS at 3-80-81. The primary RFD activities (locatable minerals, ROWs, and mineral materials) in Dall sheep habitat in the decision area would result in direct loss and degradation of sheep habitat. Linear ROWs could disrupt sheep movements and result in habitat fragmentation. Aircraft traffic, especially helicopters, could result in disturbance and increased energetic costs to sheep.21 21 DEIS at 3-81. Proposed management actions addressed in BLM's Analysis of the Management Situation include restricting mineral entry and location in areas of high wildlife resource value, including withdrawal of eight mineral licks (160 acres each), portions of the Jim and Kanuti rivers and Prospect Creek floodplains, and southern portion of the Nigu-Iteriak ACEC. Rather than eliminating the ACECs and opening mineral entry across the planning area, BLM should retain PLOs and ACECs, modify them to capture and protect a greater percentage of key Dall sheep habitat, strengthening management of the ACECs as necessary or appropriate to do so.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen, including a component of an alternative that retains all PLOs and ACECs; these would be described in the Record of Decision for the RMP/EIS.
Lavin	Pat	Defenders Of Wildlife	None	193	13	Wildlife	208.0700.00	A review of the connectivity corridors that BLM identifies in the planning area and the PLO withdrawals indicates significant overlap between the two, such that retaining the withdrawals would appear to be a good way to retain the connectivity function. Significant corridors exist between serve to connect lands across the Dalton Highway corridor (connecting Arctic National Wildlife Refuge with Gates of the Arctic National Park and implicating PLO 5150); Kanuti National Wildlife Refuge with Yukon Flats and Koyukuk NWRs; (PLOs 5179, 5180, 5184); Koyukuk NWR with both Innoko and Nowitna NWRs (PLOs 5179, 5180, 5184, 5186); Innoko NWR with Nowitna NWR (PLO 5184); and Nowitna NWR with Denali National Park and Preserve (PLO 5173, 5179, 5180, 5184). Similarly, these and other important connectivity corridors can be protected by expanding the ROW exclusion and avoidance areas. The alternatives considered would not adequately avoid habitat fragmentation over the life of the plan. The agency should reduce the amount of acreage open to ROW development and retain federal jurisdiction over important wildlife connectivity corridors. This would also help ensure that wildlife can continue to move between highly valuable National Park Service and Fish and Wildlife Service lands.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen, including a component of an alternative that retains all PLOs and has reduced acreage open to ROW development; these would be described in the Record of Decision for the RMP/EIS. Connectivity corridors would be managed under all action alternatives as described in Appendix G of the Draft RMP/EIS.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	7	Wildlife	208.0700.00	SOP WILD-1 makes potential restrictions based on "known or suspected migration corridors or movement corridors". The BLM AO may require the development of an ecological land classification map (or similar instrument) of the development area as part of the permitting process. This is beyond the capacity of almost all small mining applicants. Applicants for a very large mining project could possibly do this, but they would likely also require an EIS and project-specific authorizations anyway so this requirement should not be in an RMP.	As described in **Appendix F** of the Draft RMP/EIS, SOP WILD-1 may not be applied for all projects: "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	8	Wildlife	208.0700.00	SOP Wild-1 addresses preventing raptors from nesting or using man-made structures such as power poles or cell towers. BLM regulated projects that have these structures is very minor compared to the statewide existence of all the similar public structures and this is another example of adding unnecessary issues to the RMP.	The range of alternatives, including SOPs, that were developed for the RMP/EIS address concerns raised during scoping. The BLM will only make decisions on lands that fall under BLM's jurisdiction. Any potential actions that occur on non-BLM lands are outside the jurisdiction of the BLM and would be speculative to analyze in the RMP/EIS.
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	9	Wildlife	208.0700.00	SOP WILD-7&8 involve buffers and seasonal time restrictions for nesting around eagles and migratory birds. BLM needs to be sensitive to seasonal operators having a very short operating season and so time restrictions and buffers should not be in an RMP but should be addressed at the permit level and kept as small as practical with the approval of the AO.	The BLM used the most recent and best information available that was relevant to developing the buffers and seasonal restrictions included in the SOPs. Additionally, the BLM consulted with, collected, and incorporated data from other agencies and sources, including scientific literature and field and district office data. Buffers and seasonal restrictions are appropriate to include in the RMP per the BLM Land Use Planning Handbook, **Appendix C**, which states "Identify actions and areawide use restrictions needed to achieve desired population and habitat conditions while maintaining a thriving natural ecological balance and multiple-use relationships."
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	10	Wildlife	208.0700.00	SOP WILD-10 concerns protecting special species habitat to enhance indigenous animal population or otherwise maintain "public land health" through avoidance of sensitive habitat. Public land health is an undefined term that could include almost anything. This stipulation should not be in the RMP.	The term "public land health" references back to the BLM's Technical Reference 1734-6, Interpreting Indicators of Rangeland Health.
Birch	Jerry	Taiga Mining Comapny, Inc	None	195	19	Wildlife	208.0700.00	SOP LANDSCAPE-1 The language in this section is dangerously inclusive and vague. It uses phrases that are not defined and could include anything within its language. The required mitigation may include among other things "seasonal or time restrictions on activities". This open-ended and vague stipulation should not be in an RMP.	SOP LANDSCAPE-1 is intended to provide the BLM the flexibility to protect connectivity corridors per the adaptive management framework in **Appendix G**. As described in **Appendix F** of the Draft RMP/EIS, SOP LANDSCAPE-1 may not be applied for all projects: "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
Shon Jodwalis	Lisa	No organization name	None	197	5	Wildlife	208.0700.00	Dall Sheep and Caribou throughout the planning area migrate seasonally and cross agency boundaries. Some populations (e.g. Ray Mountains Herd, Hodzana Herd) may be genetically or behaviorally distinct and require a different level of protection. Caribou migratory routes can change substantially and unpredictably, so that areas not currently considered within a herd's range can suddenly become important. Climate warming threatens their habitat due to wildfire, vegetation changes, and ice-on-snow events, so sufficient habitat, and protections for that habitat, are essential to ensure their survival throughout the Brooks Range and the North Slope. That would include protection for habitat that could be considered refugia should climate- or weather-related events diminish their current use areas. Hence, Dall Sheep and Caribou are two species that require more - not less - protection under ALL of the Alternatives.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public, including those related to Dall sheep and caribou.
Crockett	Deantha	Alaska Miners Association	None	199	13	Wildlife	208.0700.00	The proposed core caribou calving habitat restrictions (in Alternatives C-1 and C-2) are not needed or justified and will prevent exploration of the Ray Mountains area as a potential source for REE's and critical and strategic minerals. It is important to ensure this area has access and is open for mineral prospecting, location and future mining.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public, including caribou management. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen, including a component of an alternative that does not include the core caribou habitat restrictions; these would be described in the Record of Decision for the RMP/EIS.
Crockett	Deantha	Alaska Miners Association	None	199	14	Wildlife	208.0700.00	The proposed Dall Sheep Habitat Areas and Movement Corridors (in Alternative C-1) are not needed or justified and will prevent further exploration of areas known as potential sources of strategic and critical minerals.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen, including a component of an alternative that does not include the Dall sheep habitat areas and movement corridors; these would be described in the Record of Decision for the RMP/EIS.
Crockett	Deantha	Alaska Miners Association	None	199	35	Wildlife	208.0700.00	There should be no areas designated as core caribou calving habitat as proposed in Alternatives C-1 and C-2). The Ray Mountains core caribou calving area in Alternatives C1 and C2 covers 572,000 acres and the Galena Mountain core caribou calving area (also in C1 and C2) includes 174,000 for a combined total 746,000 acres. The RMP does not include an estimate of animals occupying the area, but we understand it is not a large population. As noted above, the Ray Mountains area is potentially a good source for REEs and critical and strategic minerals. It is important to maintain reasonable access to the area and keep it open for minerals prospecting, claim location and future mining. Development on BLM lands throughout the state has been minimal and it is unlikely that this will change. Special restrictions for calving or other such areas are not warranted or justified. The lands covered by core caribou habitat restrictions have for the most part been segregated by previous State selections and some Doyon Corporation selections. The BLM should not attempt to reserve or plan for another use while the valid segregations are in place. Ultimately, the land and mineral estate will be transferred to these parties to manage as they deem appropriate. Restrictions to the use of mineral materials are proposed for a large area in the proposed core caribou area and beyond due to wet and poor soil conditions. Although portions of the area may be challenging to cross the designation was made without the benefit of detailed soils reconnaissance and testing. It is probable that, given the size and evidence of alluvial action, material sources are available and access roads or trails could be constructed the same as they have in many similar areas in Alaska.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public, including caribou management. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen, including a component of an alternative that does not include the core caribou habitat restrictions; these would be described in the Record of Decision for the RMP/EIS.
Crockett	Deantha	Alaska Miners Association	None	199	36	Wildlife	208.0700.00	There should be no areas designated as Dall Sheep Habitat Areas and Movement Corridors as proposed in Alternative C-1. Dall sheep habitat areas are primarily located in a narrow strip on either side of the Dalton Highway starting a short distance south of Coldfoot and continuing northerly for approximately 100 miles. The Dall sheep study area (DSSA) identifies several smaller areas of Dall sheep habitat (DSHA) and Dall sheep movement corridors (DSMCs). The DSSA occupies 361,300 acres, the DSHA 4,600 acres and the DSMC 163,000 acres. The acreage is the same for Alternatives C1 and C2. It is important to identify and maintain access ROWs along this corridor for current and future users. Development on BLM lands throughout the state has been minimal and it is unlikely that this will change. Special restrictions in DSHA and DSMCs are not warranted or justified. Under Alternative C1 for the DSHAs, the RMP proposes a two tired management system with BLM managing the inner corridor, which includes the Dalton Highway, and the State managing the outer corridor. This would likely cause confusion and problems with management. Alternative C2 would allow the State to acquire all the lands along the corridor.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public, including Dall sheep management. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen, including a component of an alternative that does not include the Dall sheep habitat areas and movement corridors; these would be described in the Record of Decision for the RMP/EIS.
Crockett	Deantha	Alaska Miners Association	None	199	40	Wildlife	208.0700.00	BLM should not use the Adaptive Management and BEACONS as described in Appendix F and G for alternatives B and C1. The BEACONS and related large areas in Connectivity Corridors gives land managers the ability to alter the decisions made in the final RMP with no public process, no public input and no NEPA process. It would allow land managers to make decisions inconsistent with this RMP. This could nullify the entire plan for areas designated as Connectivity Corridors as described in Appendix G for alternatives B and C-1. In addition, decisions for BLM multiple use lands should not be tied to management of adjacent Conservation System Units.	As described in BLM's NEPA Handbook, Section 1.5, "All actions approved or authorized by the BLM must conform to the existing land use plan." If a proposed action does not conform to the RMP, a plan amendment would be required to allow the action.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Crockett	Deantha	Alaska Miners Association	None	199	62	Wildlife	208.0700.00	F.2.5 Wildlife (WILD) SOP WILD-1 makes potential restrictions based on "known or suspected migration corridors or movement corridors". The BLM AO may require the development of an ecological land classification map (or similar instrument) of the development area as part of the permitting process. This is beyond the capacity of almost all small mining applicants. Applicants for a very large mining project could possibly do this, but they would likely also require an EIS and project-specific authorizations anyway and this requirement does not have to be in an RMP. This SOP should be deleted, or only required for large projects.	As described in **Appendix F** of the Draft RMP/EIS, SOP WILD-1 may not be applied for all projects: "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
Crockett	Deantha	Alaska Miners Association	None	199	63	Wildlife	208.0700.00	SOP WILD-2 concerns preventing raptors from nesting or using man-made structures such as power poles or cell towers. We believe the BLM regulated projects that have these structures are very minor compared to the statewide existence of all the similar public structures.	The range of alternatives, including SOPs, that were developed for the RMP/EIS address concerns raised during scoping. The BLM will only make decisions on lands that fall under BLM's jurisdiction. Any potential actions that occur on non-BLM lands are outside the jurisdiction of the BLM and would be speculative to analyze in the RMP/EIS.
Crockett	Deantha	Alaska Miners Association	None	199	64	Wildlife	208.0700.00	SOP WILD-7&8 involve buffers and seasonal time restrictions for nesting around eagles and migratory birds. BLM needs to be sensitive to seasonal operators having a very short operating season and so time restrictions and buffers should be kept as small as practical with the approval of the AO.	The BLM used the most recent and best information available that was relevant to developing the buffers and seasonal restrictions included in the SOPs. Additionally, the BLM consulted with, collected, and incorporated data from other agencies and sources, including scientific literature and field and district office data.
Crockett	Deantha	Alaska Miners Association	None	199	65	Wildlife	208.0700.00	SOP WILD-10 concerns protecting special species habitat to enhance indigenous animal population or otherwise maintain "public land health" through avoidance of sensitive habitat. Public land health is an undefined term that could include almost anything.	The term "public land health" references back to the BLM's Technical Reference 1734-6, Interpreting Indicators of Rangeland Health.
Crockett	Deantha	Alaska Miners Association	None	199	75	Wildlife	208.0700.00	F.2.15 Connectivity Corridors (LANDSCAPE) SOP LANDSCAPE-1 "Landscape connectivity corridors will be analyzed for all discretionary activities that disrupt habitat connectivity, cause habitat fragmentation, or present barriers or deterrents to wildlife movement. Such activities will be authorized in the corridors only when no other feasible alternative exists. In all cases, analysis of impacts for proposed activities in the corridors would include careful consideration of cumulative impacts on habitat connectivity." This language is dangerously inclusive and vague. It uses phrases that are not defined and could include anything within its language. The required mitigation may include among other things "seasonal or time restrictions on activities". This open-ended and vague stipulation should not be in a RMP.	SOP LANDSCAPE-1 is intended to provide the BLM the flexibility to protect connectivity corridors per the adaptive management framework in **Appendix G**. As described in **Appendix F** of the Draft RMP/EIS, SOP LANDSCAPE-1 may not be applied for all projects: "SOPs are considered during the site-specific analysis during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. If a particular SOP is demonstrated to be infeasible or not practicable for a specific activity or authorization, then exclusion or modification of that SOP, or deployment of an alternative SOP, may be considered, at the discretion of the Authorized Officer (AO)."
Crockett	Deantha	Alaska Miners Association	None	199	77	Wildlife	208.0700.00	F.3 Fluid Mineral Leasing On page F-21: BLM stipulates that motorized noise in a Dall sheep habitat area would not exceed 50 decibels which is about equivalent to a quiet office. Normal conversation is 60 decibels. This threshold is too low to allow most motorized uses as it could achieve that low of a noise level. On page F-22: Raptor nests not within 0.5 miles. No exploration, development, of facility construction from April 15 through August 15. This is an excessive distance buffer and a timing buffer of 4 months. For Golden Eagles, no occupancy or use allowed within 0.5 miles. This requirement should either be deleted or revised to allow for specific exemptions as part of project specific site conditions and authorizations.	The BLM used the most recent and best information available that was relevant to developing the buffers and seasonal restrictions included in the SOPs and fluid mineral leasing stipulations. Additionally, the BLM consulted with, collected, and incorporated data from other agencies and sources, including scientific literature and field and district office data.
Crockett	Deantha	Alaska Miners Association	None	199	78	Wildlife	208.0700.00	As we previously stated, BLM should not use the Adaptive Management and BEACONS as described in Appendix F and G for alternatives B and C1. The BEACONS and related large areas in Connectivity Corridors gives land managers the ability to alter the decisions made in the approved RMP with no public process, no public input and no NEPA process. It would allow land managers to make decisions inconsistent with this RMP. This could nullify the entire plan for areas designated as Connectivity Corridors. General Comments Regarding Appendix G. Appendix G is not written in a way to be understandable by the general public. As currently drafted, we question if, or how, a land manager making permitting decisions can use it in a meaningful way. The BEACONS) and the related large areas in Connectivity Corridors gives land managers the ability to alter the decisions made in an approved RMP with no public process, no public input and no NEPA process. It appears to allow land managers to make decisions inconsistent with this RMP. This essentially could nullify the entire plan for areas designated as Connectivity Corridors. In addition, under the description of the use of BEACONS and management of Connectivity Corridors in Alternative C1, it directs BLM managers to essentially defer to the managers of nearby Federal Conservation System Units (CSUs) when making decisions. This is contrary to the intent of ANILCA. BLM lands were excluded by the U.S. Congress from these CSUs specifically so they would not be managed the same as the CSUs. CSUs are not multiple use lands.	As described in BLM's NEPA Handbook, Section 1.5, "All actions approved or authorized by the BLM must conform to the existing land use plan." If a proposed action does not conform to the RMP, a plan amendment would be required to allow the action, which would initiate a public involvement process.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	22	Wildlife	208.0700.00	The final EIS/RMP should align with the BLM's goals and objectives for managing fish and wildlife in the planning area (DEIS, p. 2-22), which include but are not limited to: * Provide habitat of sufficient quantity, quality, and connectivity to allow for stable populations of wildlife, using such metrics as the average recruitment rate or as otherwise defined by the BLM, in collaboration with the Alaska Department of Fish and Game and the U.S. Fish and Wildlife Service. * Effectively avoid or minimize impacts on wildlife and wildlife habitat. * Apply mitigation measures that effectively protect wildlife and wildlife habitat.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives, including those related to fish and wildlife as shown in Tables 2-2 and 2-4, respectively, in the RMP/EIS. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS. Additionally, the resulting action alternatives offer a range of possible management approaches for responding to planning issues and concerns identified through public scoping. While the goals and objectives for wildlife are the same across alternatives, each alternative contains a discrete set of management actions and constitutes a separate RMP with the potential for different long-range outcomes and conditions related to fish and wildlife.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	23	Wildlife	208.0700.00	We support these objectives and the designation of moose, caribou, Dall sheep, and beaver as priority species for all alternatives. We would encourage the BLM to consider the inclusion of apex predators, such as grizzly bears, since these species play an important ecological role in adjacent conservation system units.	Priority species are defined in the glossary as "A species in the planning area that is recognized as significant for at least one factor, such as density, diversity, size, public interest, remnant character, or age (BLM Handbook 1601)." The BLM must limit its list of priority species to meet this definition and from a practical standpoint, ability and capacity to manage for these habitats. As such, the BLM has kept the four priority species, though grizzly bear has been added to Section 3.2.7 as another important species.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	30	Wildlife	208.0700.00	The 2016 Analysis of Management Situation (AMS) confirms the important role of caribou in the Central Yukon planning area: "Caribou in the planning area are an important subsistence resource. They can be abundant, but their movements are subject to high inter-annual variability, particularly in the periphery of their winter range. Many rural communities in the planning area are located in this outer range, and experience challenges associated with finding food substitutes for caribou in years when they are locally absent. Caribou are also important game species for non-local hunters" (AMS, p. 55). We appreciate that Alternative C1 allocates two Core Caribou Ranges for the Galena and Ray Mountain Herds. We support these areas, request that they be included in the proposed RMP, and ask the BLM to expand the areas to include Core Caribou Range for the Hodzana Herd. We recommend similar conservation safeguards for all three small caribou herds be adopted in the final RMP, such as ROW avoidance or exclusion, OHV restrictions during calving season, and reducing the acreage open to locatable mineral development.	While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives related to caribou. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.

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Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	31	Wildlife	208.0700.00	We also request that the BLM consider inclusion of Core Caribou Ranges for the northern caribou herds, namely the Western Arctic Caribou Herd (WACH), and also the Central Arctic and Porcupine Herds. The WACH is the largest caribou herd in the State of Alaska, with a full habitat range that spans more than 100 million acres. While most of that acreage is outside of the planning area, it is incumbent on the BLM to coordinate with other federal and state agencies, as well as other landholders and managers, to cooperatively manage the WACH across jurisdictional boundaries. The agency should also adopt allocations and management actions that conserve these habitats on BLM-administered lands.	The BLM has included a range of alternatives related to caribou management that would meet the wildlife goals. These include management for potentially affected herds in the planning area. The additional requested herds for consideration are outside of the planning area and thus management of BLM-administered lands has limited influence on those herds.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	32	Wildlife	208.0700.00	We urge the BLM adaptively manage all Core Caribou Ranges within the Central Yukon planning area based on an annual review of emerging data that may indicate changes in which lands caribou utilize during calving, migration, and wintering.	While BLM does not have the resources to adaptively manage core caribou ranges as requested by the commenter, the BLM could revise the core caribou ranges if needed with a plan amendment.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	33	Wildlife	208.0700.00	Additionally, we request that the BLM take steps to avoid and minimize mineral development and associated infrastructure development within these Core Caribou Ranges, given the scientific literature that documents a wide range of estimates of caribou displacement from disturbance related to mining. If the BLM does allow surface development within these areas, we recommend robust permitting processes with strict stipulations that require a plan that demonstrates how caribou habitat will not be negatively affected by development.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. While there are many possible alternatives or actions to manage core caribou ranges in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives. Management within core caribou ranges is presented in Table 2-4 and **Appendix I** of the Draft RMP/EIS. Components of several alternatives may be chosen, including those that may be more restrictive of mineral and infrastructure development in core caribou ranges; these would be described in the Record of Decision for the RMP/EIS.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	36	Wildlife	208.0700.00	We also support the three new special management areas to manage sheep habitat in Alternative C1: Dall Sheep Habitat Area, Dall Sheep Movement Corridor, and Dall Sheep Study Area (538,900 acres combined). While we appreciate that Appendix I details specific allocations and management actions for these new designations, we are concerned that some of those allocations and management actions may be inadequate. We recommend strengthening management actions such as disturbance limits, noise restrictions, and ROW allowances based on the best available science. The updated guidelines should then be included in the SOPs in Appendix F and reflected in the proposed and final RMPs.	The BLM used the most recent and best information available that was relevant to developing the management actions for Dall sheep included in the RMP. Additionally, the BLM consulted with, collected, and incorporated data from other agencies and sources, including scientific literature and field and district office data. The commenter did not provide specific studies to include, so no further science was considered in response to this comment.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	53	Wildlife	208.0700.00	The final EIS/RMP should align with the BLM's goals and objectives for managing fish and wildlife in the planning area (DEIS, p. 2-22), which include but are not limited to: * Provide habitat of sufficient quantity, quality, and connectivity to allow for stable populations of wildlife, using such metrics as the average recruitment rate or as otherwise defined by the BLM, in collaboration with the Alaska Department of Fish and Game and the U.S. Fish and Wildlife Service. * Effectively avoid or minimize impacts on wildlife and wildlife habitat. * Apply mitigation measures that effectively protect wildlife and wildlife habitat.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives, including those related to fish and wildlife as shown in Tables 2-2 and 2-4, respectively, in the RMP/EIS. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS. Additionally, the resulting action alternatives offer a range of possible management approaches for responding to planning issues and concerns identified through public scoping. While the goals and objectives for wildlife are the same across alternatives, each alternative contains a discrete set of management actions and constitutes a separate RMP with the potential for different long-range outcomes and conditions related to fish and wildlife.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	54	Wildlife	208.0700.00	We support these objectives and the designation of moose, caribou, Dall sheep, and beaver as priority species for all alternatives. We would encourage the BLM to consider the inclusion of apex predators, such as grizzly bears, since these species play an important ecological role in adjacent conservation system units.	Priority species are defined in the glossary as "A species in the planning area that is recognized as significant for at least one factor, such as density, diversity, size, public interest, remnant character, or age (BLM Handbook 1601)." The BLM must limit its list of priority species to meet this definition and from a practical standpoint, ability and capacity to manage for these habitats. As such, the BLM has kept the four priority species, though grizzly bear has been added to Section 3.2.7 as another important species.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	55	Wildlife	208.0700.00	We encourage the BLM to propose the following additional actions to adequately manage for habitat connectivity in the final RMP: * Develop additional safeguards for the connectivity areas outlined in Map G-3 in the draft RMP (p. G-9). "Doing ROW avoidance where practicable" is inadequate. At best, these identified corridors would be formally designated as "wildlife movement corridors" and be managed primarily to protect intact, undisturbed habitat. Management standards in these areas should include no revocation of PLOs within these corridors, no revocation of d-1 withdrawals, and higher percentages of ROW avoidance than what is currently proposed. * SOP Landscape 1 (p. F-14), to safeguard connectivity corridors, should be applied to all alternatives, not just Alternative B (p. 3-84). * Also, in Appendix F, include SOP Benchmark 4 requiring the use of BEACONS-type GIS products to identify areas with minimal conflict to maintaining ecological connectivity with each locatable mineral and ROW permit decision.	Connectivity corridors are considered within the range of alternatives and management would vary by alternative (RMP/EIS Chapter 2 and **Appendix G**). Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of the connectivity corridors; these would be described in the Record of Decision for the RMP/EIS.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	59	Wildlife	208.0700.00	We appreciate that Alternative C1 allocates two Core Caribou Ranges for the Galena and Ray Mountain Herds. We support these areas, request that they be included in the proposed RMP, and ask the BLM to expand the areas to include Core Caribou Range for the Hodzana Herd. We recommend similar conservation safeguards for all three small caribou herds be adopted in the final RMP, such as ROW avoidance or exclusion, OHV restrictions during calving season, and reducing the acreage open to locatable mineral development. We also request that the BLM consider inclusion of Core Caribou Ranges for the northern caribou herds, namely the Western Arctic Caribou Herd (WACH), and also the Central Arctic and Porcupine Herds. The WACH is the largest caribou herd in the State of Alaska, with a full habitat range that spans more than 100 million acres. While most of that acreage is outside of the planning area, it is incumbent on the BLM to coordinate with other federal and state agencies, as well as other landholders and managers, to cooperatively manage the WACH across jurisdictional boundaries. The agency should also adopt allocations and management actions that conserve these habitats on BLM-administered lands.	The BLM has included a range of alternatives related to caribou management that would meet the wildlife goals. These include management for potentially affected herds in the planning area. The additional requested herds for consideration are outside of the planning area and thus management of BLM-administered lands has limited influence on those herds.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	60	Wildlife	208.0700.00	We urge the BLM adaptively manage all Core Caribou Ranges within the Central Yukon planning area based on an annual review of emerging data that may indicate changes in which lands caribou utilize during calving, migration, and wintering. Additionally, we request that the BLM take steps to avoid and minimize mineral development and associated infrastructure development within these Core Caribou Ranges, given the scientific literature that documents a wide range of estimates of caribou displacement from disturbance related to mining. If the BLM does allow surface development within these areas, we recommend robust permitting processes with strict stipulations that require a plan that demonstrates how caribou habitat will not be negatively affected by development. In summary, we recommend that the proposed RMP include the Core Caribou Ranges (746,000 acres) as proposed in Alternative C1, with some increased protections, and that it also include the addition of the Hodzana Herd, and that these caribou ranges be adopted in the final RMP.	While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives related to caribou. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. The range of alternatives in the RMP/EIS represented a full spectrum of options including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen; these would be described in the Record of Decision for the RMP/EIS.
Leahy	Jen	Theodore Roosevelt Conservation Partnership	None	202	61	Wildlife	208.0700.00	We also support the three new special management areas to manage sheep habitat in Alternative C1: Dall Sheep Habitat Area, Dall Sheep Movement Corridor, and Dall Sheep Study Area (538,900 acres combined). While we appreciate that Appendix I details specific allocations and management actions for these new designations, we are concerned that some of those allocations and management actions may be inadequate. We recommend strengthening management actions such as disturbance limits, noise restrictions, and ROW allowances based on the best available science. The updated guidelines should then be included in the SOPs in Appendix F and reflected in the proposed and final RMPs.	The BLM used the most recent and best information available that was relevant to developing the management actions for Dall sheep included in the RMP. Additionally, the BLM consulted with, collected, and incorporated data from other agencies and sources, including scientific literature and field and district office data. The commenter did not provide specific studies to include, so no further science was considered in response to this comment.

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National Wildlife Refuges	Koyukuk	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Northern Unit of Innoko National Wildlife Refuges	205	4	Wildlife	208.0700.00	Alternative C2 fails to adequately protect critical wildlife habitat in areas adjacent to Koyukuk, Nowinta, and Innoko NWRs including core calving areas of the Galena Mountain Caribou Herd. Under Alternative C2 these core calving areas are threatened by the failure to recognize ACECs, failure to restrict OHV use, ROW, and aircraft use, and through revocation of PLOs.	The range of alternatives in the RMP/EIS represented a full spectrum of options for managing critical wildlife habitat including a no action alternative (current management, Alternative A). Components of several alternatives may be chosen including those that are more protective of critical wildlife habitat; these would be described in the Record of Decision for the RMP/EIS.
National Wildlife Refuges	Koyukuk	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Northern Unit of Innoko National Wildlife Refuges	205	6	Wildlife	208.0700.00	Alternative B best protects Ray Mountain and Galena Mountain caribou ranges. However, we recommend amending Alternative B to prevent revocation of PLOs within the ranges of these caribou herds (including PLOs 5173, 5180, 5179, and 5186).	The range of alternatives in the RMP/EIS represented a full spectrum of options for managing caribou including a no action alternative (current management, Alternative A). Management requested by the commenter is included in the range of alternatives. Components of several alternatives may be chosen, including retention of PLOs within the ranges of the requested caribou herds; these would be described in the Record of Decision for the RMP/EIS.
National Wildlife Refuges	Koyukuk	U.S. Fish and Wildlife Service	Koyukuk, Nowitna, and Northern Unit of Innoko National Wildlife Refuges	205	7	Wildlife	208.0700.00	Beaver are identified as a priority species in the planning area, but there are no specific objectives or management actions related to beaver provided in this document. We recommend developing specific objectives and actions for beaver populations as long as beaver are identified as a priority species in the planning area.	Special management for beaver was determined not necessary, as adequate protections would be provided through the range of alternatives for general wildlife and protections for wetlands and floodplains.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	7	Wildlife	208.0700.00	Further, the Service requests the BLM consider areas where climate connectivity corridors, identified by Gabrielsen (2019) may be gained to complement land facet connectivity corridors depicted in Appendix G (map-G-3, Magness et al. 2018). Incorporating climate corridors will provide additional protection to sensitive ecosystem between Conservation System Units (CSU) and can assist the BLM in determining where site-specific adaptive management strategies will be important to protect these vulnerable areas (Hilty et al. 2020, Keeley et al. 2018, Hansen 2014).	All of the action alternatives incorporate climate change adaptability. At the implementation level, the BLM will incorporation additional best available science regarding climate adaptation for site-specific decisions.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	8	Wildlife	208.0700.00	However, the Service is concerned the focus on resource development for Alternatives C2 and D, in addition to allowing development within corridors across all alternatives, would limit the BLM's ability to meet its stated objective of "minimizing wildlife habitat fragmentation and impacts on wildlife" (page 2-22). In Alternatives C2 and D, connectivity corridors are eliminated, which when combined with full revocation of PLO 5150, further restricts the BLM's ability to thoughtfully plan for landscape connectivity and conserve ecological values. This impacts the BLM's ability to meet their stated objective, as much of the lands within the corridor have been top-filed by the State of Alaska, with eventual conveyance to the State.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. Components of several alternatives may be chosen, including those that would be more restrictive of development or retaining the PLO 5150 withdrawal; these would be described in the Record of Decision for the RMP/EIS. Additionally, the resulting action alternatives offer a range of possible management approaches for responding to planning issues and concerns identified through public scoping. While the goals are often the same across alternatives, each alternative contains a discrete set of objectives and management actions and constitutes a separate RMP with the potential for different long-range outcomes and conditions.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	9	Wildlife	208.0700.00	Connectivity corridor designations, which comprise 369,235 acres (less than 3% of the BLM's current 13.1 million acres in the planning area), would serve as a substantial conservation feature at a landscape scale to help protect important ecological functions (Heller and Zavaleta 2009, CYRMP/DEIS). Without considerations for the greater ecosystems within which they are embedded, and ensuring permeability of movement across the landscape, protected areas may fail to sustain biodiversity (Belote and Wilson 2020). The BLM, with leverage from seven NWRs, has a unique opportunity seldom available in more developed landscapes to maintain intact ecological connectivity between CSUs in Alaska. For these reasons, we strongly urge the BLM to incorporate connectivity corridors into the final alternative and Record of Decision. Additionally, given the narrow width of the proposed corridors, we believe development within these areas could potentially affect their integrity and function via fragmentation and disturbances. Therefore, we do not recommend allowing development within these areas. However, if development is allowed, then stronger conservation measures must be in place to protect these areas (e.g. required rather than standard operating procedures, leasing stipulations). The Service would welcome partnering with the BLM on developing adequate protection measures for connectivity corridors where development is authorized.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives. Connectivity corridors would be managed under all action alternatives and could be chosen for the decision.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	21	Wildlife	208.0700.00	We recommend full protection of the GMH ACEC and retention of PLO 5173 where it occurs in the GMH calving grounds. The Service requests that radio collar data from the Hodzana Highlands and Ray Mountain Herds be utilized in the RMP to establish a pattern of migration and inform conservation of essential habitats including migration corridors, improved delineation, and conservation of habitat will help ensure continued opportunities for subsistence use of these herds.	The BLM has included a range of alternatives related to caribou management that would meet the wildlife goals. Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of caribou habitat; these would be described in the Record of Decision for the RMP/EIS. Radio collar data is not needed to further characterize conditions in the RMP/EIS but could be used during the implementation stage as appropriate.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	22	Wildlife	208.0700.00	We recommend developing specific objectives and actions for beaver populations as long as beaver are identified as a species of special concern in the planning area. Due to the close association with waterbodies, beaver would be directly impacted from surface disturbing activities in any floodplain.	Special management for beaver was determined not necessary, as adequate protections would be provided through the range of alternatives for general wildlife and protections for wetlands and floodplains.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	23	Wildlife	208.0700.00	We recommend developing specific objectives and actions for moose populations as long as they are identified as a species of special concern in the planning area. We have concerns over the potential for impacts to wetlands and riparian habitats that moose rely on through increased development under Alternatives C2 and D and the impact these could have on moose populations. We also recommend that moose populations and movements be considered when identifying and protecting connectivity corridors within the planning area.	Special management for moose was determined not necessary, as adequate protections would be provided through the range of alternatives for general wildlife and protections for riparian and wetland vegetation.
Siekaniec	Gregory	U.S. Fish and Wildlife Service	None	206	24	Wildlife	208.0700.00	Dall Sheep: Section 303(2)(B) of ANILCA set forth the protection of Dall sheep populations and habitat in their natural diversity as a purpose for Arctic Refuge. We support the BLM's three defined Dall Sheep Management Areas identified in the RMP: Dall Sheep Habitat Areas, Dall Sheep Movement Corridors (DSMC), and Dall Sheep Study Areas encompassing 538,900 acres. The Service requests that additional acreage be added to the DSMCs near Chandalar Shelf north beyond the Atigun Pass ending near Galbraith Lake. We support ACECs designated to protect Dall sheep habitat as management actions.	The BLM has included a range of alternatives related to Dall sheep management that would meet the wildlife goals. Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of Dall sheep habitat; these would be described in the Record of Decision for the RMP/EIS.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	47	Wildlife	208.0700.00	Comment 1 Maintaining and restoring landscape connectivity is one of the main climate adaptation actions to prevent the decline of fish and wildlife in a warming world (Heller and Zavaleta 2009, Biological Conservation). Maintaining natural habitat corridors between the Yukon Flats and Kanuti NWRs as suggested in Magness and Robertson 2016 is highly recommended. If BLM will not provide for protected landscape connectivity between the two national wildlife refuges to maintain biodiversity, please explain how a general flow of biodiversity will be sustained.	Connectivity corridors are considered within the range of alternatives and management would vary by alternative (RMP/EIS Chapter 2 and **Appendix G**). Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of the connectivity corridors; these would be described in the Record of Decision for the RMP/EIS.

Last Name	First Name	Organization Name	Organization Name, subgroup	Letter #	Comment Number	Comment Code Name	Comment Code Number	Public Comment	BLM Response
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	56	Wildlife	208.0700.00	The Hodzana caribou herd occurs in the northwestern portion of the Refuge. BLM maintains radio collars on a sample of these caribou. However, data from the caribou appears to be lacking. These data could be used to establish a pattern of migration over time, and be useful for demonstrating migration corridors. We encourage BLM reconsider usage of caribou movement location data to delineate core use areas, and to evaluate effects of proposed actions. We request protections for the unique Hodzana caribou herd and its habitat, that includes maintaining withdrawals in core areas until new FLPMA withdrawals are put in place, managing lands with wilderness characteristics as a priority over other uses, OHV restrictions during critical stages of the Hodzana caribou herd life history, and ROW exclusion.	The BLM has included a range of alternatives related to caribou management that would meet the wildlife goals. Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of caribou habitat; these would be described in the Record of Decision for the RMP/EIS. Radio collar data is not needed to further characterize conditions in the RMP/EIS but could be used during the implementation stage as appropriate.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	57	Wildlife	208.0700.00	We urge adoption of an adaptive management strategy as identified under Alternative B in order to achieve the stated purpose of proactive management and prevent the cumulative erosion of the ecological values and services that the BLM is mandated to manage in a sustainable manner. Specifically BLM should 1) maintain existing mineral withdrawals to lands within the identified benchmarks until new FLPMA withdrawals or modifications to existing withdrawals can be put in place to protect and maintain the stated purposes of the benchmark networks: 2) designate the 31 existing or proposed Areas of Critical Environmental Concern (ACECs) under Alternative B to serve the role of protecting unique resource values (e.g. salmon and sheefish spawning areas); 3) prioritize discreet regions for intensive management to limit the development footprint. 4) retain benchmarks offered in Alternative B, which cover the headwater areas of several refuges, encompass 18 existing and/or proposed ACECs, and encompass connectivity corridors that are important to far ranging species as being vital to fish and wildlife in regard to climate adaptation.	The BLM considered a reasonable range of alternatives during the RMP planning process in full compliance with the NEPA. While there are many possible alternatives or actions to manage public lands in the planning area, the BLM fully considered the planning issues developed during the scoping process to determine a reasonable range of alternatives. As a result, Alternatives A, B, C1, C2, D, and E were analyzed in detail in the RMP/EIS that best addressed the issues and concerns identified by the affected public. Management requested by the commenter is included in the range of alternatives. Components of several alternatives may be chosen, including those requested by the commenter; these would be described in the Record of Decision for the RMP/EIS.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	59	Wildlife	208.0700.00	To achieve protections of ecological benchmarks we recommend BLM limit permitted activities to those areas outside of the Benchmark network as the BEACONs model was originally intended. As designed, benchmark areas are intact landscapes with little or no human development footprint, "so that ecological and evolutionary processes are operating without influence by human activity," [emphasis added] and that function as reference or control sites in an adaptive management framework (Schmiegelow et al. 2006, Schmiegelow et al. 2014, BEACONs 2017).	The BLM's strategy for management within the identified ecological benchmark areas is described in detail in **Appendix G**, and specifically Section G.1.3. As described there, "The BLM also proposes to manage land uses to sustain ecological representation within a selected set of potential ecological benchmarks." Adaptive management proposed in **Appendix G** would "allow the BLM to distinguish changes associated with permitted land uses from changes associated with other change agents. This would help inform management of permitted activities throughout the planning area."
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	92	Wildlife	208.0700.00	Maintaining and restoring landscape connectivity is one of the main climate adaptation actions to prevent the decline of fish and wildlife in a warming world (Heller and Zavaleta 2009, Biological Conservation). Maintaining natural habitat corridors between the Yukon Flats and Kanuti NWRs as suggested in Magness and Robertson 2016 is highly recommended. If BLM will not provide for protected landscape connectivity between the two national wildlife refuges to maintain biodiversity, please explain how a general flow of biodiversity will be sustained.	Connectivity corridors are considered within the range of alternatives and management would vary by alternative (RMP/EIS Chapter 2 and **Appendix G**). Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of the connectivity corridors; these would be described in the Record of Decision for the RMP/EIS.
Fox	Jimmy	U.S. Fish and Wildlife Service	Yukon Flats National Wildlife Refuge	207	93	Wildlife	208.0700.00	A recent post-doctoral study by Gabrielsen (2019) evaluated climate connectivity as a tool for proactive conservation planning in Alaska and Northwest Canada. Gabrielsen's approach used climate gradient modeling, (complementary to Magness et al. 2018 geodiversity approach), to identify corridors (that follow climate gradients) to provide species the opportunity to track suitable climates across Alaska and northwest Canada (Gabrielsen 2019). The climate gradient modeling took into account the protected areas network (Conservation System Units), climate layers, and resistance surface which includes development (mining, transportation, human disturbance) and when run through the model, it output climate-gradient corridors under different (historical and projected) climate emission scenarios. Among Gabrielsen's (2019) findings include spatial shifts in climate corridors, and decreased north-south climate connectivity corridors in the planning area under the NCAR-CCSM4 CGM, RCP 8.5 (2050 and 2080 time frames). Gabrielsen also observed that climate corridors largely mirrored riparian corridors such as the Yukon and Koyukuk Rivers spanning the Central Yukon planning area. By identifying areas where climate corridors may be gained under future change, the approach can aid in identifying conservation priorities falling between existing protected areas. These may represent areas where avoiding future development in focused areas may maintain broader landscape connectivity. Additionally, through its coarse-filter evaluation of where existing corridors may be lost under projected climate change, this approach supports adaptive management efforts to identify vulnerable corridors meriting additional analysis of their value to individual species. (Gabrielsen 2019). In light of this, we recommend BLM include results from Gabrielsen's research into the Draft EIS analysis, to complement the geo-diversity connectivity corridor results from Magness et. al. (2018). Gabrielsen's results indicate that rivers and waterways (and terrestrial areas) provide important and crucial (in the face of a changing climate) corridors to allow for the movement of fish, wildlife and plants, and thus these areas should receive priority protection and allocations over other resource uses in the planning area. LITERATURE CITED Gabrielsen, C. 2019. Evaluating climate connectivity for proactive landscape conservation planning in Alaska and Northwest Canada. Unpublished Report to USFWS. University of Alaska Fairbanks, Institute of Arctic Biology, Alaska Cooperative Fish and Wildlife Research Unit.	All of the action alternatives incorporate climate change adaptability. At the implementation level, the BLM will incorporation additional best available science regarding climate adaptation for site-specific decisions.
Fox	Joanna	U.S. Fish and Wildlife Service	Kanuti National Wildlife Refuge	208	5	Wildlife	208.0700.00	We strongly support BLM's proposal to fulfill the goals of the draft Central Yukon RMP by sustaining landscape connectivity between major conservation units and monitoring representative ecological benchmarks to all detection of landscape changes. Specifically, we support the connectivity corridors depicted in map G-3 and the associated SOPs in Appendix F. Maintaining habitat connectivity is one of the most important actions managers can take to provide for resilience in the face of climate change. Being centrally located in the planning area, Kanuti NWR has an arguably outsized function relative to connectivity corridors. It connects to Koyukuk and Yukon Flats NWRs to the west and east, respectively, and to Gates of the Arctic National Park to the north, and thereby connects these CSUs and their connections together as well. In Chapter 2, the draft Central Yukon RMP states that planning for conservation corridors in Alternative B will be "considered to a greater degree under this alternative than the other alternatives, with less emphasis on resource development," while conservation corridors in Alternative C1 "would be considered in the context of allowing for more minerals development and other resources uses than under Alternative B." Connectivity corridors are ignored entirely for Alternatives C2 and D. Appendix G states that conservation corridors "would be the same under Alternatives B, C1, C2, and D and would be managed by applying the SOPs." This seems to mean conservation corridors will be the same spatially and size-wise, but not in management style. In "SOP Landscape-1" for conservation corridors in Appendix F, there is no indication of which or how the mitigation measures presented will be applied differently between Alternatives B and C1 (as it's said they would be in Chapter 2), nor is there any mention if or how management of conservation corridors is to be under Alternatives C2 and D.	Connectivity corridors are considered within the range of alternatives and management would vary by alternative (RMP/EIS Chapter 2 and **Appendix G**). Components of several alternatives may be chosen, including aspects of an alternative that may be more or less protective of the connectivity corridors; these would be described in the Record of Decision for the RMP/EIS.
Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	48	Wildlife	208.0600.00	Appendix G provides an estimate of 369,325 acres of connectivity corridors (USBLM 2020 CYRMP pg. G8). We would like to stress that this is an estimate of the areal extent of these corridors resulting from scientific modelling of enduring landscape features without field ground truthing. The Alaska Chapter maintains that there should be some buffers or margins around the modeled corridors depicted on page G9. We recommend that, with buffers, an estimated 20 townships, or 460,000 acres, in the outer Dalton corridor, should remain in the federal domain, and be designated as important wildlife habitat connectivity corridors. These two connectivity areas along the Dalton Highway outer corridor should be protected by at least ROW avoidance, but preferably ROW exclusion and/or permanent FLPMA replacement withdrawal.	The BLM added text to **Appendix G**, Adaptive Management Framework, noting that the connectivity corridors and ecological benchmarks are derived from the best available data. Modeled data is the best available data in this case, ground-truthed data are not available.

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Jochum	Kim	The Wildlife Society, Alaska Chapter	None	81	50	Wildlife	208.0600.00	We recommend that BLM also formally designate connectivity areas 3,4,5,6, and 7, listed above, and provide added levels of protection that at a minimum would increase amounts of ROW avoidance or ROW exclusion in the final selected alternative. We believe that the range of Alternatives proposed for ROW exclusion areas in the present RMP/DEIS (Alt B = 17.6%; Alts. C1 and C2 = 2%) is not adequate to avoid habitat fragmentation in key connectivity areas over the life of the plan. Likewise, the range of alternatives proposed for ROW avoidance (B = 30%; C1 = 3% and C2 = 0.6%) would not adequately guard against fragmentation of these corridors during the life of the plan. We recommend the percentage of lands with ROW restrictions in the final-selected RMP/FEIS alternative be increased: for example, at least 17% ROW exclusion and 30% ROW avoidance, respectively (Alternative B-levels), targeting the above-listed key connectivity areas in order to avoid habitat fragmentation.	The BLM added text to **Appendix G**, Adaptive Management Framework, about quantifying the impacts of the alternatives on connectivity corridors and ecological benchmarks.