



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

Bering Sea - Western Interior

Record of Decision and Approved Resource Management Plan

January 2021

Prepared by:
US Department of the Interior
Bureau of Land Management

In Cooperation with:
U.S. Fish and Wildlife Service
Native Village of Chuathbaluk
Nulato Village
Native Village of Shaktoolik
Iqurmiut Traditional Council
Nikolai Village
Anvik Village
Stebbins Community Association
Holy Cross Village
Native Village of Unalakleet
Organized Village of Grayling
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

Old Woman Mountain, located on the Iditarod National Historic Trail between the Yukon River and the Bering Sea. Photo by Kevin Keeler (BLM).

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Acronyms and Abbreviations

ACEC	Area of Critical Environmental Concern
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
AFO	Anchorage Field Office
AIANTA	American Indian Alaska Native Tourism Association
AIM	Assessment, Inventory, and Monitoring
ANCSA	Alaska Native Claims Settlement Act
ANILCA	Alaska National Interest Lands Conservation Act
AO	Authorized Officer
APDES	Alaska Pollutant Discharge Elimination System
APLIC	Avian Power Line Interaction Committee
ARV	Aquatic Resource Value
ATV	all-terrain vehicle
BLM	Bureau of Land Management
BMP	best management practice
BSWI	Bering Sea–Western Interior
CA	cooperating agency
CEQ	U.S. Council on Environmental Quality
CFR	Code of Federal Regulations
CSU	conservation system unit
CYRMP	Central Yukon Resource Management Plan
DOI	Department of the Interior
EDRR	Early Detection Rapid Response
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ES&R	emergency stabilization and rehabilitation
ESA	Endangered Species Act
EUCA	Excluded Unconveyed Claim Area
FAA	Federal Aviation Administration
FLPMA	Federal Land Policy and Management Act

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GIS	geographic information system
GVWR	gross vehicle weight rating
HUC	Hydrologic Unit Code
HVW	high-value watershed
ID	Interdisciplinary
IM	Instruction Memorandum
INHT	Iditarod National Historic Trail
MOU	Memorandum of Understanding
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NNIS	nonnative invasive species
NSO	no surface occupancy
NPS	National Park Service
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NTMC	National Trail Management Corridor
NTSA	National Trail System Act
NWR	National Wildlife Refuge
OHV	off-highway vehicle
OHWM	ordinary high-water mark
OSV	over-snow vehicle
PFYC	Potential Fossil Yield Classification
PNC	potential natural condition
R&PP	Recreation and Public Purposes
RAC	resource advisory council
RCE	Reclamation Cost Estimate
RM	river mile
RMP	Resource Management Plan
RMZ	Recreation Management Zone
ROD	Record of Decision
ROW	right-of-way

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RSC	Recreation Setting Characteristic
SOP	standard operating procedure
SRMA	Special Recreation Management Area
SRP	special recreation permit
SSS	special status species
SWMFP	Southwest Management Framework Plan
TMA	Travel Management Plan
UAS	unmanned aerial system
U.S.	United States
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service
UTV	utility terrain vehicle
VRM	Visual Resource Management
WSR	Wild and Scenic River

I. RECORD OF DECISION

1. Introduction

The Federal Land Policy and Management Act of 1976 (FLPMA) (43 United States Code [U.S.C.] 1701 et seq.) directs the United States (U.S.) Department of the Interior (DOI), Bureau of Land Management (BLM) to develop and periodically revise resource management plans (RMPs), which guide the management of BLM-managed lands. This Record of Decision (ROD) approves the attached RMP to manage public lands administered by the BLM Anchorage Field Office (AFO) within the Bering Sea–Western Interior (BSWI) Planning Area (planning area). The background and rationale for approving the proposed decisions, as well as clarifications and modifications made to address protests to the Proposed RMP, are described in this ROD.

The planning area extends south from the Central Yukon watershed through the Kuskokwim River watershed, including all lands west of Denali National Park and Preserve to the Bering Sea and covers 13.5 million acres managed by the BLM within the broader area of 62.3 million acres. The Approved RMP does not apply to non-BLM lands, including lands conveyed through the Alaska Native Claims Settlement Act (ANCSA) or Alaska Statehood Act; federal lands administered by the U.S. Fish and Wildlife Service (USFWS); private lands; or Native allotments (including townsite lots).

2. Decision

The attached BSWI RMP is hereby approved. The decisions in this ROD and Approved RMP supersede the previous BLM land use plans that guided management within the planning area boundaries; the Approved RMP will replace all but a small portion of the 1981 Southwest Management Framework Plan (SWMFP; BLM 1981) and a portion of the 1986 Central Yukon RMP (CYRMP; BLM 1986a) that has been incorporated into the BSWI planning area, including amendments.

The BLM prepared this RMP under the authority and regulations (43 Code of Federal Regulations [CFR] 1600) implementing FLPMA. It includes broad land use plan decisions that provide the BLM AFO direction for managing resources and resource uses in the planning area. The BLM prepared an Environmental Impact Statement (EIS) for this plan in compliance with the National Environmental Policy Act of 1969 (NEPA). Land use plan decisions identified in the Approved RMP are final and become effective when this ROD is signed.

Between the publication of the Proposed RMP/Final EIS and this ROD the BLM became aware that approximately 1,936 acres of the planning area are within designated polar bear critical habitat. In light of that information, to ensure consistent management of resources in and around the critical habitat, the decisions in the Approved RMP for certain lands described below in Section 3.4, will be deferred to a future land use plan amendment in order to ensure appropriate management direction consistent with the purpose of the polar bear critical habitat designation. In the interim, the BLM will not approve activities in these areas until a land use plan amendment is completed.

3. *Alternatives*

3.1 Introduction

An RMP provides broad guidance for managing public lands and documents decisions that guide future land management actions and subsequent site-specific implementation decisions. FLPMA directs the BLM to develop RMPs as the primary means to identify and allow for appropriate uses of BLM-managed land. RMP decisions establish goals and objectives for resource management (desired outcomes) and the identified uses (allocations) that are allowable, restricted, or prohibited in order to achieve the goals and objectives. Management actions are also identified where they could help to achieve desired outcomes and include measures or criteria that may guide both day-to-day and long-term management. All decisions are pursuant to the multiple-use and sustained-yield mandate of FLPMA.

NEPA requires the development and consideration of a reasonable range of alternatives, including a no action alternative, to analyze impacts and guide decision makers in developing and selecting the Approved RMP. The BSWI RMP Interdisciplinary (ID) Team used the BLM planning process according to BLM's Land Use Planning Handbook (BLM 2005a) to develop a range of reasonable alternatives for the RMP that would (1) meet multiple use and sustained yield mandates of the FLPMA; (2) address the planning issues compiled from the public, cooperating agencies (CAs), and the BLM ID Team; and (3) fulfill the purpose and need for the RMP (see Section 1.2 of the Final EIS) by addressing management needs and opportunities for the planning area.

The BLM developed four action alternatives and analyzed them and the no action alternative in detail in the Proposed RMP/Final EIS. Alternatives included different combinations of management direction to address issues and resolve conflicts among resources and resource uses. In addition to addressing issues, alternatives needed to meet the stated purpose of and need for the RMP, be technically and economically practical or feasible, and not be remote or speculative. Each full alternative constituted a complete land use plan that provided a framework for multiple-use management of the full spectrum of resources, resource uses, and resource programs on BLM-managed lands within the planning area.

3.2 Alternatives Analyzed in Detail

The five alternatives (four action alternatives and one no action alternative) carried forward for detailed analysis in the Proposed RMP/Final EIS were developed in response to issues and concerns identified through internal agency scoping, public scoping, the Areas of Critical Environmental Concern (ACEC) comment and nomination period, Wild and Scenic River (WSR) study process, the preliminary alternatives outreach period, and the Draft RMP/EIS public comment period. All the action alternatives share common goals and objectives; however, they address these goals and objectives to varying degrees with the potential for different long-range outcomes and conditions.

3.2.1 Alternative A (No Action Alternative)

This alternative represents existing management under the current land use plans for the planning area. Alternative A meets the NEPA requirement in 40 CFR 1502.14(d), which instructs the BLM to include the alternative of no action. This alternative provides the benchmark for what would happen to the environment if present management direction and practices were continued. Direction contained in existing laws, regulations, policies, and standards would also continue to be implemented, sometimes superseding provisions of the 1981 SWMFP (BLM 1981) and the 1986 CYRMP (BLM 1986a) and

subsequent amendments. The current levels, methods, and mix of multiple-use management of BLM-managed lands in the planning area would continue, and resource values would continue to receive attention at present levels.

3.2.2 Alternative B (Environmentally Preferable Alternative)

This alternative emphasizes protecting, preserving, and enhancing important historic, cultural, and natural resources while also reducing the potential for competition between recreational or developmental uses and subsistence resources. It identifies key areas for additional management actions that focus on maintaining long-term resource values within the planning area. This alternative seeks to support subsistence uses through sustainable management of the resources on which subsistence depends but also by attempting to reduce competition for those resources in key areas surrounding rural communities. Alternative B provides clear guidance on the requirements for subsequent site-specific management and projects, providing a higher level of resource protections to ensure consistency, but limits flexibility at the site-specific implementation level.

3.2.3 Alternative C (Draft RMP/EIS Preferred Alternative)

This alternative emphasizes adaptive management at the planning level to avoid and minimize impacts to the long-term sustainability of resources while providing for multiple resource uses. It emphasizes collaboration with and education of permit applicants to address potential competition for use of existing resources. This alternative is meant to provide flexibility at the planning level while still providing enough direction to make processing of site-specific projects easier and more consistent.

3.2.4 Alternative D

This alternative provides additional flexibility at the site-specific implementation level and fewer management restrictions at the planning level. Alternative D relies on existing federal laws and implementation-level NEPA to a greater extent than Alternative B, C, or E to determine how to best manage multiple uses of sensitive resources while preserving long-term sustainability.

3.2.5 Alternative E (Proposed and Approved RMP)

This alternative emphasizes adaptive management at the planning level to protect the long-term sustainability of resources while providing for multiple resource uses. This alternative is meant to provide flexibility at the planning level while still providing enough direction to make processing of site-specific projects easier and more consistent. After the release of the Draft RMP/EIS, the BLM developed Alternative E in response to public feedback received by using Alternative C (the Preferred Alternative from the Draft RMP/EIS) as a starting point and pulling in different management actions from the other alternatives to meet this emphasis. Alternative E is the BLM's Approved RMP for the planning area.

3.3 Implementation-Level Decisions

This decision document approves both land use plan decisions and implementation-level actions identified below in Table I-1 and in the Approved RMP. Appendix C of the BLM Land Use Planning Handbook (BLM 2005a) provides program-specific guidance to separate land use plan decisions from implementation decisions. The land use plan decisions in this document are effective upon signature of the ROD. These decisions include the goals, objectives, and management actions such as the allocation of lands as limited for off-highway vehicle (OHV) use or right-of-way (ROW) avoidance. These decisions

require no additional analysis and guide future land management actions and subsequent site-specific implementation decisions on BLM-managed public lands. Proposals for future actions, such as an application for a new ROW and other allocation-based actions, will be reviewed against the decisions in the RMP to determine if the proposal conforms with the applicable plan objective and management action.

The BLM will develop an implementation strategy to identify and prioritize the work needed to meet the goals and objectives of the RMP. The implementation plan will assist managers and staff to prepare budget requests and to schedule work priorities. The BLM will prepare supplementary rules, as necessary, to provide full authority to BLM pursuant to the BLM’s authority under 43 CFR 8365.1-6.

Some decisions may take several years to implement on the ground and will require additional analysis and site-specific activity planning. Site-specific NEPA compliance can vary from a simple statement of conformance with the RMP and adequacy of existing NEPA analysis to environmental assessments or EISs that analyze several alternatives. Many of these decisions will be implemented as funding and staff availability allow, subject to national and statewide direction.

The implementation-level decisions in Table I-1 represent interim Travel and Transportation Management decisions that could be revised or replaced through a future Travel and Transportation Management planning process.

Table I-1: Implementation-Level Decisions

Resource/Resource Use/Special Designation	Implementation Decision	Document Reference for Decision in Approved RMP
Travel and Transportation Management	<p>All Lands Not Designated as conservation system units.</p> <p>Summer Casual and Subsistence Access:</p> <ul style="list-style-type: none"> Summer subsistence overland travel use would be limited to all-terrain vehicles (ATVs) and utility terrain vehicles (as defined in Appendix E of the Approved RMP), unless the Authorized Officer (AO) determines that such use is causing or is likely to cause an adverse impact. Summer OHV casual use would be limited to existing routes (as shown in the BLM’s current route inventory once implementation planning occurs). <p>Winter Casual and Subsistence Access:</p> <ul style="list-style-type: none"> No limitations on winter subsistence and casual use cross-country travel. 	Section 2.2.7
Travel and Transportation Management	<p>Unalakleet Wild River Corridor</p> <p>Summer Casual and Subsistence Access:</p> <ul style="list-style-type: none"> Casual summer OHV access is limited to existing trails (not including the Iditarod National Historic Trail [INHT]), primitive roads, and roads (as shown in the BLM’s current route inventory once implementation planning occurs) and includes ATVs only. Subsistence cross-country summer OHV access is allowed and includes ATVs, unless the AO finds that such use is causing or is likely to cause an adverse impact. <p>Winter Casual and Subsistence Access:</p> <ul style="list-style-type: none"> Winter cross-country OHV access allowed for snowmobiles only (as defined in Appendix E of the Approved RMP). 	Section 2.2.7

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Resource/Resource Use/Special Designation	Implementation Decision	Document Reference for Decision in Approved RMP
Travel and Transportation Management	<p>INHT National Trails Management Corridor Travel Management Area (TMA)</p> <p>Summer Casual and Subsistence Access:</p> <ul style="list-style-type: none"> Casual and subsistence summer OHV access is prohibited. <p>Winter Casual and Subsistence Access:</p> <ul style="list-style-type: none"> Winter cross-country casual and subsistence access allowed for snowmobiles only. If winter casual and subsistence snowmobile access results in degradation of the resources or prevents trail management that meets requirements of the National Trails System Act, then this would be prohibited in affected areas. 	Section 2.2.7
Travel and Transportation Management	<p>Rohn Site</p> <p>Summer Casual and Subsistence Use:</p> <ul style="list-style-type: none"> The Rohn Site would allow seasonal casual and subsistence OHV use but is limited to existing routes (as shown in BLM current route inventory once implementation planning occurs). Subsistence use is limited if the AO finds that such use is causing or is likely to cause an adverse impact. <p>Winter Casual and Subsistence Use:</p> <ul style="list-style-type: none"> Winter cross-country casual and subsistence access is allowed for snowmobiles only. 	Section 2.2.7

3.4 Clarifications and Modifications Since the Proposed RMP

The following clarifications and modifications made to the information included in the Proposed RMP/Final EIS are reflected in the attached Approved RMP:

- To provide additional clarity regarding all of the decisions related to high-value watersheds (HVWs), a summary table of decisions specific to HVWs for applicable resources and resource uses was added. This table can be found in the Approved RMP in Section 2.1.4, Fisheries.
- BLM changed the travel management decision associated with watercraft in the Innoko Bottoms Priority Wildlife Habitat Area in the Approved RMP to reflect the travel management decision associated with watercraft considered for the area in Alternative D in the Proposed RMP and Final EIS. There will be no watercraft restrictions within the Innoko Bottoms Priority Wildlife Habitat Area.
- BLM changed the recreation and visitor services decisions associated with Community Focus Zones and the Extensive Recreation Management Area in the Approved RMP to reflect the recreation and visitor services decision considered Community Focus Zones in Alternative D in the Proposed RMP and Final EIS. There will be no designated Community Focus Zones or Extensive Recreation Management Area designation in the planning area.
- An inconsistency was discovered between management actions that discussed new FLPMA mineral withdrawals. To resolve the issue, BLM removed the sentence “No new locatable mineral withdrawals recommended” from Decision L&S Min-13.
- The Nyac mining claim was previously misclassified as an Excluded Unconveyed Claim Area (EUCA) and has been removed from the list of four EUCA's, with three that remain in the Approved RMP: Nixon Fork (70 acres); Flat (2,338 acres); and Ophir (2,539 acres); together totaling 4,947 acres.
- As discussed above in Section 2, the BLM became aware that 1,936 acres of the planning area overlaps with designated polar bear critical habitat and has decided to defer the decisions in the Approved RMP for certain lands in and around the polar bear critical habitat, described below, and not approve activities in these areas until a land use plan amendment is completed. The lands affected by this change are as follows:

- K21S12W- secs. 32 and 33 (all lands in twp) - 85 acres
- K22S12W- secs. 3, 4, 5, 8, 17 thru 20, and 30 - 3,294.3 acres
- K22S13W- secs. 25, 26, 35, and 36 (all lands in twp) - 1,052.39 acres
- K23S13W- secs. 1, 2, 11, 14, 15, 16, 17, 19, and 20 - 3,831.46 acres
- K23S14W- secs. 24 thru 29, 31, 32, and USS 14458 - 3,005.96 acres

4. *Management Considerations and Decision Rationale*

The Approved RMP reflects statutory, regulatory, and national policy considerations. Management decisions are based on review and substantive comments from federal agencies, tribal entities, Alaska Native corporations, State and local governments and agencies, the public, industry, and the 12 CAs that participated in the planning process.

The Approved RMP provides the best combination of management decisions to meet the purpose of and need for the RMP in consideration of the planning issues and management concerns identified through the planning process. It fulfills the purpose by (1) providing goals and objectives for public lands management, and by (2) resolving multiple-use conflicts or issues associated with those requirements. It fulfills the need by addressing current resource conditions, changes in circumstances (e.g., evolving demands on resources), and new or revised national-level policies (43 CFR 1610.5-6) since preparation of the 1981 SWMFP (BLM 1981) and 1986 CYRMP (BLM 1986a), including subsequent amendments.

The Approved RMP provides the most comprehensive framework for addressing the diverse management needs of BLM-managed lands in the planning area. It recognizes the important cultural link between tribes and the planning area and seeks to protect lands in this area for values important to the tribes. In doing so, BLM land use planning in Alaska also takes into account the Alaska National Interest Lands Conservation Act (ANILCA)—for example, ensuring that structures or shelters are used in conjunction with hunting, trapping, and fishing would be consistent with ANILCA §§ 1316 and 1303(b)(1), and implementing ANILCA §§ 811 and 1110(a), which provide specific guidance on access for subsistence and traditional activities. In addition, ANILCA Title VIII establishes a priority for the customary and traditional uses of these subsistence resources by rural Alaskan residents on federal public lands. The law provides the opportunity for rural Alaskan residents to continue to engage in a subsistence way of life. State of Alaska law recognizes a subsistence preference for all residents of Alaska (Alaska Statute 16, Title 16 and Alaska Administrative Code, Title 5). The outcome of the ANILCA § 810 analysis is summarized below.

4.1 ANILCA Section 810

Section 810(a) of ANILCA requires that a subsistence evaluation be completed on the RMP. ANILCA also requires that this evaluation include findings on three specific issues:

- The effect of such use, occupancy, or disposition on subsistence uses and needs
- The availability of other lands for the purpose sought to be achieved
- Other alternatives that reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes

The following discussion summarizes the ANILCA § 810 evaluation for the decision in this ROD. The summary is based on the detailed ANILCA § 810 analysis in Appendix R of the BSWI Proposed RMP/Final EIS.

4.1.1 810 Findings

The BSWI Approved RMP, when considered together with all past, present, and reasonably foreseeable future cumulative effects discussed in the Final EIS, may result in a significant restriction of subsistence for the communities in or adjacent to the planning area. Management actions that are seen as having the most potential to significantly restrict abundance, availability, or access of subsistence resources are:

- Areas open to locatable mineral development in known subsistence areas (in areas of medium/high locatable mineral potential);
- OHV closures to subsistence use areas; and
- Areas open to ROW in subsistence use areas.

The analysis found that, for the communities in the planning area—including Aniak, Anvik, Crooked Creek, Chuathbaluk, Grayling, Holy Cross, Kaltag, Lime Village, Lower Kalskag, Upper Kalskag, Marshall, McGrath, Nikolai, Nulato, Russian Mission, Shageluk, Sleetmute, Stony River, and Unalakleet—locatable mineral decisions may cause a large reduction in the abundance of fish, moose, and caribou harvesting and a major redistribution of fish, caribou, and moose. OHV restrictions and prohibitions for subsistence users would decrease the access to moose, caribou, and fishing locations, and ROW decisions may cause a major redistribution of moose, caribou, and fish resources.

In addition to the bullets listed above, the following proposed management under the Approved RMP could also adversely affect subsistence:

- The use of nonnative plant species for restoration could lead to an effect if reduction of the availability of plants traditionally used for subsistence purposes occurred and substantially affected harvest rates of traditionally used resources.
- For caribou and moose, leasable minerals and construction management actions would apply only to calving habitat. While caribou and moose would be protected during the breeding period, they could be disturbed in their crucial winter habitat areas, with disturbances potentially causing increased energy expenditures and stresses on wintering populations, which could result in decreased survivorship. Decreased survivorship could affect levels of subsistence hunting success in terms of abundance of available resources and reduce rates of harvest and sharing.
- If all available exchanges are carried out, the amount of high-value wildlife habitat in the planning area would be less than under Alternative A or B. These actions would not affect fish, wildlife, or special status species (SSS) habitat important to subsistence in the connectivity corridor.
- Subsistence cross-country summer OHV access would be allowed by ATV and utility terrain vehicle (Chapter 2 of the BSWI Proposed RMP/Final EIS). Summer OHV casual use would be limited to existing routes (as shown in the BLM's current route inventory once implementation planning occurs). Recreational access in the summer could result in impacts to the recreational setting through damage to the resource (e.g., rutting, braiding) and could increase the potential for use conflicts between recreationists and subsistence users, including increased competition for resources and interference with access to resources that reduces subsistence harvest success.

- While gathering of forest firewood and forestry products for subsistence would not require a permit, gathering of forest firewood of more than 10 cords of firewood per household per year for personal use (defined as allowed use of renewable resources, which cannot be sold, bartered, traded or used for profit, by individuals other than federally qualified subsistence users) and gathering of forestry products for personal use would require a permit. This action could result in increased competition to the resources by non-local users (including other federally qualified subsistence users) and a substantial reduction in the opportunity to continue subsistence uses of renewable resources.
- Management decisions and actions that would avoid and minimize impacts on key areas, such as the INHT segments on BLM-managed public lands and associated sites (e.g., Rohn Site, Kaltag Portage, Farewell Burn) and identified HVWs that impact subsistence resources would be beneficial, and any impacts from the limited development allowed under this alternative would be minimized by implementing best management practices (BMPs), standard operating procedures (SOPs), and stipulations.

The cumulative case together with management actions included in the Approved RMP may result in a significant restriction of subsistence use for communities in the planning area due to the potential for a decrease in resource availability, alteration in the distribution of resources, obstruction to access of resources, and an increase in competition from access by non-qualified subsistence users. Potential increased mineral exploration and development due to the lifting of withdrawals, increased recreational activities occurring in or adjacent to the planning area, and climate influences (climate change) may cause a major reduction in the abundance of resources important to subsistence users, such as fish, moose, and caribou. With the trends of continued natural resource development and increased casual and recreational use in the planning area, subsistence resources would continue to be degraded, and subsistence users would face increased competition for available resources by non-local users. For species with habitat or populations that are degrading, the degradation may continue but at a lesser rate and could be stabilized.

4.1.2 Notice and Hearings

ANILCA § 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 §§ 810(a)(1) and (2). In announcing the availability of the BSWI Draft RMP/EIS (BLM 2019), the BLM provided notice in the *Federal Register* that it had made positive findings pursuant to ANILCA § 810 that the alternatives and the cumulative case presented in the initial subsistence evaluation met the “may significantly restrict” threshold. As a result, public hearings were held in the vicinity of the potentially affected communities in the planning area in 2019. ANILCA § 810 Subsistence Hearings were held in Anchorage, Aniak, Anvik, Bethel, Crooked Creek, Chuathbaluk, Grayling, Holy Cross, Kaltag, Lower Kalskag, Upper Kalskag, McGrath, Nikolai, Nulato, Russian Mission, Sleetmute, and Unalakleet. Notice of these hearings was also provided by the local media, including the newspaper and the local radio station, with coverage to communities in the planning area. The determinations presented below are based on the results of the hearings held after the release of the BSWI Draft RMP/EIS (BLM 2019).

4.1.3 Final Determinations under ANILCA Section 810

In addition to the notice and hearing requirements under ANILCA § 810(a)(1) described above, the federal agency is required by ANILCA §§ 810(a)(3)(A), (B), and (C) to make the following three determinations: (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 determinations under the requirements of ANILCA §§ 810(a)(3)(A), (B), and (C) are found in the following sections.

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

On July 18, 2013, the BLM issued a Notice of Intent in the *Federal Register* to prepare an RMP and associated EIS for lands administered by the AFO. As defined by the FLPMA of 1976, as amended, public lands are those federally owned lands and interests in lands (e.g., federally owned mineral estate) that are administered by the Secretary of the Interior, specifically through BLM. These include 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 action was developed that serves to fulfill the multiple-use mission of BLM. This ROD provides a comprehensive land use plan that will guide management of the public lands and interests administered by the AFO.

Current management of these lands in part is guided by the SWMFP and a small portion of the CYRMP, including amendments (BLM 1981; BLM 1986a). Since approval of the SWMFP in 1981 and CYRMP in 1986, new regulations and policies have created additional considerations that affect the management of public lands. In addition, new issues and concerns have arisen over the past 25 years. Consequently, some of the decisions in the SWMFP and CYRMP are no longer valid or have been superseded by requirements that did not exist when the SWMFP and CYRMP were prepared.

It is determined that, after consideration of all alternatives, subsistence evaluations, and input from public hearings, the significant restriction that may occur under the Approved RMP, when considered together with all the possible impacts of the cumulative case, is necessary, consistent with sound management principles for the use of these public lands, for BLM to fulfill the management goals for the planning area as guided by the statutory directives in FLPMA and other applicable laws.

The Proposed Activity Will Involve the Minimal Amount of Public Lands Necessary to Accomplish the Purposes of Such Use, Occupancy, or Other Disposition

It is determined that the Approved RMP involves the minimal amount of public lands necessary to accomplish the purposes of the proposed action—which is the creation of an inclusive, comprehensive plan that provides clear direction to both BLM and the public on how BLM lands and resources in the planning area should be managed. The Approved RMP is only applicable to BLM lands within the planning area.

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 BSWI 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. The importance of subsistence use was reinforced by comments received on the Draft RMP/EIS. The results of public scoping meetings in communities throughout the planning area, consultation with tribal governments, and numerous meetings and correspondence with local governments were all used to craft the Approved RMP. In addition, BLM took into consideration comments from villages and individuals during the ANILCA § 810 Subsistence Hearings. This information resulted in protections and management parameters that are beneficial to subsistence use and are included as part of the Approved RMP. These include:

- Designation of ROW Avoidance Areas that could protect locations of sensitive subsistence resources from ground disturbance,
- Designation of Visual Resource Management (VRM) designations that limit the scope of landscape-altering development,
- Establishment of BMPs and SOPs for all permitted activities within the planning area,
- Limitations on ground disturbance and permanent structures in the 100-year floodplain, and
- Review of proposed mineral development projects in the planning area.

The BLM has determined that the Approved RMP includes reasonable steps to minimize adverse impacts on subsistence uses and resources that may result from the proposed action.

4.2 Final ANILCA Determination

It is 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 management decisions will involve the minimal amount of public lands necessary to accomplish the purposes of the Approved RMP. Finally, reasonable steps have and will be taken to minimize the adverse impacts upon subsistence uses and resources arising from this action.

4.3 Designation of Areas of Critical Environmental Concern

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.

5. Application of the Resource Management Plan to Existing Projects

Because of the long history of public land management, there are numerous rights and privileges that have been established on BLM-managed lands under law, regulation, or planning decisions. The decisions included in this ROD and Approved RMP supersede the 1981 SWMFP (BLM 1981) and a small portion of the 1986 CYRMP (BLM 1986a), and their subsequent amendments. This Approved RMP provides planning-level guidance for the management of resources and designation of uses on all BLM-managed public lands within the planning area and any BLM-managed subsurface estate, including the subsurface beneath private surface estate if the subsurface estate was reserved to the BLM. Nothing in this plan will impact ANCSA or Alaska Statehood Act land conveyances for lands that are currently segregated by a State and/or ANCSA selection. Revocation of ANCSA 17(d)(1) withdrawals will allow top filings by the State of Alaska to become valid selections, thereby segregating those lands. Revocation of ANCSA 17(d)(1) withdrawals would also make lands that are vacant, unappropriated, and unreserved available for qualified veterans under the Dingell Act (Public Law 116-9). Lands covered by the RMP include the following:

- BLM-unencumbered
- BLM State-selected
- BLM ANCSA Native corporation-selected
- Dual-selected
- Mineral estate
- Military lands

Lands selected by ANCSA corporations and the State of Alaska would remain "segregated" (unavailable) to locatable mineral entry.

Other lands within the planning area not covered by the RMP include the following:

- State of Alaska lands
- ANCSA Native-corporation lands
- National Park Service (NPS) lands
- USFWS lands
- Private lands
- Native allotments
- Navigable waters

- ANILCA § 304(c): ANILCA § 304(c) is addressed in the Mineral Occurrence and Development Potential Report for Leasable Minerals within the Bering Sea–Western Interior Planning Area (BLM 2015a) and is not subject to this plan.
- Certain Prior Existing Claims: Any prior existing mining claims administered by the BLM within USFWS or NPS lands are not covered by the RMP.

The ROD and Approved RMP do not authorize any project, approve any application, or provide approval for any specific future action within the planning area. All future applications will be subject to an environmental analysis process, which will include opportunity for public review, identification of potential impacts resulting from the proposed action, development and application of mitigating measures, and assignment of the BMPs and SOPs in Appendix B as appropriate.

In addition, many decisions are not appropriate at this level of planning and are not included in the ROD and Approved RMP. Examples of these types of decisions include:

- Statutory Requirements,
- National Policy, and
- Funding Levels and Budget Allocations.

All BLM lands and federal mineral estate within the planning area remain subject to valid existing rights, as well as subject to the stipulations and conditions of approval associated with the given right at the time it was granted, including the right of reasonable access to surface and subsurface parcels leased for the development of the mineral interest. Resource-related requirements in the Approved RMP would be applied to all new leases, grants, and authorizations that are reissued. On existing leases, grants, or authorizations, the BLM would seek voluntary compliance or would develop conditions of approval for applications for new projects, consistent with valid existing rights, to achieve objectives of resource-related requirements contained in this RMP.

After the RMP is approved, any authorizations and management actions approved based on an activity-level or project-specific EIS (or environmental assessment) must conform with the Approved RMP (i.e., be specifically provided for in the RMP or consistent with the terms, conditions, and decisions in the Approved RMP; 43 CFR 1601.0-5(b)). A land use plan amendment may be necessary to consider monitoring and evaluation findings; substantive new data; new or revised policy; changes in circumstances; or a proposed action that may result in a change in the scope of resource uses or a change in the terms, conditions, and decisions of the Approved RMP. If the BLM determines that a plan amendment may be necessary, preparation of the EIS (or environmental assessment) and the analysis necessary for the amendment may occur simultaneously (43 CFR 1610.5).

Projects that require a decision to extend an authorization or permit may require modification to conform to the RMP before approval, including renewals or extensions of existing authorizations, such as ROW grant renewals. Projects for which site-specific decisions have not yet been signed, but for which preparation of NEPA documents began prior to the ROD's effective date, may also require modification to conform to the RMP. Projects for which site-specific decisions were signed prior to the ROD's effective date, but that have not yet been implemented, may also require modification to conform to the RMP.

6. *Mitigation Measures*

The BLM will apply mitigation measures to BLM-authorized activities within the planning area to achieve land use plan goals and objectives while continuing to honor the BLM multiple-use mission.

The Approved RMP includes the following proposed mitigation management actions:

- Adaptive management, including options for shifts in mitigation strategy and intensity based on monitoring results
- Proactive prioritization of survey and monitoring of resources/resource areas that could be evolving due to climate change and implementation of mitigation to address those impacts
- Increased collaboration with other agencies and landowners to provide for landscape-level management and coordinated monitoring and mitigation efforts at an appropriate scale for impacts
- Management to maintain or improve subsistence access

Approved RMP Appendix B [Best Management Practices (BMP) and Standard Operating Procedures (SOPs)] lists the BMPs applicable to land use activities authorized on BLM-managed lands in the planning area. BMPs are state-of-the-art mitigation measures applied on a site-specific basis to avoid, minimize, reduce, or rectify adverse environmental or social impacts of land use activities. The BMPs included in Appendix B are not intended to be a complete list but rather provide examples of commonly used practices the AFO may require to reduce impacts of surface-disturbing activities, use, or occupancy. More explicit BMPs based on local conditions and resource-specific concerns could be developed once a specific proposal is evaluated through the environmental analysis process. Additional BMPs can be recommended by proponents of proposed activities on BLM-managed lands.

7. *Plan Monitoring*

The BLM will monitor implementation of the RMP and evaluate the need for revisions or amendments every 5 years at a minimum per the BLM's Land Use Planning Handbook (BLM 2005a). RMP evaluations will also be completed prior to any plan revisions and for major RMP amendments. Revisions to the RMP will be required to comply with FLPMA planning guidelines, as well as the environmental review requirements in NEPA.

Land use plan decision monitoring is a continuous process occurring over the life of the RMP. The aim is to maintain a dynamic RMP. Monitoring data are collected, examined, and used to draw conclusions about:

- whether planned actions have been implemented in the manner prescribed by the RMP (implementation monitoring), and
- whether RMP allowable use and management action decisions and the resultant implementation actions are effective in achieving program-specific objectives or desired outcomes (effectiveness monitoring).

The BLM uses conclusions drawn from monitoring to make recommendations on whether to continue current management or identify changes that need to be made to implementation practices to better achieve RMP goals. Indicators, methods, locations, units of measure, frequency, and action triggers can

be established by national policy guidance, in RMPs, or by technical specialists in order to address specific issues.

Based on staffing and funding levels, monitoring is annually prioritized consistent with the goals and objectives of the RMP. The BLM may work in cooperation with local, State, and other federal agencies, or it may use data collected by other agencies and sources when appropriate and available.

8. *Public Involvement*

The BLM follows the land use planning public involvement requirements documented in CEQ regulations implementing NEPA (40 CFR 1501.7 for scoping and 1506.6 for public involvement) and the BLM planning regulations (43 CFR 1601-1610). The BSWI planning process began with the *Federal Register* publication of the BLM's Notice of Intent to develop an RMP/EIS in July 2013. Although the final decision remains with the BLM, the importance of involving tribes, CAs, and the interested public in the evaluation of alternatives is discussed in the BLM's Land Use Planning Handbook, H-160-1 (BLM 2005a).

8.1 Public Scoping

The BLM initiated the scoping process with the publication of a Notice of Intent in the *Federal Register* on July 18, 2013 and concluded it 180 days later on January 17, 2014. The BLM requested agencies, tribes, groups, and the public to identify issues and concerns within the planning area. Scoping comments collected at public meetings and by email, letters, and phone calls were used to identify issues and define the scope of analysis for management alternatives.

The BLM held 10 public scoping meetings in communities with proximity to substantial blocks of BLM lands in late 2013 and held 12 group presentations for other meetings and organizations in 2013 and 2014. The planning team developed preliminary alternatives for the planning process, based on the issues identified during scoping. Additional detail on the public outreach efforts related to the scoping process is included in the *Scoping Summary Report* (BLM 2014).

Scoping efforts for the Nulato Hills portion of the planning area began as part of the Central Yukon planning area's RMP update process in 2013. Outreach and scoping meetings were held in four communities in 2013. After BLM transferred this region to the BSWI planning area in January 2015, the preliminary alternatives were presented, and input was solicited in Kaltag and Nulato in March 2015.

8.1.1 Preliminary Alternatives Outreach

During February and March 2015, the BLM held additional public meetings in 14 communities that focused on explaining the preliminary alternatives (BLM 2014). The BLM released the *Preliminary Alternatives Comment Summary Report* in August 2015, which summarized the initial input received on preliminary alternatives (BLM 2015b). The BLM used the comments, along with subsequently identified issues and planning criteria, to help formulate a reasonable range of alternatives for analysis in the Draft RMP/EIS.

8.1.2 Additional Public Outreach

The BLM provided additional public outreach when there were substantial project updates through its BSWI ePlanning website; mailing of postcards and flyers; six newsletter publications; eNews Blasts; and through press releases, newspaper advertisements, and radio public service announcements.

8.2 Public Review of and Comment on the Draft RMP/EIS

A Notice of Availability announcing the release of the BSWI Draft RMP/EIS was published in the *Federal Register* on March 15, 2019, initiating the formal 90-day public comment period. The BLM engaged in a collaborative outreach and public involvement process during the public comment period that included federally recognized tribes; Alaska Native corporations; city, State, and federal agencies; non-governmental organizations; and the general public. The intent of the comment period was to provide the public with an opportunity to review the Draft RMP/EIS and provide feedback on the analysis. The BLM collected comments on alternatives, objectives, and actions described in the Draft RMP/EIS. The Proposed RMP/Final EIS reflects changes or adjustments based on information received during public comment, new information, or changes in BLM policies or priorities.

Seventeen public meetings were held across the planning area during the public involvement period for the BSWI Draft RMP/EIS. BLM staff at each of the meetings shared a presentation on the Draft RMP/EIS; held an ANILCA § 810 Subsistence Hearing; answered questions; and helped the public submit written or oral comments. A total of 336 people attended the meetings.

In addition to in-person public outreach, BLM launched a BSWI project website (www.blm.gov/ak/planning/bswi). An online open house format was used to post materials during the Draft RMP/EIS public comment period, including meeting times and locations, reports, maps, geographic information system (GIS) shapefiles, meeting summaries, comment forms, postcards, newsletters, information updates, and the comment period deadline. The same materials provided by BLM at the in-person community meetings were made available online. Meeting and issue summaries from scoping remained on the BSWI website to provide connections to earlier outreach efforts in the planning process.

During the BSWI Draft RMP/EIS comment period, the BLM received 11,620 submittals,¹ including 11,448 copies of form letters. In total, 1,534 unique comments were contained within all submission types. The Proposed RMP/Final EIS responded to all substantive comments on the Draft RMP/EIS received during the 90-day comment period.

The *Bering Sea–Western Interior Comment Summary Report* (BLM 2020a) provides additional detail on the public comment period, comments received, and how those comments were addressed in the Proposed RMP/Final EIS.

8.3 Public Review of the Proposed RMP/Final EIS

After publication of the Proposed RMP/Final EIS the BLM received comment letters from the Environmental Protection Agency (EPA) and from the Calista Corporation. The EPA raised concerns with the lack of ACEC designations in the Proposed RMP and the characterization and proposed mitigation of impacts to fisheries resources in the planning area. Calista Corporation's comments were largely

¹ Submittals include cards, emails, oral testimony, or other submissions.

supportive of the Proposed RMP, specifically the revocation of ANCSA 17(d)(1) withdrawals in the planning area, treatment of HVWs and ROW in the Proposed RMP, and the BLM’s outreach and consultation with Alaska Native corporations and Tribes. The BLM considered these comments in developing this ROD and Approved RMP package.

8.4 Protest of the Proposed RMP/Final EIS

The BLM prepared an EIS for the Proposed RMP, in compliance with NEPA. The Approved RMP is similar to the Proposed RMP set forth in the BSWI Proposed RMP/Final EIS, published December 4, 2020 (BLM 2020b).

Fourteen protest letters were received during the 30-day protest period provided for the proposed land-use plan decisions in the Proposed RMP/Final EIS, in accordance with 43 CFR 1610.5-2. Protesting parties include:

- Norton Bay Inter-Tribal Watershed Council
- Earthworks
- Bering Sea–Interior Tribal Commission
- Anvik Tribal Council
- Bering Straits Native Corporation
- Holy Cross Tribe
- Iqurmiut Tribal Council (Iqurmiut Traditional Council)
- Kawerak, Inc.
- Deloy Ges, Inc.
- Native Village of Unalakleet
- Nulato Tribal Council
- Ruby Tribal Council
- SalmonState
- Tanana Chiefs Conference

Once the standing of the protesters was determined, protest letters were reviewed for valid protest issues. Valid protest issues include the following:

- Land use planning-level decisions. Implementation-level decisions are not protestable under the planning regulations.
- Information already raised in comment at some time during the planning process. No new issues can be brought up for protest.
- A concise statement explaining why the BLM State Director’s decision is believed to be wrong. A difference of opinion or disagreement is not sufficient to constitute a protest issue.

After the close of the protest period, the 14 letters received were reviewed for valid protest issues pursuant to 43 CFR 1610.5-2. Of these letters, 3 were determined to be invalid protest submissions and 11 were determined to contain valid protests. These protest issues were analyzed and responded to as part of the protest resolution process. In summary, protests were resolved without making significant changes to

the Proposed RMP, though minor clarifications were made and are explained in Section 3.4, Clarifications and Modifications since the Proposed RMP. The Secretary concluded that the BLM Alaska State Director followed the applicable laws, regulations, and policies and considered all relevant resource information and public input in developing the Proposed RMP. Each protesting party was notified in writing of the BLM's findings and the disposition of their protests. The Secretary of the Interior's decisions on the protests are summarized in the Bering Sea–Western Interior Proposed RMP and Final EIS Protest Resolution Report, which is available at <https://www.blm.gov/programs/planning-and-nepa/public-participation/protest-resolution-reports>. The decision of the Secretary is the final decision of the Department of the Interior.

8.5 Governor's Consistency Review

As required by BLM regulations in 43 CFR 1610.3-2(e) to ensure consistency with State government plans or policies, the BLM initiated the Alaska Governor's Consistency Review for the BSWI Proposed RMP/Final EIS by letter from the BLM State Director dated November 30, 2020. The BLM received a letter from the State of Alaska on January 4, 2021, identifying seven issues. On January 7, 2021, the BLM Alaska State Director notified the Governor of BLM's responses to all the issues raised. The BLM determined that the Proposed RMP was consistent with the State's land use plans, programs, and policies, with two exceptions.

First, BLM removed restrictions on casual use airboats and hovercraft on non-navigable waterways on BLM-managed public lands in the Innoko Bottoms Priority Wildlife Habitat Area in the Approved RMP. The restrictions created management inconsistencies between the Innoko Bottoms Priority Wildlife Habitat Area, and the corresponding Alaska Department of Fish and Game Paradise Controlled Use Area, which has no such travel restrictions.

Second, BLM removed Community Focus Zones because they impact the availability of some BLM-managed lands for commercially-guided hunting. Since they cover a minimal portion of the planning area, the BLM has determined that the Governor's recommendation that the removal of Community Focus Zone designations from the Approved RMP provides a reasonable balance between the national interest and the State's interest.

The BLM received a response from the State on January 11, 2021, indicating the State would not pursue an appeal of the BLM Alaska State Director's resolution of the Governor's Consistency Review, waiving the State's right to appeal the State Director's determination. This concluded the Governor's Consistency Review.

9. Consultation and Coordination

The BLM land use planning regulations (43 CFR 1610.3), FLPMA (43 U.S.C 1712), and regulations for implementing NEPA (40 CFR 1501.5 and 1501.6) guide the BLM in coordinating and cooperating with other federal and State agencies, local governments, and Native American tribes during the land use planning process. This collective guidance instructs the BLM to:

- Stay informed of federal, State, local, and tribal plans;
- Ensure that it considers these plans in its own planning;
- Help resolve inconsistencies between such plans and BLM planning; and

- Cooperate with other agencies and tribal governments in developing RMPs and NEPA analysis.

A variety of strategies have been implemented to foster a collaborative approach, improve communication, and develop understanding of the issues and the process in development of this Approved RMP. Opportunities included formal and informal consultation with agencies, federally recognized tribes, ANCSA corporations, groups, and individuals. Public meetings, workshops, informational bulletins, a project website, correspondence, meetings with agencies and interest groups, and individual contacts.

9.1 Cooperating Agencies Collaboration

The BLM invited agency cooperation early in the RMP process using the process outlined in 43 CFR 1501.6. A CA is any federal, State, or local government agency or federally recognized tribe that has jurisdiction by law or special expertise within the planning area. CAs enter into formal agreements with the lead federal agency to help develop an environmental analysis. More specifically, CAs “work with the BLM, sharing knowledge and resources, to achieve desired outcomes for public lands and communities within statutory and regulatory frameworks” (BLM 2005a).

When scoping for this project began in June 2013, the BLM wrote to 33 city, State, and federal units of the government and 66 tribes in the planning area to invite participation as CAs for the BSWI RMP revision. The State of Alaska, the USFWS, and the Native Village of Chuathbaluk entered into CA agreements with BLM at that time, each signing a formal Memorandum of Understanding (MOU).

In August 2018, in response to requests from tribes and tribal groups to become CAs for the development of the Draft RMP/EIS, the BLM sent MOUs for CA status to Iqurmiut (Russian Mission), Anvik, Grayling, Holy Cross, Shageluk, McGrath, Nikolai, Telida, and Tokotna. When the Draft RMP/EIS was released and the public comment period opened on March 15, 2019, several additional tribes requested CA status, and some that had engaged in the process earlier requested a second MOU.

As of the close of the comment period on July 23, 2019, the following entities had CA status for the BSWI planning process, including three from the initial 2013 offer and nine who joined later in the process, for a total of 12 participating entities:

- State of Alaska (since 2014)
- USFWS (since 2014)
- Native Village of Chuathbaluk (since 2014)
- Nulato Village
- Native Village of Shaktoolik
- Iqurmiut Traditional Council
- Nikolai Village
- Anvik Village
- Stebbins Community Association
- Holy Cross Village
- Native Village of Unalakleet
- Organized Village of Grayling

During 2014 to 2016, the initial three CAs were involved in many multiple-day and multiple-week meetings and workshops that involved development and refinement of alternatives. After these initial alternative development work sessions, CAs mostly participated on document reviews. Since the August 2018 CA requests from multiple tribes and tribal groups and subsequent CA additions, the BLM held an additional seven CA meetings from November 2018 to July 2019. These meetings were held with one or more of the CAs leading up to and after the publication of the Draft RMP/EIS. The seven meetings do not include CA meetings held in communities when BLM visited as part of the Draft RMP/EIS public involvement community visits.

9.2 BLM-Alaska Resource Advisory Council Collaboration

A resource advisory council (RAC) is a committee established by the Secretary of the Interior to provide advice or recommendations to BLM management (BLM 2005a).

RACs are generally composed of 15 members of the public representing different areas of expertise. The Secretary appoints Council members based on their ability to provide informed, objective advice on a broad array of public lands issues and their commitment to collaboration in seeking solutions to those issues. The BLM–Alaska RAC membership includes a cross section of Alaskans from around the state representing energy, tourism, and commercial recreation interests; environmental, archaeological, or historic interests; and elected officials, Alaska Native organizations, and the public at large.

Members of the BLM–Alaska RAC are on the BSWI mailing list and received the postcards announcing the start of the BSWI planning process in July 2013 and the scoping meeting schedule. The BLM also presented about the BSWI RMP at the BLM–Alaska RAC’s October 2013 meeting in Anchorage and April 2014 meeting in Fairbanks. One RAC member attended the November 20, 2013, public scoping meeting in Bethel. Several current and former RAC members attended the December 4, 2013, public scoping meeting in Anchorage. The BLM continued to seek input from the BLM–Alaska RAC throughout the BSWI planning process.

9.3 Tribal Government-to-Government and ANCSA Corporation Consultation

Consultation with American Indian tribes is part of the NEPA process and a requirement of FLPMA. Tribal consultation can take several forms. Participating as a CA, as described above, involves both sides signing a formal MOU. Government-to-government consultation may occur at any time and does not require formal agreements between the governing agencies. Both types of consultation, as well as public meetings and requests for input from Alaska Native communities in the planning area, took place during the development of the Draft RMP/EIS and the Proposed RMP/Final EIS.

Government-to-government meetings may be requested to occur in-person or over the phone; it is the right of tribal governments to request them. Fourteen government-to-government meetings were held in the planning area from November 2018 to May 2020. Information about and invitations to initiate government-to-government meetings were sent out at multiple times to all tribes in the planning area.

DOI policy states that agencies “consult with Native Corporations on the same basis as Indian tribes” under Executive Order No. 13175 when taking departmental action that has a “substantial direct effect” on corporations organized under ANCSA. In June 2013, BLM sent letters of invitation to 48 ANCSA corporations to initiate consultation, per department policy. BLM has worked to keep interested Native

corporations informed and involved. The BLM met with and gave the Draft RMP/EIS presentation to the Calista Corporation and Doyon Ltd. in May 2019.

Government-to-government consultation and ANCSA corporation consultation were not limited to public comment periods and continued throughout the planning process to ensure consideration of the concerns of tribes and ANCSA corporations during development of the BSWI RMP/EIS.

10. Availability of the Approved RMP

Copies of the ROD and Approved RMP are available on request on the BLM website at <https://eplanning.blm.gov/eplanning-ui/project/36665/510> and on request from the following locations:

BLM Anchorage Field Office, 4700 BLM Road, Anchorage, Alaska 99507, (907) 267-1246

BLM Alaska Public Information Center, James M. Fitzgerald Federal Building, 222 West 7th Avenue, Anchorage, Alaska 99513, (907) 271-5960

BLM Fairbanks District Office, 222 University Avenue, Fairbanks, Alaska 99709, (907) 474-2200

Alaska Resources Library & Information Services, 3211 Providence Drive, Suite 111, Anchorage, Alaska 99508, (907) 786-7651

11. Approval

I hereby approve this RMP, as reflected in this Record of Decision and Approved RMP package. My approval constitutes the final decision of the Department of the Interior and, in accordance with the regulations at 43 CFR § 4.410(a)(3), is not subject to appeal under Departmental regulations at 43 CFR Part 4.

APPROVED BY:



David L. Bernhardt
Secretary of the Interior

11/15/21

Date

II. APPROVED RESOURCE MANAGEMENT PLAN

1. Introduction

The Bureau of Land Management (BLM), Anchorage Field Office (AFO) prepared the Bering Sea–Western Interior (BSWI) Planning Area (planning area) Resource Management Plan (RMP) to provide comprehensive current and future management of BLM-managed lands in the planning area. This is the Approved RMP for the public lands within the BSWI planning area administered by the BLM AFO.

The RMP was prepared in compliance with the BLM’s planning regulations (Title 43 Code of Federal Regulations [CFR] Part 1600), under the authority of the Federal Land Policy and Management Act of 1976 (FLPMA). This document also meets the requirements of the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality (CEQ) Regulations for Implementing the NEPA (40 CFR 1500-1508), and requirements of the BLM’s NEPA Handbook, 1790-1 (BLM 2008).

Decisions in this Approved RMP apply to the BSWI planning area. Maps of decisions and decision-related baseline information (e.g., permafrost areas, ecoregions, etc.) are shown in Appendix A. The Approved RMP adopts management described in Management Actions Common to All Alternatives and management actions specific to Alternative E, as presented in the BSWI Proposed RMP/Final Environmental Impact Statement (EIS), with the exception that an Alternative D management action was selected for management of motorized watercraft in non-navigable waters on BLM-managed public lands in the proposed Innoko Bottoms Priority Wildlife Habitat Area (no restrictions). Stipulations, best management practices (BMPs), and standard operating procedures (SOPs) applicable to this Approved RMP are described in Appendix B, with modifications described in Section 3.4 of the BSWI Record of Decision (ROD).

Additionally, between the publication of the Proposed RMP/Final EIS and this ROD the BLM became aware that approximately 1,936 acres of the planning area are within designated polar bear critical habitat. In light of that information and to ensure consistent management of resources in and around the critical habitat, the decisions in the Approved RMP for the lands described below will be deferred to a future land use plan amendment in order to ensure appropriate management direction consistent with the purpose of the polar bear critical habitat designation. In the interim, the BLM will not approve activities in the areas described here until a land use plan amendment is completed. The lands affected by this change are as follows:

- K21S12W- secs. 32 and 33 (all lands in twp) - 85 acres
- K22S12W- secs. 3, 4, 5, 8, 17 thru 20, and 30 - 3,294.3 acres
- K22S13W- secs. 25, 26, 35, and 36 (all lands in twp) - 1,052.39 acres
- K23S13W- secs. 1, 2, 11, 14, 15, 16, 17, 19, and 20 - 3,831.46 acres
- K23S14W- secs. 24 thru 29, 31, 32, and USS 14458 - 3,005.96 acres

The BLM initiated development of this Approved RMP with publication of a Notice of Intent to prepare an RMP and associated EIS in the *Federal Register* on July 18, 2013. A Notice of Planning Area Boundary Changes for Bureau of Land Management Resource Management Plans in Alaska was issued on October 7, 2015. This boundary change resulted in shifting 2.8 million acres of the Central Yukon planning area, managed by the Fairbanks District Office, into the BSWI planning area, managed by the Anchorage District Office, and removing three islands from the BSWI planning area. An Amendment to

Notices of Intent to Prepare Resource Management Plans for Central Yukon and Bering Sea–Western Interior Planning Areas and Associated Environmental Impact Statements was issued concurrently.

Over the course of 7 years since the original Notice of Intent, the BLM conducted public outreach and involved diverse interests as part of plan development.

The Environmental Protection Agency’s (EPA’s) March 15, 2019, publication of the Notice of Availability for the Draft RMP/EIS in the *Federal Register* initiated the public comment period. The public comment period on the Draft RMP/EIS ended on June 13, 2019.

The EPA published the Notice of Availability for the BSWI Proposed RMP/Final EIS in the *Federal Register* on December 4, 2020 (85 *Federal Register* 234), initiating the 30-day protest period (43 CFR 1610.5-2). The protest period ended on January 4, 2021, and the BLM subsequently resolved each protest submitted. In doing so, the State Director’s Proposed RMP was upheld in each instance.

As required by BLM regulations in 43 CFR 1610.3-2 (e) to ensure consistency with State government plans or policies, the BLM initiated the Alaska Governor’s Consistency Review for the BSWI Proposed RMP/Final EIS by letter from the BLM State Director dated November 30, 2020. The consistency review period concluded on January 4, 2021, when a response from the State of Alaska was received with eight issues identifying potential inconsistencies of the Proposed RMP with the State’s land use plans, programs, and policies. The BLM determined that the Proposed RMP was consistent with the State’s land use plans, programs, and policies with two exceptions and made the following decisions as a result:

- The Alternative D management action indicating no restrictions on motorized watercraft in non-navigable waterways on BLM-managed public lands in the Innoko Bottoms Priority Wildlife Habitat Area was selected.
- The Alternative D management action indicating no Community Focus Zones within the planning area was selected.

1.1 Purpose and Need for the Resource Management Plan

The purpose of this RMP is to make decisions that guide future land management actions and subsequent site-specific implementation decisions. The decisions will establish goals and objectives for resource management (desired outcomes) and the identified uses (allocations) that are allowable, restricted, or prohibited to achieve the goals and objectives. Management actions are also identified where they could help to achieve desired outcomes and include measures or criteria that could guide day-to-day as well as long-term management.

The need for this RMP is to provide guidance that will address the substantial alterations in resources and circumstances, such as changes to locations of resources or their abundance, climate change, and changes in transportation. Additionally, alterations to laws, policies, and regulations have occurred in the planning area since 1981. The 1981 Southwest Management Framework Plan (SWMFP) and the 1986 Central Yukon RMP (CYRMP) lack guidance garnered from professionals in the environmental, natural, and social science fields, BLM staff, and the public, including Alaska Natives and subsistence resource users. These current land use plans do not take into consideration current management policy; current issues of environmental and social concern; the need to prevent unnecessary or undue degradation of the land, resources, and the environment; or the influence of modern land and resource management tools and techniques.

1.2 Lands within the BSWI Planning Area

1.2.1 Planning Area

The planning area extends south from the Northwest Alaska and Lower Yukon watersheds (Hydrologic Unit Code [HUC] 4) to the northern portion of the Southwest Alaska watershed (HUC 4), including all lands west of Denali National Park and Preserve to the Bering Sea, and covers 13.5 million acres managed by the BLM within the broader area of 62.3 million acres. There are very few roads in the planning area; the longest is a 43-mile gravel road that connects Takotna on the Kuskokwim River with the historic mining community of Ophir on the Innoko River. Figure II-1 provides a general overview of the planning area.

Bering Sea–Western Interior
Record of Decision and Approved Resource Management Plan

Approved Resource Management Plan

Bering Sea–Western Interior RMP Planning Area
Planning Area Overview

U.S. DEPARTMENT OF THE INTERIOR | BUREAU OF LAND MANAGEMENT | ALASKA | BERING SEA–WESTERN INTERIOR RMP

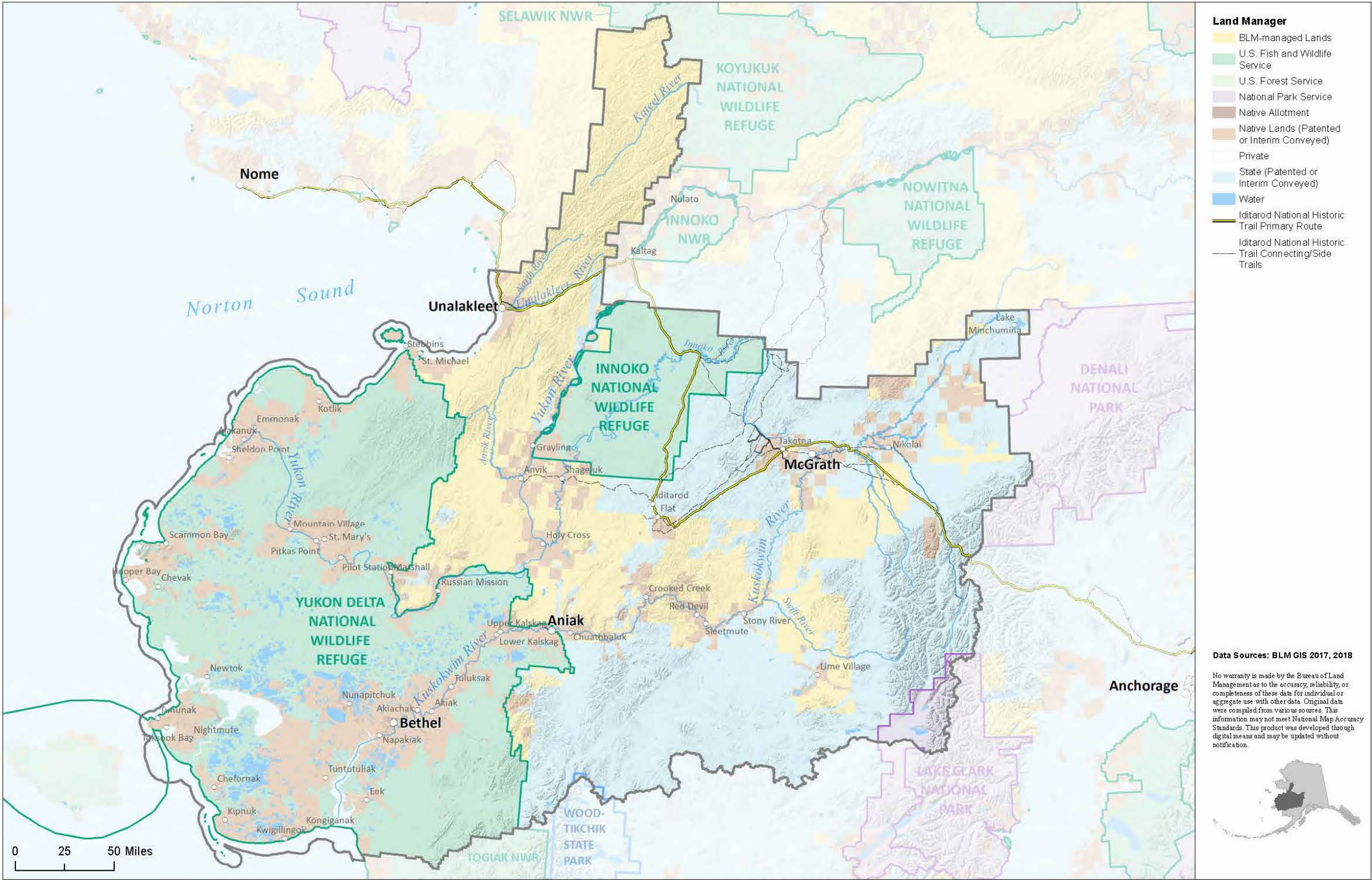


Figure II-1: Bering Sea–Western Interior RMP Planning Area

The planning area includes BLM-managed lands selected by the State of Alaska or Alaska Native corporations that have not been conveyed; United States (U.S.) Fish and Wildlife Service (USFWS)-managed National Wildlife Refuges (NWRs) that fall partially (Yukon Delta NWR) or wholly (Innoko Unit of the Innoko NWR) within the planning area; and Lake Clark National Park and Wood-Tikchik State Park, which reach into the southeastern portion of the planning area. Management direction and actions in this RMP only apply to BLM-managed lands within the planning area. Table II-1 includes the land status acreages within the planning area.

Table II-1: Land Status Acreages within the Planning Area

Administering Agency/Ownership	Acreage
BLM Administered (no selections by State of Alaska or Alaska Native Claims Settlement Act [ANCSA] corporation)	10,711,424
BLM Administered (Encumbered with State Selection)	2,611,353
BLM Administered (Encumbered with ANCSA Selection)	143,220
State of Alaska owned (Tentatively Approved or Patented)	18,126,167
ANCSA corporation owned (Interim Conveyed or Patented)	9,709,062
USFWS Administered	18,651,212
National Park Service (NPS) Administered	562,035
Private (includes Native Allotment 437,565 acres)	439,528
Military	22,882
Water	1,301,557
TOTAL	62,278,440

Note: BLM-administered acreages in this table are based on a combination of 2020 and 2016 land status GIS data.

Sixty-five rural communities are found within the planning area. Based on 2010 data from the U.S. Census Bureau for these communities, the population of the planning area is approximately 25,000 (U.S. Census 2010a). Of these communities, there are 27 communities and census-designated places in the vicinity of BLM-managed public land within or near the planning area. These communities range in population from 23 (Red Devil) to 6,080 (Bethel—the largest population center in the region), with 8 having a 2010 population under 100, 12 with a population between 100 and 500, and 7 with a population over 500 (U.S. Census 2010b).

The State of Alaska’s primary administrative divisions are referred to as boroughs. There are small portions of four organized boroughs in the planning area: Denali Borough, Lake and Peninsula Borough, Matanuska-Susitna Borough, and Kenai Peninsula Borough. Collectively, 942,292 acres (1.5 percent) of the planning area is within one of these organized boroughs; the remainder is within the Unorganized Borough.

1.3 Scoping/Issues

The *Federal Register* published BLM’s Notice of Intent to develop the RMP/EIS on July 18, 2013 (78 *Federal Register* 42970). The scoping period was open for 180 days. The BLM requested agencies, tribes, groups, and the public to identify issues and concerns within the planning area. Scoping comments collected at public meetings and by email, letters, and phone calls were used to identify issues and define the scope of analysis for management alternatives. Meetings were held in 10 communities with proximity to substantial blocks of BLM lands, the Iditarod National Historic Trail (INHT), the Unalakleet Wild River Corridor, and major watersheds in the planning area (Kuskokwim and Yukon Rivers). Additional

detail on the public outreach efforts related to the scoping process is included in the *Scoping Summary Report* (BLM 2014).

1.3.1 Issues Addressed

The BLM received 49 comment letters and 60 form letters from agencies, tribal members, industry organizations, interest groups, and individuals during the scoping process (BLM 2014). Additionally, nearly 900 comments were received during preliminary alternatives development in 2015 (BLM 2015b). Based on scoping, 27 planning issues were identified (see Table II-2). See the BSWI *Scoping Summary Report* (BLM 2014) for the list of commenters and summary of the comments and additional issues not expressed during the scoping period. The BLM used the planning issues to help guide the development of a reasonable range of alternative management strategies and to assist in determining the scope of impact analysis for the Proposed RMP/Final EIS.

Table II-2: Resources with Issues Identified During Scoping

Nonnative Invasive Species Threats (including plant, terrestrial, and aquatic species)	Forestry and Woodland Products
Vegetative Communities	Reindeer Grazing
Soil, Water, Air	Renewable Energy
Climate / Climate Change	Lands and Realty
Fish and Aquatic Species	Recreation, Visitor Services, and Recreation Authorization Permits
Wildlife	Trails and Travel Management including Off-Highway Vehicles (OHVs)
Special Status Species	Areas of Critical Environmental Concern
Wildland Fire Ecology and Management	Wild and Scenic Rivers
Cultural Resources	National Trails
Paleontological Resources	Interpretation and Environmental Education
Visual Resources	Subsistence
Lands with Wilderness Characteristics	Social, Economic (Non-market Values), and Environmental Justice
Mineral Management: Leasable Fluid and Solid Minerals	Public Safety and Hazardous Materials
Mineral Management: Locatable and Salable Minerals	

1.3.2 Issues Considered but Not Further Analyzed

Comments addressing issues outside of the scope of the RMP include those pertaining to reservation of ANCSA 17(b) easements and issues that dealt with State of Alaska jurisdiction, including hunting regulations, law enforcement, and predator control. These issues are beyond the scope of the RMP because they involve decisions the BLM does not have authority to make at the planning level, or the issues are not appropriate planning decisions. These issues are discussed in more detail in the BSWI *Scoping Summary Report* (BLM 2014).

1.4 Planning Criteria and Legislative Constraints

FLPMA is the primary authority for the BLM's management of public lands. This law provides the policy by which BLM-managed lands will be managed and establishes provisions for land use planning, land acquisition and disposition, administration, range management, rights-of-way (ROWs), designated management areas, and the repeal of certain laws and statutes. NEPA provides the basic national charter for environmental responsibility and requires the consideration and public availability of information regarding the environmental impacts of major federal actions significantly affecting the quality of the

human environment. In concert, FLPMA and NEPA provide the overarching guidance for administering all BLM activities.

The BLM develops planning criteria to establish standards, rules, and other factors to guide the planning process. Planning criteria assist the BLM in defining the scope of work and estimating the extent of data collection and analysis and help guide the final plan selection and provide a basis for judging the responsiveness of the planning options. Prior to the public scoping process, the BLM internally developed 19 preliminary planning criteria as described on page 36 of the *Scoping Summary Report* (BLM 2014). These criteria focus the BSWI planning effort and guide decision-making identified in the Notice of Intent (78 *Federal Register* 42970).

All management direction and actions developed as part of the BLM planning process are subject to valid existing rights and must meet the objectives of BLM's multiple-use management mandate and responsibilities (FLPMA §§ 202[c] and [e]). Valid existing rights include all valid lease, permit, ROWs, or other land use rights or authorizations in effect on the date of approval of this RMP. Although the courts may recognize adjudicated Revised Statute 2477 ROWs as valid existing rights, current BLM policy does not allow BLM to consider unadjudicated Revised Statute 2477 claims as valid existing rights. The current moratorium precluding the BLM from processing Revised Statute 2477 claims is still in effect, making Revised Statute 2477 assertions a legal issue beyond the scope of this planning effort.

The Alaska Statehood Act, Alaska National Interest Lands Conservation Act (ANILCA), and ANCSA, as well as other policies and legislation, could influence decisions, constrain alternatives, or affect implementation of the Approved RMP. Appendix C provides a listing of the policy and program guidance used for developing the RMP. The list is not intended to be comprehensive but rather provide an indication of the key laws and regulations that govern resource management in the planning area.

1.5 Planning Process

The BSWI RMP was initiated under the authority of Section 202(f) of FLPMA and guided by BLM planning regulations in 43 CFR 1600. Additionally, the EIS is subject to Section 202(c) of NEPA and guided by the CEQ regulations in 40 CFR 1500.

The BLM uses a multistep planning process when developing RMPs, as required by 43 CFR 1600 and illustrated in the BLM's Land Use Planning Handbook (BLM 2005a). The planning process is designed to help the BLM identify the uses of BLM-managed lands desired by the public. The process considers these uses to the extent they are consistent with the laws established by Congress and the policies of the executive branch of the federal government. The planning process is issue driven. The BLM used the public scoping process to identify planning issues (noted above) to direct the development of the BSWI RMP. The scoping process also was used to introduce the public to planning criteria.

Title II, Section 202, of FLPMA directs the BLM to coordinate planning efforts with Native American tribes, other federal departments, and agencies of the State and local governments as part of its land use planning process. The BLM is also directed to integrate NEPA requirements with other environmental review and consultation requirements to reduce paperwork and delays (40 CFR 1500.4-5). The BLM coordinated with Native American tribes and other agencies and was consistent with other plans through ongoing communications, meetings, and collaboration with an interdisciplinary team, which includes BLM specialists and federal, State, and local agencies.

The BSWI RMP Interdisciplinary (ID) Team used the BLM planning process according to BLM's Land Use Planning Handbook (BLM 2005a) to develop a range of reasonable alternatives for the RMP that would (1) meet multiple-use and sustained yield mandates of FLPMA; (2) address the planning issues compiled from the public, cooperating agencies, and the BLM ID Team; and (3) fulfill the purpose and need for the RMP (see Section 1.1) by addressing management needs and opportunities for the planning area. The alternatives development process began in 2013, with the scoping effort and continued through 2015.

1.6 Related Plans

According to BLM planning regulations found in 43 CFR 1610, BLM RMPs and amendments must be consistent, to the extent practical, with officially approved or adopted resource-related plans of State and local governments, other federal agencies, and tribal governments. State agency and other federal agency plans for neighboring areas or cross-jurisdictional purposes include the USFWS, NPS, BLM, and State of Alaska. The BSWI RMP will strive to be consistent with other BLM-administered plans pertaining to lands included in and surrounding the planning area: *Iditarod National Historic Trail, Seward to Nome Route: A Comprehensive Management Plan* (BLM 1986b); *Unalakleet National Wild River Management Plan* (BLM 1983); Alaska Statewide Land Health Standards (BLM n.d.); *Decision Record for the Land Use Plan Amendment for Wildland Fire and Fuels Management for Alaska Environmental Assessment* (BLM 2005b); and *Alaska Interagency Wildland Fire Management Plan* (Alaska Wildland Fire Coordinating Group 2016). Appendix C provides a listing of the management regulations used to develop the RMP.

1.7 Policy

This RMP is consistent with and incorporates requirements identified in various laws, regulations, and policies. These include Executive Orders, legislative designations, and court settlements/rulings. The policies and decisions that existed before this RMP are outside the scope of the RMP but have influenced the decisions and constrained the alternatives and are needed to understand management of the Decision Area.

2. Management Decisions

This section of the Approved RMP presents the goals, objectives, actions, allowable uses, and stipulations established for BLM-managed lands in the BSWI planning area. Most of the desired future conditions are long range and are assumed to require a period of time to achieve. These management decisions are presented by program area. Not all types of decisions were identified for each program.

Implementation- or activity-level decisions are those that act to implement land use plan decisions. These types of decisions require appropriate site-specific planning and NEPA analysis. Implementation decisions generally constitute the BLM's final approval allowing on-the-ground actions to proceed and are generally appealable to the Interior Board of Land Appeals under 43 CFR 4.410.

Mitigation standards are included in Appendix D.

2.1 Resources

2.1.1 Air Quality

Goals

1. Protect air quality and related resource values within the planning area.
2. Coordinate and cooperate with the Alaska Department of Environmental Conservation (ADEC), other federal land management agencies, and adjacent landowners to resolve air quality issues.

Objectives

1. Air quality and air quality-related values should remain comparable to historical levels and are not degraded by the BLM or BLM-authorized activities. This may be measured, as applicable, through monitoring of appropriate indicators such as visibility, and concentrations of criteria pollutants subject to National Ambient Air Quality Standards (NAAQS). This monitoring would occur as necessary at the project implementation/permitting level.
2. All activities and authorized uses on BLM-managed public lands in the planning area will comply with applicable federal, State, tribal, and local air quality regulations, as required by the Clean Air Act, Executive Order 12088, and the Alaska State Implementation Plan.
3. Activities authorized by BLM should not lead to exceedances of the national or State Ambient Air Quality Standards within the planning area.
4. Permitting of new stationary sources (as outlined in 18 Alaska Administrative Code 50.306) on BLM-managed public lands will adhere to Prevention of Significant Deterioration to prevent new non-attainment areas.
5. Air quality, visibility, and other related values in adjacent mandatory federal Class I and Class II Sensitive areas shall meet regulatory standards.
6. The effects of smoke on human health, communities, recreation, and tourism should be minimized to the extent practicable and appropriately mitigated in all prescribed fire management activities.

Decisions

Air-1: All BLM-permitted actions with the potential for criteria-pollutant emissions, greenhouse gases, air quality-related values, national emissions standards for hazardous air pollutants, or volatile organic compounds shall use BMPs to meet the NAAQS and reduce emissions to the extent possible.

Air-2: The need for detailed air quality analysis, such as dispersion modeling and mitigation to reduce emissions to a level that meets NAAQS and reduce greenhouse gas emissions to the extent possible, shall be made at the implementation level.

Air-3: Where BLM-permitted activities have the potential to affect air quality in or near Class I areas, sensitive receptors, urban interface areas, and in or near areas that contain sensitive resources in the planning area, analysis and mitigation will be considered.

Air-4: Best management dust abatement procedures may be required to reduce particulate emissions related to permitted roads and road development. Dust abatement methods would be decided at the

implementation level and may include methods such as clearing minimal vegetation, mulching, construction of wind barriers, applying water to cleared areas, reducing vehicular speed limits and chemical dust suppressants to trafficked areas.

Air-5: Transportation ROWs near communities require design features or mitigation measures to minimize fugitive dust emissions from travel on unpaved surfaces.

Air-6: Proposals that introduce new pollutant effects within the INHT National Trail Management Corridor (NTMC) (see Section 2.3.1) and the Unalakleet Wild River Corridor (see Section 2.3.2) shall be authorized only if they do not cause more than short-term, minimal adverse impacts on air quality.

Air-7: All prescribed burning will be conducted in accordance with guidance and direction in the Alaska Enhanced Smoke Management Plan (ADEC 2015) and any future updates.

Air-8: Consistent with shared wildland fire management responsibilities, the BLM will continue to work with ADEC in the siting and operation of emergency air quality monitoring stations when necessary to assess smoke impacts from wildland fire (BLM Manual 7300, Air Resources Management Program; BLM 2009a).

Air-9: Permitted activities will adhere to the Noise Control Act of 1972 and the Quiet Communities Act of 1978.

Air-10: BMPs may be applied to BLM-authorized activities to reduce emissions of greenhouse gases, where feasible.

Air-11: Monitoring of NAAQS criteria pollutants may be conducted as deemed necessary by the Authorized Officer (AO), and pollutant control measures would be adjusted as necessary to continue to meet NAAQS for criteria pollutants, including particulates. An estimate of current and future downstream greenhouse gas emissions that are attributed to the project actions would be included in the air analysis.

2.1.2 Soils

Goals

1. Manage BLM-authorized activities to make progress toward properly functioning soil conditions with soil properties appropriate to specific climate and landform. These properties include, but are not limited to, bulk density, infiltration/permeability rates, and moisture storage.
2. Manage actions on BLM-managed public lands in the planning area to provide for long-term sustainability of soil including protection from vegetation trampling/removal, soil compaction, and accelerated soil erosion.
3. Wherever practicable, encourage that surface-disturbing development be located in previously developed or disturbed areas.
4. Increase efforts to inventory soil resources in the planning area.

Objectives

1. Implement proactive stabilization or other appropriate rehabilitation measures in response to anthropogenic or non-anthropogenic events that would impact public health and safety or sensitive ecosystem values.

2. Prioritize proactive reclamation on abandoned mine lands.
3. Reclaim soils in the planning area where oil spills or other hazardous material releases have impaired soil quality.
4. On an implementation-level basis, harden identified preferred routes that provide primary access to available resources, allowing for rehabilitation and restoration of redundant routes to reduce accelerated soil erosion and increased soil compaction. This may be done through implementation-level travel planning.
5. In areas designated as allowing summer OHV use, monitor and identify thresholds for evaluating vulnerability to accelerated erosion and use BMPs and closures to limit erosion and delivery of sediment to aquatic resource areas.
6. Promote maintenance of soil properties and vegetation conditions consistent with the potential/capability of the site.
7. Conduct regular and routine monitoring of areas affected by BLM-permitted activities. Monitoring requirements would be determined on a project-by-project basis.
8. To the extent possible, monitor modifications to the landscapes such as soil disturbance from fire, vegetation manipulation, and climate change. Use this information to prioritize stabilization and rehabilitation to protect human health/safety and the functions of critical ecosystems.
9. Reduce accelerated erosion/compaction from mining and other activities through use of BMPs, concurrent reclamation, and frequent monitoring.
10. Apply BMPs to mitigate for BLM-permitted surface-disturbing activities.
11. Coordinate with the Natural Resources Conservation Service to prioritize soil inventory efforts to the Unalakleet Wild River Corridor, high-value watersheds (HVs), and any other identified sensitive/critical areas. Expand these inventory efforts to adjacent areas as funding permits.
12. Protect sensitive/critical soil resources within high-value watersheds and other high priority areas. These would be identified through Assessment, Inventory, and Monitoring (AIM) monitoring.
13. Collaborate with USFWS to sustain and strengthen landscape-level ecosystem resiliency to human change by managing for connectivity corridors.

Decisions

Soil-1: The BLM will prioritize (subject to availability of resources) monitoring of targeted sites observed to be at risk of degrading highly erodible soils using AIM terrestrial protocols for changes in condition associated with climate change. If that monitoring determines that soil properties are becoming impaired, timing and weight restrictions related to motorized travel, surface-disturbing development, and the use of heavy equipment may be modified as necessary to meet the original intent of any soils-related management.

Soil-2: In areas of permafrost thawing, the BLM will adjust requirements for surface-disturbing activities as necessary to prevent long-term erosion of associated soils and associated loss of soil function. This may include not authorizing activities in areas where the changing condition of the permafrost would not allow for the effective mitigation of erosion and soil function degradation (see Map A-1).

Soil-3: General Performance Standards for All BLM Permitted Surface-Disturbing Activities:

- The surface-disturbing activities are required to avoid unnecessary impacts and facilitate reclamation by following a reasonable and customary sequence of operations.
- Surface-disturbing activities are required to implement mitigation measures specified by the BLM to protect public lands.
- Surface-disturbing activities are required to initiate reclamation at the earliest practicable time on those portions of the disturbed area that the activity would not disturb further. Initial reclamation would stabilize soil, manage runoff, and otherwise prevent unnecessary and undue degradation.
- Prior to surface-disturbing activities, when feasible, remove, segregate, and preserve topsoil or other suitable growth medium for reclamation. The topsoil or growth medium would be applied after reshaping of the disturbed area has been completed and would be used to promote and sustain revegetation and, subsequently, to minimize erosion. Stockpiling activities must be implemented to preserve soil viability and promote concurrent reclamation.
- After surface-disturbing activities have been completed, permittees must revegetate disturbed lands by attaining approximately 70 percent or more native plant foliar cover for a minimum of two growing seasons, with a self-sustaining upward trend in native plant species foliar cover and an absence of nonnative plant species above baseline (i.e., nonnative invasive species [NNIS] cover is no greater than NNIS cover in the pre-existing condition or surrounding area). The BLM may develop site-specific revegetation criteria based on site-specific analysis as part of the baseline condition measurements.

Soil-4: Specific Performance Standards for Mining, as per 43 CFR 3809.420:

- Mining Waste: The operator would be required to manage all tailings, rock dumps, deleterious material or substances, and other waste produced from operations to minimize impacts.
- Performance of Reclamation: Operators would be required to reclaim disturbed areas in accordance with the performance standards and their approved reclamation plans.

Soil-5: The BLM will prioritize rehabilitation of soils impacted by human use to prevent unacceptable loss of permafrost, where it is not thought to be able to recover from disturbance naturally.

Soil-6: When applicable, the BLM will implement post-wildfire emergency stabilization and rehabilitation (ES&R) where soil degradation is unacceptable or to minimize threats to life or property and where soils are not thought to recover naturally.

Soil-7: BLM will use existing Rapid Ecoregional Assessment data or other comparable data in the cumulative impacts analysis for surface-disturbing activities.

Soil-8: BLM will coordinate the sharing of inventory and monitoring information with USFWS and National Resources Conservation Service (NRCS) to help discern causes of resource condition change.

Soil-9: Subject to valid existing rights, Excluded Unconveyed Claim Areas (EUCAs) within the planning area have the following soils-related management decisions:

- Soil Surveys – same as **Soil-11** below
- Floodplains and Springs – same as **Soil-12** below

Soil-10: Subject to ANILCA Title XI and valid existing rights, permafrost areas would be FLPMA ROW Avoidance Areas. Decisions to grant a ROW within a ROW Avoidance Area would be made by the AO after project-specific NEPA has been completed.

Soil-11: The need for soil surveys will be determined at the site-specific level for BLM-permitted activities. This determination would be based on the existing known soils information.

Soil-12: Determination of BLM-permitted surface-disturbing activities in the vicinity of floodplains and natural springs would be authorized at the AO's discretion.

2.1.3 Water Resources

Goals

1. Within the planning area, watersheds remain intact, healthy, and diverse. Water quality remains pristine, and impaired watersheds are to be rehabilitated. High-quality aquatic habitat is provided for native species and organisms throughout the planning area.
2. Ensure that watersheds are in, or are making significant progress toward, properly functioning physical condition, including their upland, riparian, wetland, and aquatic components; soil and plant condition support infiltration, soil moisture storage, and the release of water that are in balance with climate and landform flow (BLM Alaska Land Health Standards).
3. Ensure hydrologic cycle remains in balance and supports healthy biotic populations and communities (BLM Alaska Land Health Standards).
4. Protect, restore, and maintain the hydrologic regime (i.e., timing, magnitude, groundwater recharge, duration, stream network/groundwater connectivity) to achieve sustainable riparian, aquatic, and wetland habitats.
5. Protect, restore, and maintain the natural chemical, physical, and biological quality of surface water and groundwater, wetlands, and floodplains influenced by BLM resource management activities. Ensure full compliance with applicable federal and State laws and, to the extent appropriate, executive orders.
6. Protect, restore, and maintain the natural flow regime, water levels, and integrity of surface water and groundwater influenced by BLM resource management activities.
7. Ensure availability of surface water and groundwater for public land management purposes by acquiring and protecting federal reserved water rights and water rights obtained through State-based administrative and judicial systems. Ensure full compliance with applicable federal and State laws and, to the extent appropriate, executive orders.
8. Ensure water quality complies with federal and State water quality standards and achieves, or is making significant progress toward achieving, established BLM-management objectives, such as meeting wildlife needs (BLM Alaska Land Health Standards) by adopting federal and State water quality standards as specific BLM objectives for permitted activities.
9. Permit activities consistent with the maintenance of long-term watershed health and function.
10. Minimize sediment delivery to aquatic resource areas from BLM-permitted activities.

11. Increase baseline water quality/quantity and watershed characterization data collection to better inform BLM permitting decisions.
12. Manage Wild and Scenic Rivers (WSRs) and corridors to protect and enhance the values for which the river was designated with protection of water quality and quantity as a principal goal.
13. Develop measures to protect watershed health and function in the following areas: Nulato watershed, HVWs, WSRs, and High Priority Restoration Watersheds. Management in these areas should include the maintenance of water quality/quantity and timing of runoff.

Objectives

1. BLM-authorized activities, programs, and projects must comply with all applicable federal, State, tribal, and local water quality, wetland, and floodplain laws, statutes, regulations, standards, and State implementation plans (as amended), consistent with executive orders, the Clean Water Act, FLPMA, and BLM Manual 6720–Aquatic Resource Management (BLM 1991).
2. When applicable, collect data to determine if any streams in the planning area should be considered by ADEC for addition to the State of Alaska’s 303(d) impaired streams list.
3. Work to restore 303(d) listed streams or other streams affected from past land uses in the planning area to improve conditions toward potential natural condition (PNC; defined in Appendix E).
4. Conduct regular and routine monitoring of permitted surface-disturbing activities to ensure compliance with federal and State requirements for water quality and watershed health.
5. Reduce erosion and sediment delivery from mining activities through sound development of mining plans, adherence to State water quality controls and recommendations, implementation of BMPs, and frequent monitoring.
6. Require that prior to approving surface-disturbing activities that would impact streams, detailed stream reclamation plans are provided by the project proponent for approval by the BLM.
7. Establish buffer zones/setbacks in riparian areas to eliminate direct disturbance to the stream channel, where applicable.
8. Reduce accelerated erosion and sediment delivery from OHV travel through implementation-level travel planning using selected OHV type definitions, restricting the seasons of use, route definitions, route delineations, route improvements, and stream/riparian buffers (as defined in Appendix E), or by RMP-level decisions such as closing areas.
9. Reduce accelerated erosion and sediment from construction activity by following BMPs and standard operating procedures (SOPs).
10. Reduce non-point source pollution by requiring a Storm Water Engineering Plan (State of Alaska 18 Alaska Administrative Code 72.600) and a Stormwater Pollution Prevention Plan to manage materials, equipment, and runoff from the site for surface-disturbing permitted activities in sensitive watersheds (Nulato watershed, HVWs, and WSRs). Locatable mineral development are an exception (in areas outside the above identified sensitive watersheds) to this, in that this development would address non-point source pollution through Alaska Pollutant Discharge Elimination System (APDES) permitting requirements.
11. Prior to authorizing activities, the AO should require proof that Alaska Department of Fish and Game (ADF&G) Fish Habitat Permit permit(s) have been obtained for all activities that include stream crossings on BLM-managed lands.

12. Require that proposed projects that have the potential to impact groundwater, monitor groundwater characteristics.
13. Maintain ecological functions and processes necessary to protect and enhance the outstandingly remarkable values of rivers in the planning area that are included in the WSR System.
14. Prioritize application to the State of Alaska for water rights to preserve required flows in the Nulato watershed, HVWs, and WSR corridors.
 - The BLM should pursue instream flow reservations of water for the following rivers, and may prioritize additional rivers in HVWs:
 - Anvik River
 - Big River
 - Gisasa River
 - Kateel River
 - North River
 - Unalakleet River
 - Swift River
 - The purpose of pursuing these water rights may include the following:
 - Maintain year-round flows necessary to sustain fish and wildlife habitat, migration, and propagation within and adjacent to said river.
 - Maintain or improve recreational opportunities.
 - Meet navigation and transportation goals.
 - Meet sanitary and water quality goals.
15. Compile summary reports on a rotational basis (every 3 or 4 years, or more frequently as necessary) for inventory and monitoring data collected to support WSR instream flow water rights and water quality. Water rights for anadromous fish streams in the planning area should be managed as per BLM Manual 7250–Water Rights (BLM 2013a). The objectives of the BLM water rights program are as follows:
 - Acquire and perfect federal reserved and State-based water rights necessary to carry out public land management purposes.
 - Protect federal reserved water rights and water rights obtained through State-based administrative and judicial systems. Ensure full compliance with applicable State laws, federal laws, and executive orders.
 - Ensure availability of water for public land management purposes by acquiring and protecting BLM-managed water rights, as part of an overall strategy that may include other cooperative techniques for insuring water availability. Water rights that result in sole title of said water to the U.S. for uses on federal land should be the primary objective, if possible. In certain circumstances, an opportunity to acquire water from private lands to be used on federal lands and federal resources without sole title to the water may be considered.
 - Document BLM-managed water rights in accordance with the file and records maintenance protocols described in Section 1.6 of BLM Manual 7250–Water Rights (BLM 2013a).

Decisions

Water-1: Follow Total Maximum Daily Load recommendations on streams listed under Section 303(d) of the Clean Water Act.

Water-2: To minimize watershed resource impacts, all mining activities will incorporate environmental BMPs and techniques that prevent Unnecessary or Undue Degradation and the attainment of the 43 CFR 3809.420 performance standards.

Water-3: Technology and practices must be used such that, at the completion of reclamation, the affected stream segment would be, at minimum, geomorphically stable (as defined in Appendix E), with adequate vegetation to reduce erosion, dissipate stream energy, and promote the recovery of instream habitats per the BLM Handbook H-3809-1, Surface Management (BLM 2012a). Stream reclamation will be evaluated using metrics of geomorphic stability based on established science, policy, and/or regional datasets (e.g., AIM National Aquatic Monitoring Framework).

Water-4: Implement specific recommendations regarding surface and subsurface pipeline crossings found in the U.S. Department of the Interior (DOI) *Hydraulic Considerations for Pipelines Crossing Stream Channels* guidance document (DOI 2007) to prevent breakage and subsequent contamination.

Water-5: Subject to valid existing rights, for all surface-disturbing activity, the BLM will require compliance with general performance standards for all BLM-permitted surface-disturbing activity requirements, as described under Soils (see Section 2.1.2).

Water-6: Operators submitting new or modified plans are required to submit a detailed Reclamation Cost Estimate (RCE) before their Notice is acknowledged or Plan approved if they are operating within the 100-year floodplain. If the RCE calculations show that the reclamation cost could exceed one-third of the available bond pool assets, the operator may be required to provide an individual financial guarantee in accordance with the requirements of 43 CFR 3809 and within the provision of the Bond Pool Agreement between the Alaska Department of Natural Resources (ADNR) and BLM.

Water-7: The list of priority watersheds and community water supplies present shall be identified and maintained based on current information, including updates to the following values: essential fish habitat present, fish species diversity, anadromous species present (non-salmon), and unique or rare fishery resources or habitat (including BLM special status species [SSS]).

Water-8: Unalakleet Wild River federal reserve water rights shall be secured and protected. In addition, reservation of instream flows shall be pursued through the State of Alaska in HVWs, subject to funding constraints and management priorities.

Water-9: Permanent structures and disturbance greater than 5 acres should be avoided within the 100-year floodplain areas of streams in accordance with Executive Order 11990 and 11988 (excluding operations conducted under the Mining Law of 1872, as amended). Given the difficulty of remotely mapping the 100-year floodplain and the desire to convey the intent of the various management decisions to the reader, riparian buffer distances are used in this RMP as proxies for the 100-year floodplain as follows: 1st and 2nd order streams: 100 feet; 3rd order streams: 500 feet; 4th and 5th order streams: 1,000 feet; and 6th, 7th, 8th, and 9th order streams: 1,500 feet. See Appendix E for the full definition of the 100-year floodplain.

Water-10: Locatable Mining. In accordance with BLM Surface Management Handbook (BLM 2012a) and CFR 3809.420 performance standards, all new and modified reclamation plans will address riparian and fish habitat rehabilitation for activities that include stream disturbance and should incorporate measures to rehabilitate wildlife habitat and reestablish vegetation in uplands and floodplain areas. Reclamation and Monitoring plans shall include measurable criteria to effectively demonstrate reclamation stability and upward trending rehabilitation.

Water-11: Criteria for determining HVWs would include Aquatic Resource Value (ARV) and watersheds with a high ARV. High ARV: 13,070 river miles (RMs); 4,924,662 acres (199 HUC 12 watersheds). Total: 13,070 RMs; 4,924,662 acres. All management actions specific to HVWs would apply only to the 100-year floodplain within the HVWs (800,995 acres). See Appendix E for a detailed definition of HVWs and Map A-2 for HVWs.

Water-12: Locatable Mining. If NNIS are found, then a comprehensive NNIS plan would be developed to address monitoring, prevention, and abatement.

Water-13: Locatable Mining. Operators would comply with APDES requirements if they have anticipated discharges. It would be based on proposed discharge volume and location. ADEC may require an individual mixing zone permit to attain required water quality at discharge.

Water-14: Watershed Restoration. Watersheds prioritized for restoration will be those watersheds classified as Medium-High or High ARV and degraded habitats (see Appendix F for methods used to assess ARVs).

Water-15: Watershed Restoration. Baseline hydrological data will be required to establish reference for rehabilitation purposes. The BLM may require the operator to provide this data and would be available to advise operators on the exact type of baseline data and details needed to meet this requirement.

Water-16: Where applicable, the BLM will use existing Rapid Ecoregional Assessment data or other comparable data in the cumulative impacts analysis for surface-disturbing activities.

Water-17: Coordinate the sharing of inventory and monitoring information with USFWS to help discern causes of resource condition change.

Water-18: For work below the ordinary high-water mark (OHWM) in fish-bearing streams and all river crossings, a Title 16 permit from ADF&G Habitat Division is required, regardless of the AO's determination. In addition, the BLM will consult with the ADF&G Fish Passage Improvement Program to ensure fish passage standards are maintained.

2.1.4 Fisheries

Goals

1. Maintain and improve habitats that support or in the future could support native fish and aquatic species, especially those that are important to subsistence lifestyles and provide for rural economic opportunities.
2. Protect and maintain intact and healthy aquatic habitats in PNC to ensure connectivity across the landscape.

3. Reverse declines in the quality and quantity of riparian and aquatic habitats to ensure improvement of watershed health toward PNCs.
4. Increase the quality and quantity of fish habitats that support a broad natural diversity of fish and other aquatic species.
5. Manage, or restore to PNC, riparian and aquatic habitats.
6. The following goals are consistent with the 2006 National Fish Habitat Action Plan (Association of Fish and Wildlife Agencies 2006) and BLM Instruction Memorandum (IM) 2009-141, Guidance on the BLM Fisheries Program and the National Fish Habitat Action Plan (BLM 2009b):
 - Maintain water quality that satisfies State standards and provides for stable and productive riparian and aquatic ecosystems.
 - Maintain stream channel integrity, channel processes, and the sediment regime (including the elements of timing, volume, and character of sediment input and transport) under which the riparian and aquatic ecosystems developed in that specific ecoregion.
 - Manage and protect instream flows to support healthy riparian and aquatic habitats, which promote the stability and effective function of stream channels, and the ability to effectively route flood discharges.
 - Maintain natural timing and variability of the water table elevation in meadows and wetlands.
 - Manage for diversity and productivity of native plant communities in riparian zones.
 - Manage riparian vegetation to:
 - Provide an amount and distribution of large woody debris characteristic of natural aquatic and riparian ecosystems;
 - Provide adequate summer and winter thermal regulation within the riparian and aquatic zones; and
 - Help achieve rates of surface erosion, bank erosion, and channel migration characteristic of those under which the communities developed.
 - Maintain riparian and aquatic habitats necessary to foster the unique genetic fish stocks that evolved within the specific geo-climatic region.
 - Manage habitat to support populations of well-distributed native plant, vertebrate, and invertebrate populations that contribute to the viability of riparian-dependent communities.

Objectives

1. The BLM should manage aquatic habitats such that stream geomorphic and hydrologic functions are within PNC for the planning area as defined by the AIM Core Indicators listed below. On sites where permitted land use activities result in conditions that are outside of PNC, rehabilitation efforts would be designed to move conditions to within PNC in less than 5 years.
2. Similarly, the BLM should manage riparian-wetland habitats so functions are within the PNC for the planning area as defined by the AIM Core Indicators. On sites where permitted land-use activities result in conditions that are outside this PNC, rehabilitation efforts would be designed to move conditions to within PNC in less than 5 years.
3. AIM Core Indicators that should be managed to meet these objectives would include (but may not be limited to):

- Water quality
 - Acidity
 - Conductivity
 - Temperature
 - Turbidity
 - pH
 - Watershed function and instream habitat quality
 - Pool frequency
 - Streambed particle sizes
 - Bank stability and cover
 - Floodplain connectivity
 - Large woody debris
 - Ocular estimate of instream habitat complexity
 - Biodiversity and riparian habitat quality
 - Macroinvertebrate biological integrity
 - Ocular estimates of riparian vegetative type, cover, and structure
 - Canopy cover
 - Quantitative estimates of riparian vegetative cover, composition, and structure
 - Other potential indicators
 - Slope
 - Bankfull width
 - Floodplain area
4. Mining reclamation plans for the rehabilitation of fish habitat as required under 43 CFR 3809.420(b)(3)(ii)(E) should focus on three objectives. Typically, these requirements would be satisfied through the development of a site-specific reclamation plan using Natural Channel Design techniques and the best available science. These objectives are:
- Provide a stable channel form that is in balance with the surrounding landform such that channel features are maintained and the stream neither aggrades nor degrades. To achieve this, it would be necessary to submit to the BLM a design of a post-mining stream channel using morphological characteristics of the pre-disturbance channel and floodplain (e.g., bankfull and 100-year floodplain dimensions, slope, meander patterns, design flows and velocities, riffle-to-pool ratios, pool depths, substrate particle sizes at riffles and pools), which could be derived from field surveys of the area, remotely sensed information, or information from adjacent watersheds that exhibit similar characteristics as the watershed proposed for mining.
 - Provide sufficient lateral stability and riparian vegetation to effectively dissipate stream energy, prevent soil erosion, stabilize streambanks, and maintain water quality and floodplain function. In areas with low recovery potential and moderate to high erosion risk, such as newly constructed streambanks, the use of vegetation transplants and toe rock/wood in areas would be required.

- Provide instream habitat complexity similar to that of pre-disturbance levels through the use of instream structures (e.g., constructed riffles, riffle-steps).

Decisions

Management decisions specific to HVWs for applicable resources and resource uses are summarized in Table II-4. All management decisions specific to HVWs would apply only to the 100-year floodplains within the HVWs (800,995 acres).

Fish-1: All actions must be compliant with Executive Orders 11990 and 11988.

Fish-2: All activities below the OHWM must be compliant with Alaska Statutes Title 16, Fish and Game.

Fish-3: Any proposal to use or develop the lands, waters, or resources within the 100-year floodplain in an HVW must effectively mitigate or minimize impacts to ensure that aquatic and streambank riparian habitat conditions remain within PNC, and that floodplain riparian habitat recovery is accelerated to the maximum extent practicable.

Fish-4: BLM sensitive fish species and their habitat shall be managed to promote their conservation and to minimize the likelihood and need for listing under the Endangered Species Act (ESA). Proactive management and monitoring will occur, as appropriate (BLM-Alaska Sensitive Species List current version; see Appendix G).

Fish-5: Priority Species

- Table II-3 lists the current priority aquatic species that occur within the planning area. This species list may change based on habitat shifts due to climate change or changes in the regulatory environment.
- Where priority species are present, manage habitat to support self-sustaining populations. Priority aquatic species include those species that meet one or more of the following criteria:
 - Utilized for subsistence
 - Designated as BLM sensitive
 - Federally listed under the ESA
 - Recreationally important species
- The BLM will continue to cooperate and coordinate with State agencies, federal agencies, Native organizations, and other groups to ensure efficient and effective program implementation toward conservation of priority species.

Table II-3: Priority Fish Species in the Planning Area

Common Name	Scientific Name
Alaska brook lamprey	<i>Lampetra laskense</i>
Arctic grayling	<i>Thymallus arcticus</i>
Broad whitefish	<i>Coregonus nasus</i>
Burbot	<i>Lota</i>
Chinook salmon (king)	<i>Oncorhynchus tshawytscha</i>
Chum salmon	<i>Oncorhynchus keta</i>
Coho salmon	<i>Oncorhynchus kisutch</i>
Humpback whitefish	<i>Coregonus pidschian</i>

Common Name	Scientific Name
Least cisco	<i>Coregonus sardinella</i>
Northern pike	<i>Esox lucius</i>
Round whitefish	<i>Prosopium cylindraceum</i>
Sheefish	<i>Stenodus leucichthys</i>
Whitefish (unidentified)	Coregoninae

Fish-6: For surface-disturbing activities within HVWs (with the exception of locatable mineral development and permitted activities by other agencies [ADF&G] and subsistence users for permitted camps within HVWs), the disturbance buffer is the 100-year floodplain area. Subject to valid existing rights, no surface-disturbing activities or permanent structures will be allowed within these buffer areas.

Fish-7: Within HVWs, the BLM may issue permits for Commercial Woodland Harvest following the normal permitting process, consistent with an ongoing assessment of HVW health.

Fish-8: The following mineral decisions apply only to the 100-year floodplains within HVWs (800,995 acres):

- Open to salable mineral development (subject to terms and conditions)
- No surface occupancy (NSO) leasable
- Open to locatable entry (unless other restrictions apply for other resource protections)

Locatable development shall comply with all other management decisions listed here, and the following management would apply (subject to valid existing rights):

- No casual use suction dredging on non-navigable waterways within HVWs.

Fish-9: The entire geography of HVWs will be open to ROW location.

Fish-10: The following decisions apply within the 100-year floodplain within HVWs:

- OHV Designation = Limited
- Summer Casual and Subsistence Access:
 - Summer subsistence overland travel use is limited to all-terrain vehicles (ATVs) and utility terrain vehicles (UTVs) (as defined in Appendix E) if the AO determines that such use is causing or is likely to cause an adverse impact.
 - Summer OHV casual use is limited to existing routes (as shown in the BLM's current route inventory once implementation planning occurs).
- Winter Casual and Subsistence Access:
 - No limitations on winter subsistence and casual use cross-country travel.
 - Work in coordination with the State of Alaska to designate stream crossing routes; these routes would be designated within the 100-year floodplain.

Fish-11: Determinations on required data collection to support implementation of BMPs for fish passage design requirements/standards would be made at the implementation level.

Fish-12: Except for approved crossings and approved locatable mine plans and Notice Level Operations, alteration of the banks of a waterway and floodplains should be avoided for river crossings. If they cannot be avoided, BMPs would be used to reduce impacts; cut plugs or similar means would be used to restore stream banks. Waterways include natural features with sufficient water to create riparian habitat such as rivers, streams, deep and shallow lakes, tundra ponds, and shallow-water tracks (swales) in permafrost areas. Clearing of riparian vegetation along the riparian area shall be avoided whenever possible. Movement of equipment through riparian vegetation shall be avoided whenever possible.

Table II-4: Summary of Decisions Specific to the 100-year Floodplains within High-Value Watersheds

Decision Code	Decision
Water-8	Unalakleet Wild River federal reserve water rights shall be secured and protected. In addition, reservation of instream flows shall be pursued through the State of Alaska in HVWs, subject to funding constraints and management priorities.
Water-11	Criteria for determining HVWs would include ARV and watersheds with a high ARV. High ARV: 13,070 RMs; 4,924,662 acres (199 HUC 12 watersheds). Total: 13,070 RMs; 4,924,662 acres. All management actions specific to HVWs would apply only to the 100-year floodplain within the HVWs (800,995 acres). See Appendix E for a detailed definition of HVWs and Map A-2 for HVWs.
Fish-3:	Any proposal to use or develop the lands, waters, or resources within the 100-year floodplain in an HVW must effectively mitigate or minimize impacts to ensure that aquatic and streambank riparian habitat conditions remain within PNC, and that floodplain riparian habitat recovery is accelerated to the maximum extent practicable.
Fish-6	For surface-disturbing activities within HVWs (with the exception of locatable mineral development and permitted activities by other agencies [ADF&G] and subsistence users for permitted camps within HVWs), the disturbance buffer is the 100-year floodplain area. Subject to valid existing rights, no surface-disturbing activities or permanent structures will be allowed within these buffer areas.
Fish-7	Within HVWs, the BLM may issue permits for Commercial Woodland Harvest following the normal permitting process, consistent with an ongoing assessment of HVW health.
Fish-8	The following mineral decisions apply only to the 100-year floodplains within HVWs (800,995 acres): <ul style="list-style-type: none"> • Open to salable mineral development (subject to terms and conditions) • NSO leasable • Open to locatable entry (unless other restrictions apply for other resource protections) Locatable development shall comply with all other management decisions listed here, and the following management would apply (subject to valid existing rights): <ul style="list-style-type: none"> • No casual use suction dredging on non-navigable waterways within HVWs.
Fish-9	The entire geography of HVWs will be open to ROW location.
Fish-10	The following decisions apply within the 100-year floodplain within HVWs: OHV Designation = Limited Summer Casual and Subsistence Access: <ul style="list-style-type: none"> • Summer subsistence overland travel use is limited to ATVs and UTVs (as defined in Appendix E) if the AO determines that such use is causing or is likely to cause an adverse impact. • Summer OHV casual use is limited to existing routes (as shown in the BLM's current route inventory once implementation planning occurs). Winter Casual and Subsistence Access: <ul style="list-style-type: none"> • No limitations on winter subsistence and casual use cross-country travel. • Work in coordination with the State of Alaska to designate stream crossing routes; these routes would be designated within the 100-year floodplain.
Veg-6	Reclamation. All reclamation opportunities (including abandoned mine land) would be identified by ecoregion (see Map A-6). Based on current circumstance, vegetation reclamation priorities would be: <ul style="list-style-type: none"> • Areas in riparian zones • Areas with lichen-rich habitat • Areas near BLM-sensitive plant species or rare ecosystems • HVWs • Areas with potential for permafrost degradation
Forest-9	All BLM-managed public lands except for the Unalakleet Wild River will be open to permitting for Commercial Woodland Harvest. The BLM will issue permits for Commercial Woodland Harvest following the normal permitting process, consistent with an ongoing assessment of HVW health.
L&S Min-18	The 100-year floodplains of HVWs are open to salable mineral development (subject to terms and conditions).
LE Min-19	The 100-year floodplains of HVWs are NSO leasable.

Decision Code	Decision
HazMat-9	<p>Hazardous Materials. The BLM will prioritize cleanup of hazardous materials sites with eminent or existing discharge of hazardous materials based on the following criteria:</p> <ul style="list-style-type: none">• Threatens public health and safety• Adversely impacts drinking water sources• Occurs within or adjacent to HVWs• Would affect Essential Fish Habitat• Would affect cultural resources• Are on lands priority selected for conveyance to ANCSA Native corporations or the State of Alaska

2.1.5 Vegetation

Goals

1. Manage BLM-permitted and casual use activities to maintain functional ecosystems composed of healthy and diverse native communities as required by the BLM Alaska Land Health Standards. If changes in climate or other factors make managing for all native species not possible, the BLM would manage for healthy and diverse functioning ecosystems.
2. Sustain and strengthen landscape-level ecosystem resiliency to human-caused change by managing for connectivity of neighboring NWRs (Innoko NWR, Yukon Delta NWR, Koyukuk NWR, and Selawik NWR).
3. Prevent the listing of BLM sensitive plant species under the ESA.
4. Maintain adequate vegetation to prevent human-related erosion and degradation of permafrost.
5. Cooperate with adjacent landowners and jurisdictional authorities to develop a coordinated monitoring program to detect shifts in undisturbed vegetation condition.

Objectives

1. Prevent statistically significant divergence from natural variability in land cover composition. Specifically focus on preventing divergence from natural composition for the following land cover types (see Map A-3 for land cover composition in the planning area):
 - Tall shrub, low shrub, and floodplains (generalized moose habitat)
 - Lichen habitats (generalized caribou habitat)
 - White spruce on well-drained floodplains
 - Dwarf shrub and sparsely vegetated areas (generalized BLM sensitive plant species habitat)
 - Herbaceous wetlands
2. Desired future condition for the following AIM Indicators is to exist within PNC. On sites where permitted land use activities temporarily result in conditions that are outside of PNC, rehabilitation efforts would be designed to move conditions to within PNC after permitted activities have ceased.

Core Indicators:

- Amount of bare ground
- Vegetation composition

- Nonnative invasive plant species presence
- Plant species of management concern
- Vegetation height
- Proportion of soil surface in large canopy gaps
- Soil aggregate stability

Supplemental Indicators:

- Moss/duff depth
 - Active layer depth (when permafrost is present)
 - Other indicators that are agreed upon with neighboring landowners and partners to contribute to landscape-level datasets
3. Manage for long-term sustainability of vegetation in the planning area to a high condition such that no more than 10 percent of each vegetation cover type is affected by the human development footprint at a given time. At the time of plan development, the best available source of this information is provided by the University of Alaska Natural Heritage Program (now renamed Alaska Center for Conservation Science) Ecological Intactness Model. Future improved datasets, however, would be adopted. Landscape intactness in the planning area is shown in Map A-4.
 4. Protect or restore habitat for SSS flora. Manage for no net loss of SSS flora habitat. SSS locations within the planning area are shown in Map A-5.
 5. The BLM should work in partnership with the State of Alaska and other landowners to develop consistent reclamation standards to maintain overall ecosystem function.

Decisions

Veg-1: BLM sensitive plant species and their habitat will be managed to promote their conservation and to minimize the likelihood and need for listing under the ESA. Proactive management and monitoring will occur, as appropriate (BLM-Alaska Sensitive Species List current version; see Appendix G).

Veg-2: Landscape resiliency projects will be prioritized in parcels near or contributing to the resiliency of neighboring NWRs (Innoko NWR, Yukon Delta NWR, Koyukuk NWR, and Selawik NWR).

Veg-3: Monitoring. The BLM shall implement the AIM strategy, which uses a probabilistic sample design. A monitoring plan, as deemed appropriate for the planning area, would be developed at the implementation level.

Veg-4: Monitoring. The BLM shall, as deemed appropriate, prioritize targeted monitoring of the following rare ecosystems if found in the planning area. If identified, the BLM would determine appropriate management of:

- Pingos in Interior Alaska that support forests
- Tamarack (*Larix laricina*)–dominated associations
- Dunes that have been stabilized by forests, typically aspen/black spruce
- Limestone geologic substrate
- Serpentine geologic substrate

Veg-5: Monitoring. The BLM shall prioritize using State and Transition Models developed from approved Ecological Site Descriptions to evaluate changes in vegetative communities when completing land health assessments.

Veg-6: Reclamation. All reclamation opportunities (including abandoned mine land) would be identified by ecoregion (see Map A-6). Based on current circumstance, vegetation reclamation priorities would be:

- Areas in riparian zones
- Areas with lichen-rich habitat
- Areas near BLM-sensitive plant species or rare ecosystems
- HVWs
- Areas with potential for permafrost degradation

Veg-7: Mitigation. Subject to valid existing rights, areas found to have substantial surface disturbance will be prioritized (as determined by the AO) for rerouting, restoring, hardening, or closing unauthorized OHV trails, especially in wetlands or underlain with permafrost, to make progress toward restoring ecosystem health.

Veg-8: Surface-disturbing permits. All surface-disturbing BLM-permitted activities must adhere to reclamation general performance standards for all BLM-permitted surface-disturbing activity requirements described for Soils (Section 2.1.2), Water Resources (Section 2.1.3), and Fisheries (Section 2.1.4).

Veg-9: Surface-disturbing permits. For surface-disturbing BLM-permitted activities that require vegetation removal, where beneficial and feasible, BLM shall request the removal be conducted in such a way to help ensure a desired mix of successional stages (as defined in Appendix E) and to assist with maximizing revegetation success.

Veg-10: Surface-disturbing permits. Tundra areas are ROW avoidance. If tundra mat and vegetation is disturbed through permitted activities, and if technically and economically feasible, tundra mat would need to be preserved for reclamation/restoration.

Veg-11: Surface-disturbing permits. Existing roads and trails shall be utilized for access where feasible, rather than creating new roads and trails.

Veg-12: W Surface-disturbing permits. When possible, ground operations, including heavy equipment overland moves, can occur when frost and snow cover are at sufficient depths to prevent long-term damage to tundra or wetland vegetation and soils. Ground operations should be avoided during spring break-up.

Veg-13: Surface-disturbing permits. Winter trails or ice roads should be located and designed to minimize compaction of soils and the breakage, abrasion, compaction, or displacement of vegetation. Offsets may be required to avoid using the same route or track in subsequent years.

Veg-14: Surface-disturbing permits. When ground operations are required in snow-free months, routes that utilize naturally hardened sites will be prioritized. Methods and techniques shall be employed to minimize vegetation and soil disturbance (e.g., the use of air or watercraft, utilization of existing roads or

trails, or the use of low-ground-pressure vehicles and equipment). Ground operations should be avoided during spring break-up.

Veg-15: Surface-disturbing permits. Construction of road or trails in wetlands and floodplains should be avoided, where practicable.

Veg-16: Subject to valid existing rights, EUCAs within the planning area have the following vegetation-related management decisions applied:

- SSS Flora and Lichen Areas (caribou habitat) Travel Management Decisions – same as **Veg-17** below
- BLM-Permitted Surface Disturbance – same as **Veg-18** below
- Seeding and Planting for Reclamation/Restoration – same as **Veg-19** below

Veg-17: If monitoring shows observable or quantifiable degradation of dwarf shrub, lichen, or sparse vegetation habitats due to OHV use, then appropriate management actions would be developed and implemented. These actions could include:

- OHV use limitations
- Trail relocation
- Trail hardening
- Trail closure

Veg-18: If the BLM determines that a permitted action has the potential to impact special status flora or occurs in a unique vegetation community, a survey may be required, as deemed appropriate. Permittees would receive reporting instructions if special status flora are found as a result of the required survey. Site-specific measures may be required to prevent the listing of special status flora under the ESA.

Veg-19: If seeding or planting is part of reclamation/restoration, permittees must use native seed and propagules appropriate for existing climatic conditions and desired ecosystem function. If applicable, these would be native species as certified through the State of Alaska Plant Materials Center. Coordination with the Seeds of Success program must begin during the BLM permitting process, and final seed/propagule mixes must be approved by the BLM AO or the BLM national seed warehouse program. Nonnative seed and propagules will be allowed if determined appropriate for the trending climatic condition and ecosystem function and if native plants are either unavailable or unable to establish with current climatic conditions. This would be determined on a case-by-case basis and approved by the BLM AO.

2.1.6 Wildlife

Goals

1. Maintain, protect, and enhance habitats to support natural wildlife diversity, reproductive capability, and a healthy, self-sustaining population of all wildlife species.
2. Manage crucial, high-value, and unfragmented habitats as management priorities.

Objectives

1. Executive Order 13186, “Responsibilities of Federal Agencies to Protect Migratory Birds,” should be integrated into all activities with potential adverse impacts, wildlife management programs, and other resources including riparian-wetland habitat, raptor protection, fire, SSS, off-site mitigation and habitat enhancement.
2. Management would emphasize birds listed on the current USFWS Birds of Conservation Concern and Boreal Partners-in-Flight priority species (as updated). As specific habitat needs and population distribution to Birds of Conservation Concern and Partners-in-Flight priority species are identified, the BLM should use adaptive management strategies to further conserve habitat and avoid impacts on these species.
3. The BLM should establish buffer zones, date limitations, and/or seasonal restrictions around nests or cliff nesting habitats for raptors.
4. The BLM should cooperate with ADF&G to accomplish population surveys and habitat goals and objectives of the RMP for all big game (moose, caribou, bison, and muskox).
5. The BLM should cooperate with ADF&G and ADNRS to determine stipulations for barge traffic on rivers to protect raptor habitats and nesting sites on BLM lands adjacent to navigable rivers from disturbance.

Decisions

Wild-1: BLM sensitive species and their habitat will be managed to promote their conservation and to minimize the likelihood and need for listing under the ESA. Proactive management and monitoring would occur, as appropriate (BLM-Alaska Sensitive Species List current version; see Appendix G).

Wild-2: Adaptive Management: The BLM shall monitor (subject to availability of resources) wildlife habitat and phenological (life-cycle) shifts. Applicable management would be evaluated and adapted to respond to those shifts at the 5-year effectiveness review stage. Accordingly, the BLM management for wildlife habitat would be flexible and would be informed by resulting changes in both wildlife habitat and species presence.

Wild-3: Adaptive Management: Aircraft operating in support of special recreation permit (SRP) activities will be required to maintain a minimum altitude of 1,000 feet above ground level within 0.50 mile from occupied raptor nests (such as golden eagle, bald eagle, peregrine, gyrfalcon), except during takeoff and landing and when adherence would compromise safety (USFWS 2007).

Wild-4: The BLM will continue to coordinate with ADF&G and USFWS to help accomplish the population inventory and monitoring surveys for moose (see Map A-7), caribou (Map A-8), and muskox (Map A-9), as deemed appropriate. Data from these surveys may be used by the Alaska Board of Game and the Federal Subsistence Board to inform decisions for both State and federal hunts.

Wild-5: To minimize the potential for disease transmission to wildlife, applications for the use of pack animals would be reviewed on a project-specific basis.

Wild-6: If reindeer grazing is permitted, prior to issuing a grazing permit, the BLM may require a survey, as deemed appropriate, to determine the presence and baseline quality of caribou wintering and calving

habitat. Additionally, permit requirements may include moving the reindeer herd as necessary to avoid caribou wintering and calving habitat if those wintering and calving areas shift.

Wild-7: Reclamation, including required rehabilitation of wildlife habitat, for all surface-disturbing activities shall be in accordance with general performance standards for all BLM-permitted surface-disturbing activity requirements described for Soils (Section 2.1.2), Water Resources, (Section 2.1.3) and Fisheries (Section 2.1.4).

Wild-8: The Plan of Development for linear project ROWs must address caribou passage in all known caribou migration routes. To support the site-specific NEPA analysis, applicants must incorporate design features or stipulations to minimize impacts on and avoid substantially impeding caribou migration.

Wild-9: Migratory Birds. Permitted activities must comply with all requirements of the Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and applicable BLM guidance (see Appendix C) and follow USFWS national and Alaska guidelines (e.g., USFWS 2020) for timing recommendations for land disturbance and vegetation clearing.

Wild-10: Raptors. Priority raptor species are defined as peregrine falcon, gyrfalcons, golden eagle, and bald eagle. Nesting seasons are defined as: From March 1–August 31 for bald eagles and golden eagles, and from May 1–July 15 for gyrfalcons and peregrine falcons.

Wild-11: Raptors. Permitted surface-disturbing activities are required to conduct pre-work priority raptor nesting surveys, when determined necessary by the AO.

Wild-12: Raptors. Communications towers shall use industry BMPs to reduce bird strikes.

Wild-13: Raptors. All transmission powerlines must comply with current Avian Power Line Interaction Committee (APLIC) guidelines to minimize raptors and other birds from colliding with or being electrocuted by utility lines, alternative energy structures, towers, and poles (current version; APLIC 2012).

Wild-14: Raptors. If practicable, the BLM may require that utility lines running through raptor nesting areas be buried.

Wild-15: Raptors. Where raptors are likely to nest on human-made structures (such as cell phone towers) and such use could impede operation or maintenance of the structures or jeopardize the safety of the raptors, the BLM may require that the structures be equipped with either (1) devices engineered to discourage raptors from building nests, or (2) nesting platforms that would safely accommodate raptor nests without interfering with structure performance.

Wild-16: Raptors. To reduce disturbance to nesting priority raptors, campsites authorized by the BLM, including short- and long-term camps and agency work camps, will be evaluated in site-specific NEPA analyses to determine appropriate distances for campsites from any known priority raptor nest site during the nesting season. Site-specific NEPA analyses would reference current published guidance from the USFWS (USFWS 2020; available at <https://www.fws.gov/alaska/pages/migratory-birds/eagles-other-raptors/eagle-permits/disturbance-guidance>). Exceptions may be granted with additional minimization measures by the AO if no feasible alternative exists.

Wild-17: Raptors: When it is not possible to avoid and minimize disturbance to eagles, a USFWS permit may be required.

Wild-18: Bats. All BLM-permitted activities and mine closures with the potential to affect bat hibernacula are required to perform bat surveys as per agency accepted protocols to determine presence/absence of bats prior to project implementation.

Wild-19: Bats. BLM-permitted activities shall avoid disturbing known bat hibernacula to the extent practicable. This would include (but may not be limited to) occupied cave/karst features, abandoned mine adits and shafts, and abandoned structures.

Wild-20: Bats. The BLM will require provisions for bat ingress and egress for bat-occupied mine shaft/adits that are proposed to be closed or abandoned.

Wild-21: Bats. White-nose syndrome decontamination protocol shall be applied when working in bat hibernacula or breeding areas.

Wild-22: ESA-Listed Species. The BLM will incorporate objectives and actions identified in endangered species recovery plans into BLM documents, as appropriate.

Wild-23: ESA-Listed Species. In line with the BLM's ESA § 7(a)1 responsibilities, the BLM shall use its authorities for the proactive conservation and management of ESA-listed species where feasible.

Wild-24: Pollinators: The BLM shall incorporate all commitments, as applicable, from the U.S. DOI Pollinator Protection Plan (BLM 2015c, including any future IM updates or policy replacements) and any subsequently tiered BLM Alaska-specific guidance.

Wild-25: The BLM will work in cooperation with ADF&G and the State of Alaska AO to understand proposed predator control plans on BLM-managed lands. This includes the BLM meeting with the ADF&G annually to discuss species, control methods, objectives, locations, and timing and to resolve any potential areas of concern or conflict with other authorized BLM land uses.

Wild-26: The BLM will designate 236,556 acres as the Innoko Bottoms Priority Wildlife Habitat Area (see Map A-11), which corresponds to BLM land within the Paradise Controlled Use Area designated by ADF&G 2016-2017 Hunting Regulations.

Wild-27: Subject to valid existing rights, EUCAs within the planning area have the following Wildlife-related management decisions applied:

- Caribou and Moose Leasable Minerals – same as **Wild-28** below
- Migratory Birds – same as **Wild-37** below
- Raptors – same as **Wild-38** below

Wild-28: Caribou and Moose. Controlled surface use stipulation for leasable minerals: Permitted activities in areas identified as occupied caribou and moose calving habitat must avoid or minimize impacts to calving caribou and moose from April 15–May 31. Standard leasing terms and conditions would apply for leasable minerals in known moose calving and wintering concentrations.

Wild-29: Caribou and Moose. Locatable and salable mineral development would be allowed subject to actions for wildlife described above.

Wild-30: Caribou and Moose. Seasonal use restriction on construction in known moose and caribou calving concentrations (April 15–May 31). These seasonal restrictions may be changed based on changes in known caribou or moose concentrations.

Wild-31: Innoko Bottoms Priority Habitat Area. To protect unique wildlife and subsistence resources, BLM-managed wildlife habitat in Innoko Bottoms will be managed with the following stipulations subject to valid existing rights:

- Open to locatable development
- NSO for leasable development
- Closed to salable development

Wild-32: Innoko Bottoms Priority Habitat Area. Subject to ANILCA Title XI and valid existing rights, the Innoko Bottoms Priority Wildlife Habitat Area will be a FLPMA ROW Avoidance Area.

Wild-33: Connectivity Corridors. The BLM will work with adjacent landowners in the management of one connectivity corridor (South Connectivity Corridor) to facilitate adaptive management by retaining connectivity between USFWS refuges in the planning area (see Map A-10).

Wild-34: Connectivity Corridors. To protect resources within this corridor, BLM-managed public lands within the corridor shall be managed with the following stipulations subject to valid existing rights:

- Open to locatable development
- NSO for leasable development
- Open to salable development (subject to terms and conditions)

Wild-35: Connectivity Corridors. Subject to ANILCA Title XI and valid existing rights, the South Connectivity Corridor will be FLPMA ROW Avoidance Area for linear realty actions.

Wild-36: Connectivity Corridors. Travel management:

- OHV Designation = Limited
- Summer Casual and Subsistence Access:
 - Summer subsistence overland travel use is limited to ATVs (as defined in Appendix E) if the AO determines that such use is causing or is likely to cause an adverse impact.
 - Summer casual OHV use (as defined in Appendix E) is limited to existing routes (as shown in BLM's current route inventory once implementation planning occurs) only.
- Winter Casual and Subsistence Access:
 - No limitations on winter subsistence and casual use cross-country travel.

Work in coordination with the State of Alaska to designate stream crossing routes; these routes would be designated within the 100-year floodplain.

Wild-37: Migratory birds. Apply appropriate avoidance and/or mitigations to minimize impacts on migratory birds during surface-disturbing activities. Those restrictions and mitigations would be

determined at the implementation level. Exceptions must be coordinated with the USFWS. According to USFWS, nesting season is from March 1–August 31 for bald eagles and golden eagles, from May 1–July 15 for gyrfalcons and peregrine falcons, and from May 1–July 15 for most other forest, shrub, tundra, and wetland nesting birds.

Wild-38: Raptors. The BLM shall follow USFWS recommendations for buffers around raptor nests for BLM-permitted activities at the implementation level. BLM-permitted activities are required to use practices to avoid impacts on raptors, and to include visual screening and/or noise controls as necessary to avoid raptor nest abandonment or nest failure. Identification of these required measures would be made through site-specific implementation-level NEPA.

2.1.7 Nonnative Invasive Species (Wildlife and Plant)

Goals

1. The desired future condition is an intact landscape undamaged by NNIS, species (flora and fauna) that are not native to the planning area and cause ecological or economic harm.
2. Prevent damage to intact and functional ecosystems caused by NNIS infestations. Confine damage caused by NNIS infestations to already degraded areas.
3. Prevent the introduction and spread of NNIS in uninfested areas.
4. Contain, control, or eradicate existing NNIS infestations.
5. Effectively integrate NNIS prevention, control, and management activities into all BLM programs and functions within the planning area.

Objectives

1. Prevent introduction through critical control points: inspection and cleaning, education and outreach, and Early Detection Rapid Response (EDRR).
2. Prioritize species for control, eradication, and containment in accordance with the BLM Alaska State Invasive Species Policy.
3. Prioritize NNIS infestations occurring adjacent to communities or travel routes over infestations further away from human activities.
4. Prioritize EDRR for any aquatic invasive species found in any surface waters that could be used by float planes or watercraft.

Decisions

NIS-1: All actions implemented or authorized by the BLM shall include measures to prevent the introduction and spread of NNIS.

NIS-2: Authorized BLM permit holders will be responsible for costs and coordination related to eradicating prioritized NNIS infestations if those infestations are demonstrated to result from the permitted activity. An applicant should implement an NNIS survey or coordinate with the BLM to determine if an infestation is present prior to the granting of their permit. Authorized BLM permit holders will be responsible for the eradication of any increase in prioritized NNIS if that increase is demonstrated to result from the permitted activity.

NIS-3: Annual Reports from all permitted operations must include an update on NNIS presence and extent.

NIS-4: BLM-permitted activities must comply with the following:

- Development of an NNIS Management Plan commensurate with the size and intensity of the activity, including where appropriate Hazard Analysis Control Points strategy. The BLM can provide examples of NNIS management plans.
- At the discretion of the AO, permittees of proposed and existing authorized activities may be required to work with surrounding land management agencies/owners to establish Cooperative Weed Management Areas and would assist in developing and implementing NNIS management plans.
- Develop BMPs to prevent the introduction and spread of NNIS. Permittees would work with the BLM to develop project-specific BMPs where needed. Such BMPs may include but are not limited to such things as EDRR prevention measures such as cleaning all equipment before entering a permitted site, containment measures such as timing NNIS mowing before seed set, and treatment measures such as developing an integrated pest management plan.
- Methods of chemical control authorized by the *Vegetation Treatments using Herbicides on BLM Land in 17 Western States Record of Decision* (BLM 2007a) and *Vegetation Treatments using Aminopyralid, Fluroxypyr, and Rimsulfuron on BLM Land in 17 Western States* (BLM 2016a) are allowed. Permittees are responsible for upholding the requirements related to the use of those herbicides. Treatment monitoring and reporting requirements are outlined in the vegetation treatments RODs (BLM 2007a; BLM 2016a). Additionally, the BLM may use all other methods of chemical control authorized by subsequent BLM NEPA decisions, as appropriate. Any use of chemical control on BLM-managed public lands must be approved by the BLM and must follow BLM requirements for type and application method, including the use of a certified applicator.

NIS-5: Cooperate with other agencies and landowners in the prioritization of treatment areas with known infestations of NNIS, including the INHT NTMC, anadromous streams, lakes, lichen-rich habitats, moose habitat, and berry-picking areas, for prevention and eradication of NNIS.

NIS-6: Coordinate with other applicable agencies in the implementation of DOI's *Safeguarding America's Lands and Waters from Invasive Species: A National Framework for Early Detection and Rapid Response* (DOI 2016) and other region-specific plans.

NIS-7: Wildland Fire. The BLM will continue to coordinate and provide training and information on NNIS to the protection agencies.

NIS-8: Wildland Fire. When deploying onto BLM-managed lands, the responsible fire protection agency/organization are required to inspect personal gear, tools, and equipment prior to deployment to fire sites, and clean if necessary.

NIS-9: Wildland Fire. NNIS monitoring in burned areas will be prioritized based on risk of invasion, presence of surface-disturbing activities, use of motorized equipment for fire management, and resource value of the burned area. This would be determined at the implementation level.

NIS-10: Wildland Fire. When appropriate as determined by the AO, the BLM will apply for ES&R funds for inventorying, monitoring, and treatment of NNIS in burned areas based on risk of invasion and resource values.

NIS-11: Wildland Fire. Water delivery aircraft cannot dip or scoop from waters infested by elodea or other aquatic invasive species unless necessary to protect human health and safety.

NIS-12: Weed-Free Material. Only feed, mulch (e.g., hay cubes, hay pellets, or straw), and erosion control materials certified as weed-free through the Alaska Weed-Free Forage certification program (or other programs with approval of the AO) are authorized on BLM-managed public lands. Where Alaska-certified sources are not available, locally produced forage, mulch, and erosion control materials could be used with approval from the AO. If no certified weed-free or local sources are available, other products could be used with the approval of the AO.

NIS-13: Weed-Free Material. When practical and available within a reasonable proximity as determined by the AO, permittees should use gravel and material certified as weed-free on BLM-managed public lands. Where weed-free gravel and materials are not available, other sources may be used with the approval of the AO.

NIS-14: Weed-Free Material. Use of approved weed-free materials does not relieve project proponents of their requirement to control NNIS related to their authorized activity.

NIS-15: Casual Use. The BLM shall post NNIS educational materials.

NIS-16: Casual Use. The BLM will continue to cooperate with rural communities and regional land managers to help raise awareness about invasive species and how to prevent their spread.

NIS-17: Casual Use. The State of Alaska continuously promotes NNIS prevention related to the use of navigable waterways by casual and subsistence use of motorboats and floatplanes and the BLM will cooperate.

2.1.8 Wildland Fire

Goals

1. The protection of human life is the single, overriding priority. Setting priorities among protecting human communities and community infrastructure, other property and improvements, and natural and cultural resources will be based on the values to be protected, human health and safety, and the costs of protection. Once people have been committed to an incident, these human resources become the highest value to be protected (H-9211-1 Fire Planning Manual; BLM 2012b).
2. Wildland fire would be managed for multiple objectives, including protection and resource benefit, on all BLM-managed lands in the planning area. Naturally occurring wildland fire would be used to protect, maintain, and enhance resources and, as nearly as possible, would be allowed to function in its natural ecological role as a disturbance agent (USDA et al. 2009).
3. Fuel treatments would protect values and achieve resource management plan objectives.
4. Wildland fire would be managed at a landscape scale. Fire management strategies and practices would be adapted in response to climate change as necessary to ensure protection and resource objectives continue to be met.

5. Prevention, outreach, and education programs would improve the public’s understanding of wildland fire management and the natural role of wildland fire in Alaska’s ecosystems.

Objectives

1. Human life and health should be protected from risks associated with wildland fire, smoke, and fire management actions.
2. The cost of protecting BLM resources and assets from wildland fire damage should be kept commensurate with their value.
3. Wildfires on BLM-managed public lands that threaten communities or other jurisdictions should be managed collaboratively by all affected agencies. Wildland fire management actions should consider risks and benefits that span jurisdictional boundaries. The BLM should help local communities build the capacity to reduce the risk that wildland fire poses to their populace and infrastructure.
4. Wildland fire management should be used as a tool to accomplish management objectives for the following resources:
 - Air Quality and Air Quality-related Values
 - Soils
 - Water Resources and Fisheries
 - Vegetation
 - Wildlife
 - Nonnative Invasive Species
 - Cultural Resources
 - Paleontological Resources
 - Visual Resources Management
 - Lands with Wilderness Characteristics
 - Forestry and Woodland Products
5. Wildland fire management decisions should be based on a foundation of sound science. As the effects of climate change become better understood, strategies may be adapted to reduce or delay alterations in fire regime and vegetation structure or limit the release of greenhouse gases into the atmosphere, recognizing that it may not continue to be possible, practical, economical, or desirable to maintain vegetation within historical ranges of variation.
6. Wildland fire management activities should be conducted in a manner that avoids damaging impacts on resources and other values including the introduction and spread of nonnative and invasive species, introduction of suppression chemicals into waterways, disturbance of erodible soils or ecologically sensitive systems, and the degradation of air quality as a result of prescribed fire activities. Where damage occurs, it should be repaired or mitigated to the extent possible.
7. ES&R efforts should identify and mitigate threats to life or property or unacceptable degradation to natural and cultural resources resulting from the natural effects of a wildland fire.

8. The BLM should clearly communicate to the public how fire management policies and practices work to balance the natural role of wildland fire with the protection of human life, communities, and other values.
9. Unauthorized human ignitions should be prevented through collaborative prevention efforts with interagency partners and other affected groups and individuals.

Decisions

Fire-1: Preparedness. Fire management direction for the planning area will be incorporated into the BLM Alaska Fire Management Plan and the Wildland Fire Decision Support System (or other appropriate systems used by the BLM or other federal land management agencies).

Fire-2: Preparedness. The BLM Alaska Fire Management Plan shall inform the initial response to wildland fires occurring on BLM-managed public lands.

Fire-3: Preparedness. The locations of BLM assets and resources vulnerable to wildland fire or fire management actions will be geospatially identified, valued, and assigned a default initial fire management response. Default initial responses would be made available to the protecting agencies.

Fire-4: Preparedness. Fire management planning and implementation will be coordinated through the Alaska Master Cooperative Wildland Fire Management and Stafford Act Response Agreement and Alaska Statewide Annual Operating Plan to ensure a multi-jurisdictional, landscape-scale approach.

Fire-5: Wildfire and Fuels Management. Naturally occurring wildfires may be managed for multiple objectives including resource benefit on all BLM-managed public lands within the planning area.

Fire-6: Wildfire and Fuels Management. The initial action on human-caused wildfires shall be to suppress the fire at the lowest cost and least risk to firefighter and public safety.

Fire-7: Wildfire and Fuels Management. Secretarial Order 3372, Reducing Wildfire Risks on Department of the Interior Land through Active Management, is intended to enhance Department of Interior's management of federal lands to "(1) better protect people, communities, wildlife habitat, and watersheds... and (2) promote the sustainable recovery of damaged lands." As such, principles of active management shall be used to facilitate wildfire 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 wildfire.

Fire-8: Wildfire and Fuels Management. Prioritize (subject to availability of resources) hazard fuel management projects in areas with known or high probability of vertebrate fossils or significant non-vertebrate fossils to prevent damage to those resources from the impacts of wildfire, such as increased erosion.

Fire-9: Wildfire and Fuels Management. Fuels treatments will be initiated and maintained at cabins, cultural and paleontological sites, and at other BLM values where needed to protect resources from fire. Methods of hazard fuel reduction may include prescribed fire (e.g., broadcast or pile burning), and mechanical, chemical, or manual disposal. Specific priorities include:

- Fuel reduction in black spruce areas where wildfire has been excluded due to land use and allocation decisions that conflict with the natural role of fire

- Fuel breaks in and around communities
- Areas with known or high probability of cultural resources, vertebrate fossils, or significant non-vertebrate fossils that are at risk to damage from wildfire
- Historically eligible roadhouses within the INHT NTMC
- Public shelter cabins within the INHT NTMC

Fire-10: Wildfire and Fuels Management. The BLM will use Good Neighbor Authority agreements and pursue long-term land stewardship contracts in order to support fuels reduction activities on neighboring lands where it benefits public land resources.

Fire-11: Wildfire and Fuels Management. The BLM will manage wildland fire in a manner that avoids (where possible) damaging impacts to resources and other values including the introduction and spread of nonnative and invasive species, introduction of suppression chemicals into waterways, disturbance of erodible soils or ecologically sensitive systems, and the degradation of air quality. Use minimum impact suppression techniques wherever possible. Repair or mitigate any damage that occurs.

Fire-12: Wildfire and Fuels Management. The BLM will continue to cooperate and collaborate with other federal, state, Native, and local land managers and with other stakeholder groups to effectively and efficiently manage wildland fire in Alaska in accordance with interagency and BLM plans and agreements.

Fire-13: The BLM will participate in outreach and prevention efforts and coordinate through the Alaska Wildland Fire Coordinating Group Wildland Fire Education and Prevention committee.

Fire-14: Actions will be taken to recover costs and damages incurred by the BLM resulting from human-caused fires when the responsible party(s) is identified and legal liability or intent exists.

Fire-15: Nonnative Invasive Species. The BLM will continue to coordinate and provide training and information on NNIS to the protection agencies.

Fire-16: Nonnative Invasive Species. When deploying onto BLM-managed lands, the responsible fire protection agency/organization will be required to inspect personal gear, tools, and equipment prior to deployment to fire sites and clean if necessary.

Fire-17: Nonnative Invasive Species. NNIS monitoring in burned areas will be prioritized (subject to availability of resources) based on risk of invasion, presence of surface-disturbing activities, use of motorized equipment for fire management, and resource value of the burned area. This would be determined at the implementation level.

Fire-18: Nonnative Invasive Species. When appropriate as determined by the AO, the BLM may apply for ES&R funds for inventorying, monitoring, and treatment of NNIS in burned areas based on risk of invasion and resource values.

Fire-19: Nonnative Invasive Species. Water delivery aircraft cannot dip or scoop from waters infested by elodea or other aquatic invasive species unless necessary to protect human health and safety.

Fire-20: Smoke and Air Quality. Smoke will continue to be recognized as both a human health threat and an inevitable natural result of wildfire. All fire management actions would consider the impacts of smoke

on human health and safety. The effects of smoke on economic activities, recreation, and tourism will be considered.

2.1.9 Cultural Resources

Goals

1. Identify, preserve, and protect significant cultural resources and ensure that they are available for appropriate uses by present and future generations under FLPMA §§ 103(c), 201(a) and (c); National Historic Preservation Act (NHPA) § 110(a); and Archaeological Resources Protection Act § 14(a).
2. Seek to reduce imminent threats and resolve potential conflicts from natural or human-caused deterioration, or potential conflict with other resource uses (NEPA [42 U.S. Code (U.S.C.) 4321]; FLPMA § 103(c); NHPA §§ 106 and 110(a)(2)) by ensuring that all authorizations for land use and resource use will comply with the NHPA § 106.
3. Maintain the condition (National Register of Historic Places [NRHP] eligibility) of cultural resources: protect from destruction and deterioration.
4. Maintain the number of cultural resources: ensure sites are not lost to actions such as development, erosion, or fire.
5. Increase knowledge of cultural resources in the planning area (through proactive surveys, oral histories, and other methods).

Objectives

1. Maintain or increase the number of known sites within the planning area.
2. Increase the acres of planning area inventoried for cultural resources.
3. Maintain the NHRP eligibility of known cultural resource sites within the planning area.
4. Ensure that access to sensitive cultural resource sites is not increased.
5. Increase general (not site-specific) outreach, interpretation, and education for cultural resources in the planning area.

Decisions

Cult-1: Monitor cultural resources to identify effects from climate change.

Cult-2: Prioritize cultural resource surveys, as deemed appropriate and dependent on changing funding and circumstances, to include the following:

- Unique or significant cultural resources threatened by wildland fire
- Unique or significant cultural resources threatened by other phenomena related to climate changes, including permafrost thawing, or exposure through coastal, riverine, or other erosion
- Areas known to have high OHV use
- Cultural resource surveys in these areas (listed in descending order of priority, subject to change by the AO). This would include inventory and monitoring for potential loss or degradation:
 - Kaltag Portage

- Farewell Burn
- Unalakleet River corridor and watershed
- Historic mining communities of Iditarod, Flat, and Ophir; Yukon-Kuskokwim Portage
- Kuskokwim River corridor and watershed
- Yukon River corridor
- Nulato River corridor
- Pitka River corridor and watershed
- Big River corridor
- Mouth of Seal Oil Creek on Norton Sound

Cult-3: Prioritize hazard fuel management projects (subject to availability of resources) in areas with known or high probability of cultural resources that are at risk to damage from wildfire. Continue to monitor shifts in vegetation types to assess changing fire risk to cultural resources.

Cult-4: As deemed appropriate, prioritize areas that are high probability for cultural sites eligible for the NRHP for post-wildland fire survey.

Cult-5: Stabilize or excavate threatened unique or significant cultural sites.

Cult-6: Support partnerships with other federal agencies, State of Alaska, tribes, ANCSA Native corporations, and private landowners for documentation, stewardship, and protection of cultural resources, including historic mining districts such as Iditarod, Flat, and Ophir.

Cult-7: For BLM-permitted activities that occur, the following stipulations will be attached to all permits, leases, ROW grants, etc.:

- All operations shall be conducted in such a manner as to avoid (where feasible) damage or disturbance to any prehistoric or historic sites or modern camp sites. The Archaeological Resource Protection Act prohibits the unauthorized excavation, removal, damage, or disturbance of any archaeological resource located on public lands. Violation of this law could result in the imposition of both civil and criminal penalties on the violator, and revocation of present and future BLM permits or authorizations. Human remains on federal lands are additionally protected by the Native American Graves Protection and Repatriation Act (Public Law 101-601, 25 U.S.C. 3001 et seq., 104 Stat. 3048).
- Should any historic or prehistoric sites, including potential human remains be located during the course of operations, the applicant shall immediately stop work and notify the BLM AO, and the BLM Archaeologist would evaluate the discovery. If the applicant proposes surface disturbance in the future other than what is authorized herein, a cultural resource survey and evaluation would be needed before the disturbance is authorized.

Cult-8: In the event that a discovery is made at an active mining claim, BLM and permitted operators will follow the regulations mandated in 43 CFR 3809.420(b)(8).

Cult-9: Prioritize the preparation of NRHP Determinations of Eligibility and nominations for INHT contributing properties (including trail segments and associated sites).

Cult-10: Land Use Plan Criteria for Cultural Allocation:

- Cultural properties allocated to uses are subject to the management actions listed in Table C-2 of BLM’s Land Use Planning Handbook (BLM 2005a) to realize their use potential. Designate all sites for scientific use, except INHT trail segments. Consider the following INHT historic sites for public use: the Rohn Civilian Conservation Corps Cabin (MCG-00019) and the Kaltag and Farewell segments of the INHT (UKT-00044 and NOB-00057 [Kaltag]). Prioritize developing partnerships with Doyon Ltd. to work toward preservation of the existing historical mining town of Flat.
- Categorize geographic areas as high/medium/low priority for future inventory of cultural properties. High-priority areas include the Kaltag Portage and Farewell Burn areas of the INHT and their associated resources. High-priority areas also include areas of high mineral potential, both because of the probability of historic mining sites, and because of the potential for adverse effects on resources from proposed mining. All authorizations for land and resource use must comply with Section 106 of the NHPA, consistent with and subject to the objective established in the RMP for the proactive use of cultural properties in the public interest (NHPA §§ 106, 101(d)(6), and 110(a)(2)(E); U.S.C. 306108; BLM et al. 2012).
- BLM will continue to consult with tribes to identify Traditional Cultural Properties or traditional use areas within the planning area as part of future planning process.

Cult-11: The BLM will work collaboratively with rural communities in the planning area and other partners to develop Cultural Landscape Reports. Cultural landscapes are “a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person, or that exhibit other cultural or aesthetic values.” These reports will utilize traditional and other knowledge to give a contemporary picture of resources uses and their social and historical context and help communities in their own planning efforts as well as allow the BLM and other agencies to assess impacts of proposed projects and plans. Cultural Landscape Reports will be developed for two or three high-priority communities in the planning area. Priority would be determined in conjunction with village representatives.

2.1.10 Paleontological Resources

Goals

1. Protect and conserve significant paleontological resources.

Objectives

1. Conduct inventory, identify, record, evaluate, manage, and protect significant paleontological resources for scientific research, educational purposes, and public outreach.
2. Protect significant paleontological resources from surface-disturbing activities by conducting inventory in high probability paleontological areas.
3. Develop education/interpretation related to important paleontological resources.
4. Develop an updated Potential Fossil Yield Classification (PFYC) system 1 (low) through 5 (high) for the planning area (see Map A-12).
5. Complete and maintain an inventory of fossil localities and monitor known occurrences of any significant paleontological resources that are under possible threat.

Decisions

Paleo-1: All PFYC 4 and 5 areas that are discovered in locations where erosion potential is increasing the risk of fossil exposure will be prioritized for BLM survey. Apply as necessary for certain Class 3 and U units.

Paleo-2: Prioritize hazard fuel management projects in areas with known or high probability of vertebrate fossils or significant non-vertebrate fossils to prevent damage to those resources from the impacts of wildfire, such as increased erosion.

Paleo-3: Inadvertent discovery stipulation will be included on all ROW grants, leases, and authorizations (BLM-permitted use). These stipulations will be consistent with Chapter III of the BLM Handbook H-8270-1, General Procedural Guidance for Paleontological Resource (BLM 1998) and will include the following steps:

- An assessment by a BLM paleontologist (or other qualified paleontologist approved by the BLM) of the paleontological resources likely to be present in the area and the threat of damage to the resource
- A determination of whether avoidance of the resource is possible
- If avoidance is not possible, an assessment of appropriate mitigation and monitoring for project impacts on the resource

Paleo-4: The BLM will work with the project applicant and other parties (if applicable) to develop a mitigation plan to address resource impacts.

Paleo-5: Criteria or use restrictions will be identified to ensure that: (1) areas containing, or that are likely to contain vertebrate or noteworthy occurrences of invertebrate or plant fossils are identified and evaluated prior to authorizing surface-disturbing activities; (2) management recommendations are developed to promote the scientific, educational, and recreational uses of fossils as appropriate; and (3) threats to paleontological resources are identified and mitigated as appropriate.

Paleo-6: As allowed under existing regulations, recreational collectors may collect and retain reasonable amounts of common invertebrate and plant fossils for personal, non-commercial use. Surface disturbance must be negligible, and collectors may only use non-power hand tools.

Paleo-7: Collection, removal, excavation, or casting of vertebrate fossils, including dinosaur tracks and scientifically significant invertebrate and plant fossils, is prohibited unless allowed under a scientific/research permit issued by the BLM Alaska State Office.

Paleo-8: BLM will continue to promote the stewardship, conservation, and appreciation of paleontological resources through appropriate educational and public outreach programs.

Paleo-9: In areas with high potential for significant fossil discovery:

- The BLM will educate on-the-ground personnel conducting fuel and vegetation treatments on the identification of significant fossil resources and require reporting of discoveries.
- All permit administrators will provide applicable regulatory and curation requirements related to paleontological resources to permittees as a condition of their permit. All BLM-permitted

activities will be required to contact the BLM if they encounter vertebrate fossils or significant invertebrate fossils, and document and inform the BLM of the discovery.

Paleo-10: In those cases where vertebrate or significant invertebrate fossils are reported to the BLM, the BLM will consider the following options:

- Partnering with, or contracting, a qualified permitted paleontologist to further assess or excavate the find
- Collecting by a BLM paleontologist or someone appointed by them for BLM interpretive use in collaboration with the University of Alaska-Fairbanks Museum of the North
- Collecting by a BLM paleontologist or someone appointed by them and sending the specimens to University of Alaska-Fairbanks Museum of the North for curation
- Leaving the discovery as-is in its original location
- In the event that a discovery is made at an active mining claim, the BLM and permitted operators shall follow the regulations mandated in 43 CFR 3809.420(b)(8), as described in Section 2.1.9 for cultural resources.

Paleo-11: The EUCAs within the planning area have the following Paleontological-related management decisions applied:

- Protection Measures for Paleontological Resources – same as **Paleo-12** below
- Resource Surveys and Discovery – same as **Paleo-13** below

Paleo-12: Educate mineral extraction (leasable, locatable, salable) permittees on the identification of significant fossil resources and require development of a monitoring plan and reporting of discoveries. The education shall clarify that paleontological resources are federal property, not the private property of those doing mineral extraction. If discoveries are made, then actions described above would apply.

Paleo-13: If paleontological resource discoveries are made, then actions described above would apply.

2.1.11 Visual Resource Management

Goals

1. Manage public lands in a manner that would protect the quality of the scenic (visual) values of these lands for present and future generations.
2. Manage public lands administered by the BLM according to Visual Resource Management (VRM) classes that are determined based on the visual resource inventory, land use allocation, and management action decisions made in the RMP.

Objectives

1. Establish VRM classes for the planning area (Map A-13).
2. Maintain the overall integrity of visual resource inventory classes while allowing for development of existing and future uses.
3. Promote BMPs for reclamation of landscapes, restoration of native habitats, and rehabilitation of waterways and riparian areas to enhance natural/historical scenic values that have been negatively

altered. These would include BMPs found in *Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands* (BLM 2013b).

Decisions

VRM decisions are listed below and summarized by VRM Class in Table II-5, below. VRM Class IV will be applied to all BLM-managed lands not specifically listed in Table II-5.

VRM-1: Summer and Winter Travel Routes (excluding the INHT and connector routes, and the Unalakleet River designated WSR and non-designated segments): Apply VRM Class III for BLM-managed public lands within a 5-mile offset from centerline of existing Summer and Winter Travel Routes (for a total 10-mile-wide corridor): 2,176,440 acres.

VRM-2: Coastal Areas: Apply VRM Class III for BLM-managed public lands 3 miles inland from coastlines: 47,659 acres.

VRM-3: Primary Rivers (Travel Routes): Apply VRM Class III for BLM-managed public lands within a 5-mile offset from the centerline of each side of the main river travel routes, for an approximate total 10-mile-wide corridor on the Yukon, Anvik, and Kuskokwim Rivers: 1,277,851 acres.

VRM-4: Subsistence Use Areas (Map A-29). Apply VRM Class II for Subsistence Use Areas located in BLM-managed public lands ranked as scenic quality A: 373 acres.

VRM-5: Subsistence Use Areas (Map A-29). Apply VRM Class III for Subsistence Use Areas located in BLM-managed public lands ranked as scenic quality B or C: 4,429,165 acres.

VRM-6: Two parcels near Takotna and McGrath: Apply VRM Class III for management of these parcels (9,900 acres).

VRM-7: EUCAs within the planning area would have the following VRM-related management decisions applied:

- Nixon Fork EUCA managed as VRM Class III: 70 acres
- Flat (2,338 acres) and Ophir (2,539 acres) EUCAs – same as INHT (main trail) and connecting/side trails **VRM-9 and 10** below: 4,877 acres

VRM-8: Manage BLM-managed public lands within 5 miles of Communities within the planning area as VRM Class III: 99,980 acres.

VRM-9: 15-mile offset from BLM-managed public lands along the INHT (main trail) and the Iditarod-Anvik Connecting Trail will be managed per VRM Class II: 1,922,881 acres

VRM-10: Manage a 15-mile offset of the INHT connecting/side trails, with the exception of the Iditarod-Anvik Connecting Trail, as VRM Class III: 1,663,440 acres.

VRM-11: Manage a 15-mile offset from the center point of Old Woman Mountain as VRM Class II: 447,809 acres.

VRM-12: Manage the Unalakleet Wild River Corridor as VRM Class I: 46,953 acres

VRM-13: Manage as VRM Class II a 5-mile offset from the centerline of the designated WSR corridor: 284,592 acres

VRM-14: Manage as VRM Class III a 5-mile to 15-mile offset from the centerline of the Unalakleet River (including below the designated WSR corridor): 694,539 acres

VRM-15: Manage a 5-mile offset from Pike Lake as VRM Class II: 84,249 acres. Manage a 5- to 15-mile offset from Pike Lake as VRM Class III: 260,533 acres.

VRM-16: Manage a 15-mile offset from center of the community of Flat as VRM Class III: 122,201 acres.

VRM-17: Manage undesignated ACEC geographies as VRM Class II for areas with important cultural resource values (1,219,211 acres, or 9.1 percent of the planning area) and VRM Class III for areas with important fisheries and/or related watershed resources (1,825,535 acres, or 13.6 percent of the planning area).

Table II-5: Summary of Visual Resource Management Decisions

<u>VRM Class I</u>	<u>VRM Class II</u>	<u>VRM Class III</u>
<ul style="list-style-type: none"> Unalakleet Wild River Corridor (46,953 acres) 	<ul style="list-style-type: none"> Subsistence Use Areas located in BLM-managed public lands ranked as scenic quality A (373 acres) 15-mile offset from BLM-managed public lands along the INHT (main trail) and the Iditarod-Anvik Connecting Trail managed per VRM Class II (1,922,881 acres) 15-mile offset from the center point of Old Woman Mountain (447,809 acres) 5-mile offset from the centerline of the designated Unalakleet WSR corridor (284,592 acres) 5-mile offset from Pike Lake (84,249 acres) 	<ul style="list-style-type: none"> 5-mile offset from centerline of existing Summer and Winter Travel Routes (2,176,440) 3 miles inland from coastlines (47,659 acres) 5-mile offset from the centerline of each side of the main river travel routes (Yukon, Anvik, and Kuskokwim Rivers) (1,277,851 acres) Subsistence Use Areas located in BLM-managed public lands ranked as scenic quality B or C (4,429,165 acres) Two parcels near Takotna and McGrath: (9,900 acres) Nixon Fork, Flat and Ophir EUCAs (4,947 acres) BLM-managed public lands within 5 miles of communities (99,980 acres) 15-mile offset of the INHT connecting/side trails, with the exception of the Iditarod-Anvik Connecting Trail (1,663,440 acres) 5-mile to 15-mile offset from the centerline of the Unalakleet River (including below the designated WSR corridor) (694,539 acres) 5- to 15-mile offset from Pike Lake (260,533 acres) 15-mile offset from center of the community of Flat (122,201 acres)

2.1.12 Lands with Wilderness Characteristics

Goals

1. Maintain the area's existing natural conditions.
2. Maintain opportunities for solitude or primitive and unconfined types of recreation.

Objectives

1. Following the guidance of BLM Manual 6310–Conducting Wilderness Characteristics Inventory on BLM Lands, maintain the inventory of the 80 parcels of land throughout the life of the RMP.

Decisions

LWC-1: Consistent with ANILCA § 1320 and BLM Manual 6310, Conducting Wilderness Characteristics Inventory on BLM Lands, BLM must maintain and update as necessary the inventory of wilderness characteristics across the BLM managed lands in the planning area when site-specific NEPA actions are considered.

LWC-2: EUCAs within the planning area would have the **LWC-3** below Lands with Wilderness Characteristics-related management decision apply.

LWC-3: Managed to emphasize other resource values and multiple uses as a priority and does not consider wilderness characteristics:

- 13,466,003 acres (100 percent)

See Map A-14.

2.2 Resource Uses

2.2.13 Forestry and Woodland Products

Goals

1. Maintain and restore health, productivity, and biological diversity of forest and woodland ecosystems.
2. Consistent with other resource values, provide personal use wood products for local consumption and opportunities for commercial harvest.

Objectives

1. Continue to inventory additional acres of the planning area for forest resources.
2. Define areas where timber or biomass harvesting is acceptable.
3. Provide forest resources to meet subsistence needs of rural Alaskans.
4. Provide forest resources to promote economic opportunity throughout the region for community biomass or other products that could enhance the economic stability of the region.

Decisions

Forest-1: All harvest activities that include surface disturbance may require surveys, as deemed appropriate, for sensitive resources that could be affected by the surface disturbance. The determination of what surveys may be required would depend on the location and type of disturbance and would be identified by the BLM at the site-specific implementation level.

Forest-2: In areas where timber harvest permits are approved, excluding pre-1955 mining claims, the following are required:

- Skid trails and roads constructed for the timber sale are recontoured and reclaimed to BLM requirements, unless authorized by the AO upon termination of the timber sale activity.
- All pre-existing routes and trails within the timber harvest area are left open and in a passable condition during and after harvest operations.
- Dispersed slash and unused tree portions are no longer than 18 inches in length.
- Maximum stump height is 8 inches, unless otherwise specified in the permit.
- Harvest should follow State Forest Practices Act BMPs and Alaska Statutes § 41.17.115, Riparian Standards Matrix: Summary of Regulations and Statutes.

Forest-3: Use of trees or vegetation for trapping purposes will be allowed. All harvest activities will be prohibited from cutting or otherwise disturbing trees that are actively being used for trapping.

Forest-4: Harvest of dead or downed wood for immediate use in the immediate vicinity such as recreational uses (camping on all BLM-managed lands throughout the planning area) will be allowed without a permit.

Forest-5: For BLM-permitted activities, recommend types of cultural training for people unfamiliar with rural Alaska life and culture.

Forest-6: Encourage BLM-permitted operators to use local hire to the extent possible.

Forest-7: Subject to valid existing rights, EUCAs within the planning area will have the following Forestry and Woodland Products-related management decisions applied:

- Commercial Woodland Harvest Areas – same as **Forest-8** below
- Personal Use and Subsistence Woodland Harvest Areas – same as **Forest-11** below
- Forestry BMPs for Commercial Activities (Does Not Apply to Subsistence Use) – same as **Forest-14** below

Forest-8: Commercial woodland harvest is prohibited within the Unalakleet Wild River Corridor (Map A-15).

Forest-9: All BLM-managed public lands except for the Unalakleet Wild River will be open to permitting for Commercial Woodland Harvest. The BLM will issue permits for Commercial Woodland Harvest following the normal permitting process, consistent with an ongoing assessment of HVW health.

Forest-10: Within the INHT NTMC, the BLM will manage harvest permits to maintain the nature and purpose of the INHT and avoid substantial interference to the INHT nature and purpose. Permits would be issued at the AO's discretion.

Forest-11: Personal use and subsistence house log harvesting will not be allowed within the riparian areas of streams. Non-subsistence house log harvest will be prohibited within designated WSR corridors.

Forest-12: Personal use gathering of forest firewood of more than 10 cords of firewood per household per year, and gathering forestry products will require a permit.

Forest-13: All BLM-managed lands outside of the riparian areas of streams will be open to subsistence woodland harvest. All BLM-managed lands outside of the WSR corridors and the riparian areas of streams will be open to personal use woodland harvest. See Map A-16 (Casual Use and Subsistence Woodland Harvest).

Forest-14: Locations and timing of permitted timber sales will be determined based on soil moisture content, soil erosivity, and micro-topography (e.g., steepness of slopes, presence of hummocky ground). Timber sale operations would be allowed during thaw conditions with presence of stable soils. This does not apply to subsistence use.

2.2.14 Reindeer Grazing

Goals

1. Manage permitted grazing to meet BLM Alaska Land Health Standards.
2. Provide opportunities for grazing by local communities if proper grazing management can ensure the protection, conservation, and improvement of rangeland ecological health.
3. Manage rangelands for long-term sustainability of habitat, resilient ecosystems, and connectivity of native wildlife movement.
4. Prevent domestic animal conflict with caribou herds.

Objectives

1. Maintain or restore rangelands to ensure or to make progress toward meeting BLM Alaska Land Health Standards.

Decisions

Graz-1: Permittees must demonstrate herd management, as demonstrated by the ability to gather, move, or contain their herds as necessary to avoid commingling with caribou herds and to address rangeland health standards.

Graz-2: Surface-disturbing rangeland improvements will be subject to applicable site surveys, as deemed appropriate.

Graz-3: Permitted grazing will be subject to State of Alaska animal health, disease, import/export, slaughtering, and processing requirements (ADEC, Division of Environmental Health).

Graz-4: Limitations in OHV Travel Management Areas (TMAs) (as described in Section 2.2.7, Travel and Transportation Management) apply to permitted grazing areas, unless otherwise authorized by the BLM AO. Specific allowances or requirements regarding OHV use by grazing permittees will be authorized as part of their grazing permit.

Graz-5: Herders are responsible for developing grazing plans and are encouraged to seek assistance from the NRCS and/or the University of Alaska, Fairbanks.

Graz-6: If necessary, a notice of non-compliance would be issued identifying corrective actions that must be made within 1 year of notification. A second notice of non-compliance would be issued if a permittee

fails to comply within 1 year of the first notice. If non-compliance continues after the second year, the case would be referred to law enforcement for trespass.

Graz-7: Supplemental feeding of reindeer may be authorized. Only weed seed–free feed certified through the Alaska Weed-Free Forage certification program (or other programs with approval of the AO) will be allowed. If no weed seed-free feed is available, other products could be used with the approval of the AO.

Graz-8: The BLM will work cooperatively with the Kawerak, Inc. Natural Resources Division's Reindeer Herders Association, the University of Alaska-Fairbanks Reindeer Research Program, and the NRCS to support operators' ability to maintain rangeland health.

Graz-9: In areas managed as NSO, permanent range improvements are not allowed.

Graz-10: EUCAs within the planning area are closed to reindeer grazing.

Graz-11: Grazing is not permitted on BLM-managed land in the following areas:

- Areas with important fisheries and watershed values in the Nulato River watershed;
- Unalakleet Wild River Corridor; and
- INHT NTMC.

Any area not listed above are open to permitting for reindeer grazing at the implementation level where ecological conditions could support that grazing. This would be determined at the site-specific level and analyzed through implementation-level NEPA.

Graz-12: Proposed grazing operations must submit a grazing permit application that includes a detailed Grazing Management Plan.

Graz-13: New applications for grazing permits may be considered in the planning area.

Graz-14: Herd crossing permit applications would be addressed as per direction in 43 CFR 4300.80 for proposals to move reindeer across BLM-managed public lands that are currently not administered under an existing grazing permit.

Graz-15: If in consultation with ADF&G there are concerns with reindeer grazing interacting with caribou populations, BLM could require permits to have satellite collars/VHF tracking devices on at least one animal for herds of up to 75 and at least two animals for herds larger than 75. These data would be immediately available to the BLM upon request, and BLM will be provided with annual reports showing location(s) of the herd throughout the year.

Graz-16: Grazing operations shall be administered to a maximum utilization threshold of Grazed Class 5 (75–100 percent of primary forage species utilized). This utilization may be revised if scientific research indicates a different level of utilization is necessary to maintain rangeland health. The Alaska Grazed Class Method will be used for monitoring permitted reindeer herds to determine utilization and lichen abundance. The BLM shall monitor range utilization when deemed necessary for permit compliance.

See Map A-17.

2.2.15 Locatable and Salable Minerals

Goals

1. Support a successful and innovative mineral development program that can allow for job opportunities while reclaiming mined lands to ecologically successful and environmentally stable function through the use of modern reclamation techniques.
2. Provide for the opportunity to develop locatable and salable mineral resources on public lands to meet national, regional, and local needs while ensuring the long-term health and diversity of the land.
3. Encourage exploration of public lands to define potential mineral resources of national strategic interest, that are economically crucial for State and local communities, and to support green technology development and carbon reduction technology.

Objectives

Locatables

1. Conduct all mandatory compliance inspections to ensure proper compliance with the law and regulations, policy, and mine and reclamation plan. Provide constructive feedback to miners on the status of their mining operation.
2. Focus on resolving issues at the lowest and most reasonable level and progressively working through the steps of allowable enforcement actions to return any mining operation in noncompliance to compliance.
3. Ensure adequate reclamation of mine sites, both placer and hard rock, to comply with the latest industry standards and BMPs.

Salables

1. Conduct all mandatory compliance inspections to ensure proper compliance with the law and regulations, policy, and mining and reclamation plan. Provide constructive feedback to operators on the status of their mining operation.
2. Focus on resolving issues at the lowest and most reasonable level and progressively working through the steps of allowable enforcement actions to return any mining operation in noncompliance to compliance.
3. Perform production verification to ensure accurate accounting of materials removed and proper compensation to the federal government.
4. Identify and resolve any mineral material trespass.

Decisions

L&S Min-1: All Plan-level and mineral material mining operations shall submit a nonnative, invasive plant species inventory, monitoring, and control plan in accordance with the BLM Alaska NNIS management policy.

L&S Min-2: All Plan-level mining operations shall submit to the BLM office a copy of any water quality annual report required by the APDES permit (mainly turbidity above and below discharge point) (43 CFR 3809.401).

L&S Min-3: All new and existing mineral material and Notice- and Plan-level placer operations shall designate a specific GPS point, clearly marked on the ground, from which photos of the operation would be taken and submitted to the BLM in the end-of-year report for reclamation. Operations that include stream reclamation would submit photos upstream and downstream of both ends of the reclaimed channel. These photos should be taken at the start and finish of mining operations each mining season until such time as the reclamation has been released from bonding requirements.

L&S Min-4: All lode/hard rock tailings ponds that retain deleterious material shall incorporate best management/industry practices and standards, including backup/alternative water treatment systems that would allow controlled discharge of the treated effluent to avoid overtopping or uncontrolled release of the material/water to the environment.

L&S Min-5: All tailings dam operators that are required to submit a third-party engineering stability/measurement report to meet the State of Alaska Dam Safety Control Criteria would submit a copy of the report to the BLM by September 30 of every other year.

L&S Min-6: All mining operations will comply with the following soils and vegetation reclamation requirements:

- Mine operators must remove, segregate, and preserve topsoil or other suitable growth medium for reclamation as much as reasonably possible. The topsoil or growth medium would be applied after reshaping of the disturbed area has been completed and would be used to promote and sustain revegetation and, subsequently, to minimize erosion. Stockpiling activities must be implemented to preserve soil viability and promote concurrent reclamation.
- Mine reclamation shall include revegetation of disturbed areas where practicable and rehabilitation of fish and wildlife habitat. Revegetation shall comply with the actions for Vegetation (see Section 2.1.5) regarding plant cover and other applicable solid mineral actions. Successful revegetation may lead to the wildlife habitat rehabilitation, but other site and species-specific considerations may be included.
- Mine operators should avoid conducting mining activities in wetlands or riparian areas where possible and minimize impacts on wetlands and riparian areas that operations cannot avoid. Mine operators should reclaim disturbed stream channels and wetlands to a properly functioning condition. Technology and practices must be used such that, at the completion of reclamation, the affected stream segment would be, at minimum, geomorphically stable, with adequate vegetation to reduce erosion, dissipate stream energy, and promote the recovery of instream habitats per the BLM Handbook H-3809-1, Surface Management (BLM 2012a). Stream reclamation would be evaluated using metrics of geomorphic stability based on established science, policy, and/or regional datasets (e.g., AIM-National Aquatic Monitoring Framework). At the completion of reclamation, floodplain conditions should be able to withstand moderate flood discharge events (5- to 10-year flood event) through implementation of features such as, appropriate channel design, proper floodplain grading, vegetation mats or transplants, integrated rock and organic debris, and seeding (if appropriate).

L&S Min-7: Notice- and Plan-level operations that wish to use the State of Alaska Mining Reclamation Bond Pool must submit a reclamation cost estimate as described in 43 CFR 3809.500 if they propose any

of the following activities on BLM-managed lands: operations proposing to mine in the 100-year floodplain; operations on uplands with slopes or cuts greater than 33 percent or with the potential for substantial slope failure related to mining activities; operations at a site where demobilization can only be completed by air or during frozen conditions (winter months); operators with greater than 25 acres of unreclaimed disturbance; or, operations that have an unresolved noncompliance order at the time of bond payment or operators that have a history of noncompliance with BLM regulations.

L&S Min-8: Use and Occupancy Qualifications for Notice-level Operations within the planning area:

- Criteria for Use and Occupancy for Notice-level Operations:
 - The applicant must demonstrate the need for the cabin or structure related to the level of mining proposed.
 - The applicant must use minimal occupancy facilities.
- Structures/Conditions – For Notice-level exploration activities (5 acres or less), all the following are applicable unless the AO determines permanent structures would be allowed based on site-specific analysis:
 - No permanent structures shall be authorized.
 - No grading to accommodate occupancy structures is allowed.
 - No excavation for footings or placement of buried structures is allowed.
 - Related pit privies must be constructed in accordance with State of Alaska regulations. If a privy cannot meet Alaska regulations, all human waste must be carried out.
 - Protective matting required on top of sensitive lichen-rich habitat to protect those areas from pedestrian and motorized traffic. The BLM would make the determination on when this is necessary based on project-specific site clearances.
- Structures Allowed According to Temporary Mining Activities
 - For mining activities that occur up to 8 months annually for a total mine life duration, a temporary tent with platform may be allowed. Tents and platforms must be dismantled and removed from the site at the end of the use season.
 - No permanent structures (as defined in Appendix E) are allowed in riparian areas.

L&S Min-9: For BLM-permitted activities, recommend types of cultural training for people unfamiliar with rural Alaska life and culture.

L&S Min-10: Encourage BLM-permitted operators to use local hire to the extent possible.

L&S Min-11: Potential locatable mineral withdrawals would be recommended by BLM to the Secretary in this Proposed RMP pursuant to Section 204(a) of FLPMA. BLM will comply with the congressional notice provisions of Section 204(c) of FLPMA (43 U.S.C. 1714(c)) and ANILCA § 1326(a) for withdrawals of 5,000 acres or more.

L&S Min-12: EUCAs within the planning area have the following Locatable and Salable Mineral-related management decisions applied:

- Closed to Salable Minerals
- Locatable Minerals – same as **L&S Min-13** below

L&S Min-13: Withdrawal of the Unalakleet Wild River Corridor will be maintained. Map A-18 shows locatable mineral decisions.

L&S Min-14: To protect unique wildlife and subsistence resources, BLM-managed wildlife habitat in Innoko Bottoms is closed to salable mineral development subject to valid existing rights.

L&S Min-15: The South Connectivity Corridor is open to salable mineral development (subject to terms and conditions).

L&S Min-16: Salable mineral development is allowed in caribou and moose habitats subject to actions described for wildlife.

L&S Min-17: The Unalakleet Wild River Corridor will remain withdrawn from mineral entry for salable minerals within the WSR corridor, subject to valid existing rights.

L&S Min-18: The 100-year floodplains of HVWs are open to salable mineral development (subject to terms and conditions).

L&S Min-19: Subject to valid existing rights, the INHT NTMC is open for salable mineral development. Map A-19 shows salable mineral decisions.

2.2.16 Leasable Minerals

Goals

1. The public lands and federal mineral estate will be made available for orderly and efficient exploration, development, and production of leasable mineral resources (includes oil, natural gas, tar sands, coal bed methane, and geothermal steam), unless withdrawal or other administrative action is justified in the national interest.
2. All leasable minerals actions will comply with goals, objectives, and resource restrictions (mitigations) to protect other resource values in the planning area.

Objectives

1. If demand arises, provide opportunities for environmentally responsible exploration and development of leasable mineral and energy resources subject to appropriate BLM policies, laws, and regulations.

Decisions

LE Min-1: Oil and Gas. Conditions of Approval for Applications for Permit to Drill would allow necessary impacts in order for development to be technically feasible or economically viable.

LE Min-2: Oil and Gas. Exceptions to lease stipulations and Conditions of Approval would be allowed when site-specific analyses showed impacts to sensitive resources were within acceptable limits.

LE Min-3: Oil and Gas. Well spacing requirements for oil and gas resource protection would defer to the Alaska Oil and Gas Conservation Commission guidance with consideration for surface resource values.

LE Min-4: Any locations within the planning area recommended for withdrawal from locatable mineral entry would also be NSO for oil and gas.

LE Min-5: Coal. All BLM-managed public lands within the planning area subject to leasing under 43 CFR 3400.2 are open to coal exploration and study, with the exception of the INHT NTMC. The coal screening process (as identified by 43 CFR 3420.1-4) has not been conducted in this planning area; therefore, leasing is deferred until this screening process has been completed. Interest in exploration or leasing of federal coal would be handled on a case-by-case basis. If an application for a coal lease should be received in the future, an appropriate land use and environmental analysis, including the coal screening process, would be conducted to determine whether or not the coal areas are acceptable for further consideration for leasing and development under 43 CFR 3420.1-4. The BSWI RMP would be amended as necessary before coal leasing could occur. In accordance with 43 CFR 3400.2, coal leases shall not be issued on federal lands within the National System of Trails (see BLM Manual 6280 Section 4.2(E)(6)(i)).

LE Min-6: Coal. Leasing is subject to BMPs and SOPs (Appendix B).

LE Min-7: Coal. Coal exploration and leasing must comply with the Mineral Leasing Act of 1920; the Surface Mining Control and Reclamation Act of 1977; the Federal Coal Leasing Amendments Act of 1976; the Mineral Leasing Act for Acquired Lands of 1947, as amended; FLPMA; coal regulations; and coal planning criteria.

LE Min-8: Coal. With appropriate limitations and mitigation requirements for the protection of other resource values, all BLM-managed public lands and federal coal lands in the planning area, except for those lands identified as closed, are open to coal resource inventory and exploration to help identify coal resources and development potential.

LE Min-9: Coal. Only those BLM-managed public lands that have development potential may be identified as acceptable for further consideration for coal leasing (Map A-20).

LE Min-10: Oil Shale. Oil shale exploration and leasing must comply with the Mineral Leasing Act of 1920; the Mineral Leasing Act for Acquired Lands of 1947, as amended; FLPMA; and oil shale regulations and planning criteria.

LE Min-11: Oil Shale. Oil shale will be leased in accordance to 43 CFR 3900.

LE Min-12: Non-Energy Solid Minerals. Non-energy leasable minerals exploration and leasing must comply with the Mineral Leasing Act of 1920; the Mineral Leasing Act for Acquired Lands of 1947, as amended; FLPMA; the Reorganization Plan No. 3 of 1946; and non-energy leasable minerals regulations and planning criteria.

LE Min-13: Non-Energy Solid Minerals. Non-energy leasable minerals is subject to 43 CFR 3500.

LE Min-14: Other Leasable Minerals. Unless already closed under other legal or regulatory requirements or proposed to be closed in management actions described below, the entire planning area is open to development of other leasable minerals/products (e.g., geothermal). Issuance of these mineral leases would be determined based on compatibility with the resource objectives and management requirements of this plan.

LE Min-15: For BLM-permitted activities, recommend types of cultural training for people unfamiliar with rural Alaska life and culture.

LE Min-16: Encourage BLM-permitted operators to use local hire to the extent possible.

LE Min-17: Appropriate SOPs listed in Appendix B shall be applied to operations conducted under future leases.

LE Min-18: EUCAs within the planning area are closed to Leasable Minerals.

LE Min-19: The 100-year floodplains of HVWs are NSO leasable.

LE Min-20: Wildlife. Controlled surface use stipulation: No leasable or salable operations allowed in known caribou calving concentrations from April 15–May 31.

LE Min-21: Standard leasing terms and conditions apply for leasable minerals in known moose calving and wintering concentrations.

LE Min-22: Innoko Bottoms Priority Wildlife Habitat area and the South Connectivity Corridor will be NSO for leasable development.

LE Min-23: To protect migratory birds, no mineral leasing in riparian areas.

LE Min-24: Subject to valid existing rights, the INHT NTMC is NSO leasable.

LE Min-25: The Unalakleet Wild River Corridor shall remain closed to leasable mineral development, subject to valid existing rights.

See Map A-21.

2.2.17 Lands and Realty

Goals

1. Meet public needs for use authorizations such as ROWs, leases, and permits while minimizing adverse impacts to resource values.
2. Retain lands within the BLM's administration except where necessary to accomplish resource goals and objectives outlined in the RMP. The BLM would transfer lands out of federal ownership or acquire non-federal lands where needed to accomplish resource goals and objectives, improve administration of public lands, or meet essential community needs.
3. Acquire and maintain access to public lands to improve management efficiency, facilitate multiple use, and promote the public's enjoyment of these lands in coordination with other federal agencies, State and local governments, and private landowners.

Objectives

1. Consolidate land management to accomplish resource goals and objectives outlined in the Plan.
2. Determine if existing ANCSA 17(d)(1) withdrawals should remain in place or if a recommendation should be forwarded to the Secretary to revoke. Determine if new withdrawals

should be recommended to the Secretary to protect identified areas with resource or management concern.

3. Manage 17(b) easements reserved in patents or interim conveyances to ANCSA corporations for continued access to public lands in accordance with the ANCSA 17(b) Easement Management Handbook (BLM 2007b).

Decisions

Lands-1: Recreation and Public Purposes (R&PP) Act. Lands will be made available for lease or sale to benefit local communities per the criteria for R&PP Act.

Lands-2: R&PP Act. R&PP Act patents in which the United States has reserved a reversionary interest will be evaluated and addressed at the implementation level, based on BLM management needs. Reserved federal interests in split estate lands anywhere in the planning area may be considered for conveyance out of federal ownership.

Lands-3: Land Exchange Criteria. Land exchange will be considered at the implementation level to benefit public interests. Exchanges will focus on efficient management of public lands and objectives including protection of fish and wildlife habitats, cultural resources, wilderness and aesthetic values, enhancing recreational opportunities, and community expansion. Exchanges generally will not be pursued until final State and Native entitlement is reached.

Lands-4: Land Exchange Criteria. Once ANCSA and State of Alaska conveyances are completed, retain large blocks of BLM-managed public lands in the following areas:

- Unalakleet south to Yukon River and east to Yukon River
- Nikolai south to Lime Village

Lands-5: Land Exchange Criteria. Exchange small, isolated parcels to manage more contiguous landscape-level ecosystem health units, to reduce fragmentation and improve ecosystem health and to allow more efficient, cost-effective management.

Lands-6: Withdrawals. All withdrawals held by BLM or other agencies shall be maintained unless the BLM or other agency requests relinquishment (e.g., Department of Army withdrawal for a 1.48-acre parcel in Tuluksak for a National Guard Armory).

Lands-7: Land Acquisition Criteria. The BLM generally will prioritize acquisitions in the event there is a willing seller.

Lands-8: Land Acquisition Criteria. Acquire parcels that would allow management of a more contiguous landscape that would reduce the potential for habitat fragmentation to improve ecosystem health and maximize land management goals.

Lands-9: Land Acquisition Criteria. Prioritize acquisitions of inholdings in the Unalakleet Wild River or INHT inholdings where no INHT easement reservation exists (easements only or entire parcel if the surrounding lands are in federal ownership).

Lands-10: Land Acquisition Criteria. Acquired parcels will be managed consistent with management of adjacent parcels until specific management is identified for the acquired parcels.

Lands-11: ROWs. ROW Avoidance Areas are areas to be avoided but may be available for location of ROWs with special stipulations as long as new ROW application documentation demonstrates: (1) the other locations researched and reasons each is not feasible, and (2) project design features/mitigation measures are incorporated to minimize resource concerns. Decisions to grant a ROW within a ROW Avoidance Area would be made by the AO after project-specific NEPA has been completed.

Lands-12: ROWs. ROW Avoidance Areas for Linear Realty Actions are areas where new linear ROWs are to be avoided and placed in other areas if feasible. Areas may be available to location of linear ROWs with special stipulations as long as the new linear ROW application documentation demonstrates: (1) the other locations researched and reasons each is not feasible, and (2) project design features/mitigation measures are incorporated to minimize resource concerns. Decisions to grant a linear ROW within a linear ROW Avoidance Area would be made by the AO after project-specific NEPA has been completed.

Lands-13: ROWs. Authorizations for ROW will be processed according to the standard process subject to any designated Exclusion or Avoidance Areas. This process allows the proposed action to be reviewed based on the project being proposed and the site-specific resources or issues that relate to the project. Each analysis and decision is separate and distinct from another.

Lands-14: ROWs. As required based on changes in climate, the BLM will consider providing opportunities for community relocation through the use of ROW grants, permitting, exchanges, R&PP, leases, or other appropriate permitting actions as determined mutually beneficial for the community and the long-term sustainability of BLM-managed public lands.

Lands-15: ROWs. Linear projects will be co-located within existing ROWs to the maximum extent practical. Determination of ROW routes will be made in consultation with the State of Alaska and other relevant cooperating agencies.

Lands-16: ROWs. Authorized ROWs will incorporate design features to minimize disruption of caribou passage in all known caribou migration routes or where essential winter habitat exists.

Lands-17: ROWs. Existing roads and trails will be utilized for access where feasible, rather than creating new roads and trails.

Lands-18: ROWs. The BLM will consider the safety and navigation benefits to inter-village travelers when processing communication site ROW applications.

Lands-19: ROWs. ROW authorizations issued on selected lands will be treated as follows:

- ANCSA corporation Native-selected: Prior to the issuance of a ROW use authorization, the views of the ANCSA Native corporation shall be obtained and considered. Rent received for any use authorization or trespass on Native-selected lands would go into an escrow account.
- State of Alaska–selected: In accordance with 906(k)(1) of ANILCA, the BLM must receive a letter of concurrence prior to issuance of any use authorization. If the lands are conveyed to the State of Alaska, the use authorization would be transferred to the State for future administration. In accordance with 906(k)(2) of ANILCA, 90 percent of any rent received from any use authorization or trespass on State-selected lands would go into an escrow account. This is not required on top-filed lands unless, and then from the date, the selection attaches.

Lands-20: ROWs. For BLM-permitted activities, recommend types of cultural training for people unfamiliar with rural Alaska life and culture.

Lands-21: Permits and Leases. No permits or leases will be granted for private recreational cabins unless otherwise provided for in BLM policy or regulation.

Lands-22: Permits and Leases. Proposals for non-private recreational cabin permits and leases would be processed on a case-by-case basis subject to FLPMA and 43 CFR 2920.

Lands-23: Permits and Leases. In accordance with 43 CFR 2920, existing trespass cabins shall be removed, put under permit or lease, or turned into government administrative sites. This would be determined at the site-specific implementation level, as determined by the AO.

Lands-24: Permits and Leases. Use authorizations issued on selected lands will be treated as follows:

- ANCSA corporation Native-selected: Prior to the issuance of a use authorization, the views of the ANCSA Native corporation will be obtained and considered. Rent received for any use authorization or trespass on Native-selected lands would go into an escrow account.
- State of Alaska–selected: In accordance with 906(k)(1) of ANILCA, the BLM must receive a letter of concurrence prior to issuance of any use authorization. If the lands are conveyed to the State of Alaska, the use authorization would be transferred to the State for future administration. In accordance with 906(k)(2) of ANILCA, 90 percent of any rent received from any use authorization or trespass on State-selected lands would go into an escrow account. This is not required on top-filed lands unless, and then from the date, the selection attaches.

Lands-25: ANCSA Section 17(b) Easements. The BLM will continue to review and reserve ANCSA Section 17(b) easements under the law and regulations to ensure legal access to publicly owned lands while the remainder of the ANCSA corporations' land entitlements are conveyed. On-the-ground management of easements is the responsibility of the federal DOI landowner the easement accesses; i.e., the BLM, NPS, or the USFWS. Other federal agencies, the State of Alaska, or an Alaska borough or municipal government may assume administration of a specific easement, or easements.

Lands-26: ANCSA Section 17(b) Easements. The BLM is committed to working with the landowner, State, and other federal agencies to locate, mark, and monitor easements and help educate easement users to understand the rights reserved to the United States and the rights of the private landowner, subject to availability of funds, personnel, and approval. Priority will be based on the following:

- Easements accessing lands that would be permanently managed by the BLM or that are important to BLM programs
- Easements receiving high use
- Easements required to implement an activity or implementation plan
- Easements where landowners support the activity allowed by the easement
- Easements where maintenance or education would mitigate environmental damage to the easement or BLM-managed lands

These criteria will be used to prioritize other discretionary actions, such as maintenance on 17(b) easements. Realignment of reserved 17(b) easements would be considered at the implementation level to resolve on-the-ground issues.

Lands-27: ANCSA Section 17(b) Easements. Authorization from the BLM is not necessary prior to use of a 17(b) easement. 17(b) easements are reserved on specific routes for specific kinds of vehicles and can be subject to seasonal restrictions (e.g., summer use only or winter use only). Public uses not reserved in the easement would have to seek authorization from the landowner for any use of the lands outside of what is reserved in the easement.

Lands-28: ANCSA Section 17(b) Easements. Some 17(b) easements are made discontinuous by private lands. Acquisition of easements across or around these lands would be from willing landowners as the need or opportunity arose, subject to the availability of funds.

Lands-29: The Unalakleet Administrative Site is recommended for withdrawal from mineral location and entry under the mining laws and leasing under the Mineral Leasing Act to the Secretary.

Lands-30: Subject to valid existing rights, EUCAs within the planning area have the following Lands and Realty-related management decisions applied:

- ANCSA 17(d)(1) withdrawals – same as **Lands-31** below
- FLPMA Withdrawals – same as **Lands-32** below
- FLPMA ROW Exclusion & Avoidance Areas – same as **Lands-33** below
- Wind Energy Development – same as **Lands-34** below
- Permits and Leases – same as **Lands-35** below
- Exchanges – same as **Lands-37** below
- Should these EUCAs become null and void after the State's entitlement is fulfilled (the BLM would not be able to convey additional land to the State) or, if the State declines to accept one of these parcels, the claims would meet BLM's disposal criteria of being impractical or uneconomical to manage.

Lands-31: Recommend the Secretary of the Interior revoke all ANCSA 17(d)(1) withdrawals.

Lands-32: Subject to valid existing rights, recommended new FLPMA withdrawals for the existing INHT treadway in the following locations (Map A-22):

- Farewell Burn unit (1,000-foot-wide buffer centered on the treadway plus the Bear Creek Cabin and access trail): 2,732 acres
- Kaltag Portage unit (1,000-foot buffer centered on the treadway, but outside of Unalakleet Wild River withdrawal): 1,897 acres
- Rohn Site (entire parcel): 363 acres

The determination on whether the FLPMA withdrawal would include salable, leasable, and/or locatable minerals would be determined when the withdrawal is recommended. The withdrawal for the Unalakleet Wild River Corridor shall be maintained. A new FLPMA withdrawal shall be established at the Unalakleet Administrative Site. See Maps A-18, A-21, and A-23.

Lands-33: ROW avoidance decisions apply to ROW Avoidance Areas and ROW Avoidance Areas for linear realty actions as described below. The mapped areas encompass 922,977 acres in total.

Subject to ANILCA Title XI and valid existing rights, the following would be FLPMA ROW Avoidance Areas (509,798 acres):

- INHT NTMC
- Innoko Bottoms Priority Wildlife Habitat Area
- Unalakleet Wild River Corridor

Unmapped areas include:

- Tundra mats
- Riparian areas
- Permafrost areas
- Areas with BLM Sensitive Plants
- The following five identified rare ecosystems
 - Pingos in Interior Alaska that support forests
 - Tamarack (*Larix laricina*) dominated associations
 - Dunes that have been stabilized by forests; typically, Aspen-Black spruce
 - Limestone geologic substrate
 - Serpentine geologic substrate
- Highly erodible soils would be FLPMA ROW avoidance for underground utilities only

Subject to ANILCA Title XI and valid existing rights, the following will be FLPMA ROW Avoidance Areas for linear realty actions (413,179 acres):

- South Connectivity Corridor

See Map A-24.

Lands-34: The INHT NTMC is excluded from wind energy development unless it is permitted under ANILCA Title XI.

Lands-35: The distance between trapping cabins would be determined at the implementation level based on documented conflict.

Lands-36: Granting of permits and leases in conservation system units (CSUs) would be determined at the implementation level based on the compatibility of the permits and leases with management goals of these areas and the requirements in accordance with ANILCA allowances.

Lands-37: The following categories of parcels in the planning area are available for exchange:

- Category 1 includes unselected land in BLM ownership adjacent to State or Native patented lands that are 1.5 townships (34,560 acres) or smaller that the BLM would consider for exchange.
- Category 2 includes State or Native selected lands that are 1.5 townships (34,560 acres) or smaller that, if these selected lands remain in BLM ownership after the conveyance process, the BLM would consider for exchange.
- Category 3 includes unselected land in BLM ownership that are 1.5 townships (34,560 acres) or smaller that are adjacent to State or Native selected land that, if these selected lands are conveyed, the BLM would consider for exchange.

The BLM will not consider parcels for exchange if they are found in the following areas:

- Areas with important cultural or fish values
- South Connectivity Corridor

A total of approximately 356,343 acres are available for exchange. Details on these parcels and their legal descriptions are found in Appendix H.

Lands-38: No parcels are available for disposal.

2.2.18 Recreation and Visitor Services

Goals

1. Within the identified recreation management areas, manage for the primary activities to achieve the identified experiences and benefits.
2. Plan for and manage the physical, social, and operational settings within each area and the activities that occur within them.
3. Increase and improve collaboration with communities within the planning area, businesses, and BLM permittees.
4. Focus the recreation program and administer special recreation permits to conserve the identified recreation outcomes, manage visitor use, protect recreational and natural resources, provide fair market value to the United States, and provide for health and safety of visitors.
5. Provide basic visitor services, including interpretation, information and education in the context of the desired recreation setting.

Objectives

1. Throughout the life of the plan, evaluate visitor satisfaction on a 5-year basis using such methods as field visits, staff monitoring, and surveys. The objective is to manage recreation such that the minimum visitor satisfaction achieves a rating of 75 percent.
2. Throughout the life of the plan, manage the planning area's recreation setting character as a range from front country to back country as further defined by outcomes-focused management objectives for recreation management areas.
3. Throughout the life of the plan and within the INHT Special Recreation Management Area (SRMA), manage for the primary activities of dog mushing and snowmobile riding, secondary activities of trapping and hunting.
4. Throughout the life of the plan, and within the INHT SRMA, provide a setting in which the following experiences and benefits could be achieved:
 - Experiences
 - Gain recognition from others for using the trail.
 - Tell others about the trip.
 - Enjoy exploring on one's own.
 - Enjoy participation in group outdoor events.
 - Enjoy strenuous exercise.

- Escape everyday responsibilities.
- Experience and feel good about solitude, isolation, and independence.
- Experience and enjoy adventure.
- Experience and enjoy the sights, sounds, and smells of nature.
- Test one's endurance (secondary experience).
- Benefits
 - Benefits (personal)
 - Greater self-reliance
 - Improved outdoor recreation skills
 - Enhanced awareness and understanding of nature
 - Enhanced sense of personal freedom
 - Enhanced sense of competence
 - Greater sense of adventure
 - Benefits (community/social)
 - Heightened awareness of natural world
 - Improved community closeness and bonding
 - Greater family bonding
 - Enlarge sense of community dependency on public lands
 - Increased independence/autonomy
 - Greater interaction with visitors from different cultures
 - Benefits (environmental)
 - Greater retention of distinctive natural landscape features
 - Reduced negative impacts such as litter, vegetative trampling, and unplanned trail construction.
- 5. Throughout the life of the plan, and on an annual basis, manage the INHT SRMA for the following Recreation Setting Characteristics (RSCs):
 - Physical
 - The INHT SRMA is more than 0.5 mile from paved roads, and the existing natural landscape has been retained and modifications to the landscape are not evident. Visitor facilities consist of simple/basic recreation developments such as shelter cabins and trail signs.
 - Social
 - There are two seasons of use on the INHT SRMA; the high season occurs from February to March, and visitors can expect to see an average of 15-29 people on the trail per day, in group sizes of four to six. The low season occurs April to January, and visitors can expect to see fewer than three other people each day. Evidence of use is limited to small localized areas with vegetation impacts. Wood lathe with reflective tape from permitted events is occasionally seen along the trail. Signs identifying the INHT would be visible at access points, cabins, and periodically along the trail.
 - Operational
 - Public access is predominantly by snowmobile, with a lesser use by dog sleds, winter mountain bikes, and cross-country skiing. No full-size vehicles would be in use. Visitor

information would consist of maps available at BLM offices and shelter cabins, websites, and minimal signage along the trail.

- Signs should be directional in nature with the exception of BLM public shelter cabins, which may also provide educational and interpretive signs. BLM staff would be present occasionally, most frequently during permitted events.
 - Partnerships should be explored and utilized to maintain a minimal management presence.
 - Management controls should include, but not be limited to, limits to group size, limits to duration of stay, waste management (human and litter), and permitted activities and commercial filming. Dispersed recreation uses would be lightly managed, with little to no cost to the public.
6. Within the Rohn Recreation Management Zone (RMZ) of the INHT SRMA, manage for the primary activities of group use, camping and hunting, and for the secondary activities of snowmobile riding and sightseeing. Monitoring by staff to ensure this objective is being met should be performed on an annual basis, with an emphasis on winter months.
7. Within the Rohn RMZ, provide a setting in which the following experiences and benefits could be achieved:
- Experiences
 - Testing one's endurance
 - Enjoying a risk-taking adventure
 - Experiencing togetherness with similar people
 - Participating in group outdoor activities
 - Being in control of things that happen
 - Enjoying the sights, sounds, and smells of nature
 - Enjoying an escape from crowds of people
 - Gaining recognition from others for completing a trip to Rohn RMZ
 - Feeling good about solitude, isolation, and independence
 - Benefits
 - Personal
 - Greater self-reliance
 - Improved skills for outdoor enjoyment, both by one's self and in group settings
 - Improved outdoor knowledge and self-confidence
 - Increased adaptability
 - Stronger ties with family and friends
 - Become a more well-informed and responsible visitor
 - Increase one's personal relationship with the natural world
 - Gain a greater sense of adventure
 - Community/Social
 - Increased awareness of nearby communities
 - Increased revenue to nearby communities
 - Greater protection of area historic structures

- Environmental
 - Heightened awareness of the natural world
 - Greater management of fish, wildlife, and plant resources
8. Throughout the life of the plan, and on an annual basis, manage the Rohn RMZ for the following RSCs:
- Physical
 - Rohn is within 0.5 mile of a trail and airstrip.
 - An unmaintained gravel airstrip, cabin, and toilet have partially modified the existing natural landscape but are not visible from the entire zone.
 - Simple/basic recreation developments such as the Rohn shelter cabin and primitive toilet, hazardous materials storage locker, portal sign, and site maintenance tools are found on site.
 - Social
 - There are two seasons of use at the Rohn RMZ; the high season occurs from February to March, and visitors can expect to see an average of 15-29 people on the trail per day, in group sizes of three or fewer. The low season occurs April to January, and visitors can expect to see fewer than three other people each day, which often consists of passengers of small airplanes landing at the site.
 - Evidence of use is limited to small localized areas of vegetation alteration and compacted/bare soils at the shelter cabin and adjacent to the airstrip. Surface vegetation would continue to be managed to allow minimal wear and bare soils along the trail.
 - Operational
 - Winter access is predominantly by aircraft, with some dog mushing, winter mountain biking, and snowmobile riding. Summer access is possible by aircraft and small inflatable watercraft only.
 - Visitor information should consist of maps available at BLM offices and shelter cabins, websites, and minimal signage at the cabin and along the trail. Signs would be directional in nature.
 - BLM staff should be present occasionally, most frequently during permitted events. Partnerships should be explored and utilized to maintain a minimal management presence.
 - Management controls should include, but not be limited to, limits to group size, limits to duration of stay, waste management (human and litter), and permitted activities and commercial filming.
 - Dispersed recreation uses should be lightly managed and little to no cost to the public.
 - Shelter cabin rules should be posted in plain sight at the cabin. Permitted use such as organized group activities includes restrictions, limitations, and stipulations on such acts as group size, camping ethics, human waste, and litter disposal.
9. Within the BSWI Undesignated Recreation Lands throughout the remainder of the planning area and outside of the INHT SRMA, dispersed recreation uses should be lightly managed and without cost to the public for the primary activities of hunting and dispersed camping and for the secondary activities of snowmobile riding and fishing. Because recreation values are considered uniform across the BSWI planning area, the BSWI Undesignated Recreation Lands area applies uniformly to all areas not managed as the INHT SRMA, Rohn RMZ. The table for Undesignated

Recreation Lands in Appendix I contains additional desired experiences, beneficial outcomes, and administrative decisions for this area (Appendix I). The Undesignated Recreation Lands are scattered across the North and South Nulato Hills, the Yukon River Lowlands, the Kuskokwim Mountains, the Tanana-Kuskokwim Lowlands, the Lime Hills, and the Ahklun Mountains.

Decisions

Rec-1: Undesignated Recreation Lands. SRPs are issued according to BLM regulations, see 43 CFR 2932.50.

Rec-2: Undesignated Recreation Lands. New facilities or development or site-specific restrictions are allowable consistent with site protection, visitor safety, or enhancement of targeted outcomes and setting character.

Rec-3: Undesignated Recreation Lands. Aircraft use is unrestricted and associated minimal clearing of rocks, downed logs, and brush is allowed on landing areas.

Rec-4: Undesignated Recreation Lands. Issuance of SRPs will include appropriate stipulations for the protection and management of natural, cultural, and paleontological resources and shall minimize potential impacts to those resources to the extent practicable.

Rec-5: Undesignated Recreation Lands. Commercial, competitive, organized group activities, vending, special area use, and commercial filming in conjunction with an SRP or a land use permit may be authorized according to the normal permitting process at the implementation level. Factors for approving an application for an SRP include, but may not be limited to:

- Application is made at least 180 days prior to the requested use period, unless otherwise granted by the AO.
- The proposed recreation use complies with this RMP's resource allocations and existing rules and regulations.
- If applicable, the applicant is in good standing with other land management agencies.
- For activities that require more than 50 hours of BLM staff time for planning or oversight, the applicant agrees to a cost recovery agreement, unless otherwise determined by the AO.
- The duration of SRP permits would depend upon the precedent-setting nature or risk associated with the permit. New or riskier permits may be shorter duration whereas lower risk permits or permits for known activities may be issued for longer time periods. This would be determined at the permitting level by the AO.

Rec-6: Undesignated Recreation Lands. Following an adaptive management approach, the BLM shall, as deemed appropriate, monitor in areas of recreational and/or concentrated use with baseline conditions, impact thresholds, and triggers for actions that would be established for the purposes of resource protection, visitor safety, or enhancing targeted outcomes and setting character.

Rec-7: Undesignated Recreation Lands. Develop new restrictions and facilities, as needed and deemed appropriate, for the purposes of site protection, visitor safety, or enhancing targeted outcomes and setting character (Appendix I).

Rec-8: Undesignated Recreation Lands. For BLM-permitted activities, recommend types of cultural training for people unfamiliar with rural Alaska life and culture.

Rec-9: INHT SRMA (see Map A-25). OHV area designation is established as Limited (details on limitations are provided in Section 2.2.7).

Rec-10: INHT SRMA (see Map A-25). See SRMA table for INHT SRMA for desired experiences, beneficial outcomes, and administrative decisions for this area (Appendix I).

Rec-11: INHT SRMA (see Map A-25). Apply administrative actions to create and maintain semi-primitive motorized recreation opportunities, experiences and outcomes.

Rec-12: Rohn RMZ. The Rohn Site RMZ will be established (363 acres) within the INHT SRMA.

Rec-13: Rohn RMZ. Except for emergency situations, only the use of dead and down trees for the wood stove in the BLM Public Shelter Cabin is allowed.

Rec-14: Rohn RMZ. Non-permitted use is limited to 3 consecutive days, and to no more than 6 days in total in a calendar year.

Rec-15: Unalakleet Wild River Decisions. Apply administrative actions as needed to protect and enhance the river's free-flowing condition, water quality, outstanding remarkable values (ORVs) and the associated federal reserve water rights, and wild river classification.

Rec-16: EUCAs within the planning area have the following Recreation and Visitor Management-related management decisions applied:

- Undesignated Recreation Lands General Management Actions listed above would apply.
- INHT SRMA Decisions
 - INHT SRMA – same as **Rec-18** below
 - Travel Decisions – same as **Rec-19** below
 - BLM INHT Public Shelter Cabin Use – same as **Rec-21** below

Rec-17: Stay limits for non-permitted dispersed camping are limited to 14 consecutive days within a 28-day period. After a camp has been occupied for 14 days, the camp must be moved at least 2 miles to start a new 14-day period unless reviewed and approved by the AO.

Rec-18: Designate the INHT SRMA. SRMA-specific objectives and the management framework for each can be found in Appendix I.

The SRMA will comprise the following areas:

- Farewell Burn – located south of Nikolai, Alaska (31,367 acres)
- Kaltag Portage – located between Unalakleet and Kaltag, Alaska (241,512 acres)
- Rohn – located southeast of Nikolai (363 acres)
- Iditarod-Anvik Connecting Trail (67,333 acres)

See Map A-25.

Rec-19: The INHT SRMA will follow travel and transportation management decisions for the INHT TMA:

OHV designation = Limited

Summer Casual and Subsistence Access:

- Casual and subsistence summer OHV access would be prohibited.

Winter Casual and Subsistence Access:

- Winter cross-country casual and subsistence access allowed for snowmobiles only.
- If winter casual and subsistence snowmobile access results in degradation of the resources or prevents trail management that meets requirements of the National Trails Act, then this will be prohibited in affected areas.

The BLM will develop a Travel Management Plan for the INHT NTMC TMA, including the inventory and designation of routes for motorized, non-motorized, and non-motorized mechanized use.

Rec-20: The Rohn Site has separate travel management:

OHV designation = Limited

Summer Casual and Subsistence Use:

- The Rohn Site will eliminate summer seasonal casual use and subsistence OHV use if the AO finds that such use is causing or is likely to cause an adverse impact.

Winter Casual and Subsistence Use:

- Winter casual and subsistence OHV use would be open to cross-country travel with snowmobiles only (as defined in Appendix E).

The BLM will develop a Travel Management Plan for the Rohn Site, including the inventory and designation of routes for motorized, non-motorized, and non-motorized mechanized use.

Rec-21: There is a 3-day stay limit in public shelter cabins for casual use. Only the use of dead and down trees for shelter cabin wood stoves is allowed. Cutting of live trees is prohibited.

Rec-22: The 2012 Memorandum of Understanding between the BLM (and other federal agencies) and the American Indian Alaska Native Tourism Association (AIANTA) provides for opportunities to mutually enhance tourism, travel, and recreation on federal and tribal lands. The 2016 Native American Tourism and Improving Visitor Experience Act provides an additional mechanism to increase tourism capacity in Native communities and coordination with federal agencies.

The BLM shall cooperate with AIANTA to carry out activities that facilitate the development of sustainable projects and policies that promote the management of public and tribal lands in ways that enhance cultural tourism in the planning area.

2.2.19 Travel and Transportation Management

Goals

1. Meet the minimalization criteria in 43 CFR 8342 and/or manage the transportation network to reduce fragmentation and reduce impacts to habitat.
2. Provide for traditional community access, per ANILCA requirements.
3. Support education and outreach programs that promote trail ethics, travel safety, and public land stewardship.

Objectives

1. Educate trail users about allowable modes of travel, designated routes, and seasons of use on BLM-managed public lands.
2. Reduce conflicts and competition between recreational OHV activities and subsistence access to resources.
3. Conduct monitoring of transportation systems to ensure resource management objectives are being met.

Travel Management Definitions

The following travel management definitions are defined below for ease in understanding the decisions:

1. Off-Highway Vehicle (OHV) Categories
 - **Utility Terrain Vehicle (UTV):** Any recreational motor vehicle other than an ATV (as defined below), motorcycle, or snowmobile (as defined below) designed for and capable of travel over unpaved roads, traveling on four or more low-pressure tires, with a curb weight of 1,500 pounds or less, (2,000 pounds gross vehicle weight rating [GVWR]), and a maximum width of 66 inches. Examples include (but are not limited to) production “quad/side-by-sides” and Argos. Utility type vehicles do not include vehicles specially designed to carry a person with disabilities.
 - **All-Terrain Vehicle (ATV):** A wheeled vehicle other than a snowmobile that is defined as having a curb weight of 1,000 pounds or less (1,500 pounds GVWR) and a maximum width of 50 inches, steered using handlebars, travels on three or more tires (no tracks), and has a seat designed to be straddled by the operator. Examples include (but are not limited to) production “four wheelers.”
 - **Motorcycle:** Motorized vehicle with two tires and with a seat designed to be straddled by the operator. This includes motorcycles converted to run on a track(s) and ski(s) specifically over snow. A motorcycle is capable of either on- or off-highway use.
 - **Snowmachine, Snowmobile:** A motorized vehicle 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 a maximum width of 50 inches or less that is steered using handlebars and has a seat designed to be straddled by the operator. Examples include (but are not limited to) production snowmobiles. Snowmobiles do not include machinery used strictly for the grooming of non-motorized trails.

- **Over-Snow Vehicle (OSV):** A motor vehicle designed or converted for use over snow that is not a snowmobile (as defined above), runs on a track or tracks, uses a ski or skis or track for turning, and has a vehicle width greater than 50 inches. Examples include (but are not limited to) vehicles or trucks converted to tracks, snow cats, snow buses, and Nodwells. All OSVs would require a pre-use authorization for use of this vehicle type.

2. Seasons and Types of OHV Access

- **Winter:** Any time there is adequate snow cover or frost to allow the operation of OSVs or snowmobiles (as defined above) without damaging surface vegetation and soils (43 CFR 36 ANILCA Special Access Provision). Adequate snow cover or frost shall mean snow of sufficient depth, generally 6-12 inches or more, or a combination of snow and frost depth, sufficient to protect the underlying vegetation and soil.
- **Summer:** Any time there is not adequate snow cover or frost to allow the operation of OSVs or snowmobiles without damaging surface vegetation and soils.
- **Subsistence Use:** Includes any use of surface use transportation as a means of access to subsistence resources as provided for under ANILCA § 811 and/or § 1110, described in detail under Section 2.3.1.
- **Casual Use:** Includes any use of motorized vehicle that is not for subsistence, military, or emergency purpose and is not related to a permitted, authorized or administrative activity authorized by the BLM or otherwise officially approved. Casual use is synonymous with Off-Road Vehicle/OHV use as defined by 43 CFR 8340.0-5.

3. Route Types

- **Road:** A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use.
- **Primitive Road:** A linear route managed for use by four-wheel drive or high-clearance vehicles. Primitive roads do not normally meet any BLM road design standards.
- **Trail:** A linear route managed for human-powered, stock, or OHV forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.
- **Primitive Route:** Any transportation linear feature located within a wilderness study area or lands with wilderness characteristics prioritized for management of lands with wilderness character by a land use plan and not meeting the wilderness inventory road definition.
- **Transportation Linear Disturbance:** An existing user made route that is not actively managed by BLM. The decision regarding whether to retain or close this type of transportation linear feature would be made through implementation-level travel management planning.
- **Temporary Route:** Short-term overland roads, primitive roads, or trails authorized or acquired for the development, construction, or staging of a project or event that has a finite lifespan.
- **Treadway:** The actively used surface of a trail (FHWA 2007).

Decisions

TM-1: General Transportation Management Decisions. Areas known to have high OHV use will be prioritized for natural and cultural resource surveys, as deemed appropriate and dependent on changing funding and circumstances, to assess levels of impact to these resources (see also Section 2.1.9, Cultural Resources).

TM-2: General Transportation Management Decisions. Those OHVs transported by aircraft or boats to areas with special designations are subject to all OHV limitations specified for that special designation.

TM-3: General Transportation Management Decisions. BLM-managed public lands in the planning area will be designated as “Limited” to motorized travel with exceptions noted in management actions below. Designation of an area as “Limited” is a planning-level decision. Identification of specific limitations within the “Limited” designation (e.g., vehicle weight, vehicle width) are implementation-level planning decisions and will be developed as part of a travel and transportation plan that would be completed by the BLM subsequent to this RMP. The criteria guiding the development of these implementation-level plans are described below. Additionally, this RMP provides interim guidance on types of limitations until the implementation-level plans are completed. The interim guidance this RMP provides regarding types of limitations is provided in the management decisions below. The “limited” designation for OHV use will be implemented based on 43 CFR 8342.1. Limitations to motorized access employed by rural residents engaged in subsistence uses will be implemented based on ANILCA §§ 811(a) and (b) and would not go into effect until the restriction or closure process is followed (36 CFR 13.460(b); 50 CFR 36.12(b)). Closures and restrictions to traditional activities and for travel to and from villages and homesites authorized in ANILCA § 1110(a) would not go into effect until the closure process is followed and only upon a finding by the BLM that such use would be detrimental to the resource values of the unit or area in accordance with 43 CFR 36.11(h). This also applies to interim guidance (43 CFR Part 36).

TM-4: Criteria for Implementation-Level Travel Planning:

- Travel management planning will be completed when practicable, in accordance with BLM’s Manual 1626, Travel and Transportation Management Manual (BLM 2016b).
- The BLM will develop travel management plans identifying travel routes.
- If summer use routes are identified during implementation-level travel management planning, these designations would be based on the minimization criteria found in 43 CFR 8342.1 and the following criteria:
 - Prioritize a route system on lands of high resilience to repeated passage of summer OHVs.
 - Include existing routes (routes listed on Map A-30 and others identified during implementation-level travel planning) accessing subsistence resources in the designated route network.
 - Reduce redundant or social trails accessing the same areas and resources unless multiple routes are found necessary for multiple recreation experiences that are supported by the RMP.
 - Meet connectivity and destination goals for rural communities.
 - During implementation-level planning, consider resource impacts, other resource decisions, and resource use needs when developing a route system.

- Changes to travel management plans may be requested in writing to the AO and should include details and rationale for making the change. The AO would respond in writing regarding acceptance of the proposal for changes.
- Existing roads and trails will be utilized for access where feasible, rather than creating new roads and trails.

TM-5: EUCAs within the planning area have the following Travel and Transportation Management-related management decisions applied:

- Vegetation and Wildlife Travel Management – same as **TM-6** and **TM-7** below
- All Lands Not Designated as CSUs – same as **TM-8** below
- INHT NTMC TMA – same as **TM-10** below

TM-6: SSS flora and lichen areas (caribou habitat). If monitoring shows observable or quantifiable degradation of dwarf shrub, lichen, or sparse vegetation habitats due to OHV use, then appropriate management actions would be developed and implemented. These actions could include the following:

- OHV use limitations
- Trail relocation
- Trail hardening
- Trail closure

TM-7: To reduce disturbance impacts on priority raptors, motorized ground vehicle use by BLM permittees will be minimized within 1 mile of any known priority raptor nest during the nesting season. Such use is prohibited within one-half mile of nests during the nesting season unless an exception is granted by the AO in coordination with USFWS.

TM-8: For all lands not designated as CSUs:

OHV Designation = Limited

- Summer Casual and Subsistence Access:
 - Summer subsistence overland travel use is limited to ATVs and UTVs (as defined in Appendix E) unless the AO determines that such use is causing or is likely to cause an adverse impact.
 - Summer OHV casual use is limited to existing routes (as shown in the BLM's current route inventory once implementation planning occurs).
- Winter Casual and Subsistence Access:
 - No limitations on winter subsistence and casual use cross-country travel.

Work in coordination with the State of Alaska to designate stream crossing routes; these routes would be designated within the 100-year floodplain.

TM-9: Unalakleet Wild River Corridor:

- OHV Designation = Limited
- Summer Casual and Subsistence Access:

- Casual summer OHV access is limited to existing trails (not including the INHT), primitive roads, and roads (as shown in the BLM’s current route inventory once implementation planning occurs) and includes ATVs only (as defined in Appendix E).
- Subsistence cross-country summer OHV access is allowed and includes ATVs, unless the AO finds that such use is causing or is likely to cause an adverse impact.
- Winter Casual and Subsistence Access:
 - Winter cross-country OHV access allowed for snowmobiles only (as defined in Appendix E).

In cases where the INHT NTMC is co-located with the Unalakleet Wild River, the management prescriptions for the INHT NTMC shall take precedence.

TM-10: INHT NTMC TMA:

- OHV classification = Limited
- Summer Casual and Subsistence Access:
 - Casual and subsistence summer OHV Access is prohibited.
- Winter Casual and Subsistence Access:
 - Winter cross-country casual and subsistence access allowed for snowmobiles only.
 - If winter casual and subsistence snowmobile access results in degradation of the resources or prevents trail management that meets requirements of the National Trails System Act (NTSA), then this would be prohibited in affected areas.

The BLM will develop a Travel Management Plan for the INHT NTMC TMA, including the inventory and designation of routes for motorized, non-motorized, and non-motorized mechanized use.

TM-11: Rohn Site:

- OHV designation = Limited
- Summer Casual and Subsistence Use:
 - The Rohn Site would allow seasonal casual and subsistence OHV use but is limited to existing routes (as shown in BLM current route inventory once implementation planning occurs). Subsistence use is limited if the AO finds that such use is causing or is likely to cause an adverse impact.
- Winter Casual and Subsistence Use:
 - Winter cross-country casual and subsistence access is allowed for snowmobiles only.

The BLM will develop a Travel Management Plan for the Rohn Site, including the inventory and designation of routes for motorized, non-motorized, and non-motorized mechanized use.

See Map A-26.

2.3 Special Designations

2.3.1 National Trails

Goals

1. The nature and purpose of the INHT (BLM 1986b) is to provide the following:
 - A rich diversity of climate, terrain, scenery, wildlife, recreation, and resources largely unchanged since the days of the [gold rush] stampedeers.
 - An extensive, isolated, primitive, historic landscape unmatched in the National Trail System.
 - A setting that demands user durability and skill.
 - A setting in which contemporary users can duplicate the experience and challenge of yesteryear.
 - Per the INHT nature and purpose, as described by Congress in 1978:
 - Conserve today's INHT and adjacent landscape so users can experience the wildland setting and challenges faced by gold rush trail travelers and mushers a century ago.
 - Provide users with opportunities to view, experience, and appreciate examples of historic human use of the resources along the INHT demonstrating how these resources are being managed: (1) in harmony with the environment, (2) in support of the nature and purposes for which the trail was designated, and (3) without detracting from the overall experience of the trail.
 - Maintain the INHT NTMC to provide high-quality winter, trail-based use opportunities. Conserve natural, historic, and cultural resources along the trail.
 - Use of the INHT would minimally affect adjacent natural and cultural environments and harmonize with the management objectives of land and resource uses which are, or may be, occurring on the lands through which the trail passes.
 - Preserve and protect the historical remains and historical settings of INHTs and associated historic sites for public use and enjoyment.
2. Provide opportunities for users to meet subsistence needs and outdoor recreation outcomes and promote the preservation of public access and enjoyment of the open air, outdoor areas, and historic resources of the nation, in a manner that supports the nature and purpose of the Congressionally designated trails.
3. The proposed INHT NTMC was determined with the goal of harmonizing with and complementing any established multiple use plans for the areas where it is located. In selecting the NTSA ROWs and the NTMC, full consideration shall be given to minimizing any potential adverse impacts upon adjacent landowners and users or their operations.

Objectives

1. Inventory, maintain, and enhance the significant qualities of high-potential INHT segments and sites as defined in the NTSA.
2. Avoid adverse effects to intact INHT segments, their settings, and associated sites and interference with the resources associated with the nature and purpose of the trail.

3. Protect historic viewshed, trail traces, roadhouses, landmarks, artifacts, and other remains associated with the INHT to enhance historical research and public use and enjoyment.
4. Provide for no net loss of protected national trail resources on BLM-managed public lands.
5. Manage the landscape (viewshed) associated with the INHT so that visitors continue to get a sense of how this landscape was viewed and how it influenced historic users of the trail (i.e., maintain integrity of location, setting, feeling, and association as described in National Register Bulletin 15 (NPS 1990).
6. Work with adjacent landowners to maintain the continuity of the trail across all land ownership as identified in the INHT Comprehensive Management Plan (BLM 1986b).
7. Manage the Rohn Site as part of the INHT NTMC for specific uses, to support trail-history-related events, and affected stakeholders.
8. Manage the INHT NTMC (and the Iditarod-Anvik INHT Connecting/Side Trail on BLM lands) as an SRMA to achieve the outcomes-focused recreation objectives (Appendix I).
9. Manage the INHT to increase awareness, understanding, and foster a sense of stewardship for the INHT, which safeguards historic trail-associated cultural and natural resources.
10. Ensure visitors are not exposed to unhealthy or unsafe human-created conditions (defined by a repeat incident in the same year, of the same type, in the same location, due to the same cause).
11. Fulfill the NTSA, BLM Manual 6250–National Scenic and Historic Trail Administration (Public), BLM Manual 6280–Management of National Scenic and Historic Trails and Trails Under Study or Recommended as Suitable for Congressional Designation (Public), National Register Bulletin 15 (NPS 1990), the INHT Comprehensive Management Plan (BLM 1986b), and others, as applicable.
12. Manage conflict between recreation participants and: (1) other resource and/or resource uses, sufficient to enable the achievement of identified land use plan goals, objectives, and actions; (2) private land owners sufficient to curb illegal trespass and property damage; and (3) other recreation participants sufficient to maintain a diversity of recreation activity participation.

Decisions

NT-1: Establish the INHT NTMC within the planning area, composed of three geographically distinct areas. The purpose of the NTMC is to conserve the resources, qualities, values, associated settings, and the primary uses that support the nature and purpose of the INHT. The areas identified as the INHT NTMC are further referenced below.

- **Farewell Burn** – located south of Nikolai, Alaska
- **Kaltag Portage** – located between Unalakleet and Kaltag, Alaska
- **Rohn** – located southeast of Nikolai

NT-2: Approve and manage SRPs according to the standard permitting process at the implementation level.

NT-3: Designate the INHT as a TMA for route designation during a travel management planning process. See Section 2.2.7 for travel management decisions for the INHT TMA.

NT-4: Mineral actions in the INHT NTMC will be managed with the following prescriptions:

- In accordance with 43 CFR 3400.2, coal leases shall not be issued on federal lands within the National System of Trails (see BLM Manual 6280 Section 4.2(E)(6)(i)).
- New audible and atmospheric effects shall exceed current levels in the NTMC. Proposals that introduce new, or higher than current level, audible (noise) and atmospheric (e.g., smoke, dust) effects within the NTMC will be authorized only if they do not cause more than short-term, minimal impacts to the INHT, significant INHT-related historical or recreational sites, or INHT-related recreational activities (acceptable increases in sound levels in the short term would be 6 decibels and long term up to 3 decibels; smoke and dust would be limited to 50 percent opacity in the short term and 20 percent in the long term).

NT-5: If the INHT is located within 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: at the time of any future conveyance to the State of Alaska or ANCSA corporation, a reservation will be made for the INHT under the NTSA and Section 906(I) of the ANILCA.

NT-6: While providing for ANILCA access provisions, the travel management classification for the INHT NTMC will be Limited. Travel management actions for the INHT NTMC (which corresponds to the INHT TMA) are included in Section 2.2.7 for transportation management.

NT-7: If winter casual and subsistence OHV use results in degradation of the resources or prevents trail management that meets requirements of the NTSA, then this may be prohibited in affected areas.

NT-8: Within the planning area, the BLM holds an NTSA reservation to the federal government for some INHT segments on blocks of land conveyed to the State of Alaska under the Alaska Statehood Act. These segments of trail will not be managed as part of the NTMC and are not be subject to the prescriptions described in this section. Similarly, these segments will not be managed as TMAs and/or for surface travel management, nor will they be managed as an SRMA. The BLM's authority is strictly limited to the NTSA and language found on the land patent documents agreed to by the State at the time of conveyance.

NT-9: Fire management within the NTMC will be as follows:

- The Rohn Site and BLM public shelter cabins along the INHT NTMC will be prioritized for both fuels reduction and fire protection.
- NRHP-eligible historic roadhouses along the INHT NTMC will be prioritized for fuels treatment and fire protection.
- Fire management in the INHT NTMC will be implemented without ATVs, dozers, or other surface-disturbing vehicles unless specifically authorized by the AO.

NT-10: Do not allow structures that require air safety lighting in the NTMC. Require hooded surface lighting.

NT-11: BLM-managed public lands along the INHT will be managed per the following VRM Class:

- Manage a 15-mile offset from the INHT as VRM Class II: 1,922,881 acres
- Manage a 15-mile offset of the INHT connecting/side trails, with the exception of the Iditarod-Anvik Connecting Trail, as VRM Class III: 1,663,440 acres

NT-12: Subject to valid existing rights, recommended new FLPMA withdrawals for the existing INHT treadway in the following locations:

- Farewell Burn unit (1,000-foot-wide buffer centered on the treadway plus the Bear Creek Cabin and access trail): 2,732 acres
- Kaltag Portage unit (1,000-foot-wide buffer centered on the treadway, but outside of Unalakleet Wild River withdrawal): 1,897 acres
- Rohn Site (entire parcel): 363 acres

The determination on whether the FLPMA withdrawal would include salable, leasable, and/or locatable minerals would be determined when the withdrawal is recommended.

NT-13: Subject to valid existing rights the INHT NTMC would be:

- Open to locatable mineral exploration and development,
- NSO for leasable development, and
- Open for salable mineral development.

The INHT NTMC would be closed to seismic exploration.

Leasable, salable plans of development may be authorized if it is determined by the AO that impacts, both direct and cumulative, associated with the action would not substantially interfere with the nature and purpose of the INHT.

NT-14: While providing for ANILCA access provisions, realty actions may be authorized within the INHT NTMC if it is determined by the AO that:

- They meet VRM class objectives (Section 2.1.11) for the disturbance area, as viewed from Key Observation Points from the INHT impacted by the disturbance; and
- Impacts (direct, indirect, and cumulative) associated with the action would be not substantially interfere with the nature and purpose of the INHT.

Other realty actions and surface-disturbing activities within the INHT NTMC may be authorized if it is determined by the AO that the following could be achieved:

- They are outside of the viewshed of the INHT.
- They meet the VRM class objective for the disturbance area, as viewed from portions of the INHT NTMC impacted by the disturbance.

NT-15: The INHT NTMC is open to commercial woodland harvest.

NT-16: The INHT NTMC is closed to reindeer grazing.

See Map A-27.

2.3.2 Wild and Scenic Rivers

Goals

1. WSRs within the planning area will be managed in such a manner so as to maintain—throughout the life of the plan—all ORVs identified during the BSWI WSR eligibility inventory (BLM 2018b).
2. Apply relevant BMPs identified for other resources in the designated WSR corridor.

Objectives

1. Maintain and enhance the ORVs throughout the life of the plan by authorizing uses that are compatible with the river values.
2. Maintain the aesthetic values of the WSR through bank stabilization and effective management of human activities.
3. Within 5 years of the signing of the ROD, the BLM should have established resource indicators and thresholds to determine impacts and modify use levels as necessary to maintain ORVs for designated WSRs.

Decisions

WSR-1: The congressionally designated Unalakleet Wild River (46,953 acres) is the only area that will be managed by decisions in this section.

WSR-2: Eligible WSR segments are determined not suitable as potential additions to the National WSR System.

WSR-3: WSR Corridor Management. Acquisition efforts will be focused on lands which meet acquisition standards from willing sellers within the designated WSR corridor.

WSR-4: WSR Corridor Management. Lands within one-half mile of the bank of any Alaskan river designated a wild river have been withdrawn, subject to valid existing rights, from all forms of appropriation under the mining laws and the mineral leasing laws by Section 606 of ANILCA (BLM 1983). This existing ANILCA withdrawal will be maintained.

WSR-5: WSR Corridor Management. Prohibit harvesting of house logs on BLM-managed land within the WSR corridors except for subsistence use as provided for under ANILCA Title 8.

WSR-6: WSR Corridor Management. Any campsite facilities associated with commercial activities must have the ability to be completely moved every 14 days without vegetation cutting or soil disturbance. Campsites and other semi-permanent developments that would be used for research, educational, subsistence, or other non-commercial endeavors may be issued according to the normal permitting process at the implementation level.

WSR-7: WSR Corridor Management. Limit stays for non-permitted/non-cabin casual use to 14 consecutive days within a 28-day period. After a camp has been occupied for 14 days, the camp must be moved at least 2 miles to start a new 14-day period.

WSR-8: WSR Corridor Management. Authorize commercial, competitive, organized group use, and commercial filming, in conjunction with an SRP or a land use permit, according to the normal permitting process at the implementation level.

WSR-9: WSR Corridor Management. SRP activities that do not maintain or enhance the ORVs will not be permitted in the WSR corridor.

WSR-10: Travel-Related. Maintain semi-primitive motorized recreation opportunities, experiences, and outcomes.

WSR-11: Travel-Related. Motorized transportation for all river users is limited to outboard motorboats, airplanes, and snowmobiles on BLM-managed public lands and waters in the designated WSR corridor per the existing management plan (BLM 1983).

WSR-12: Travel-Related. To minimize noise intrusion, inboard jet boats, airboats, and hovercraft are not allowed on BLM-managed public lands and waters in the designated WSR corridors.

WSR-13: Travel-Related. Prohibit public helicopter landing within the WSR corridors except by permit. The BLM would make a determination regarding these permits as informed by appropriate site-specific NEPA analysis and disclosure.

WSR-14: Travel-Related. Helicopters are allowed to land in WSR corridors as part of official duties conducted by State and federal employees, with approval of the BLM AO.

WSR-15: Travel-Related. Any BLM-permitted activities involving aircraft will be requested to maintain 2,000 feet above ground level above special areas designated in Federal Aviation Administration (FAA) Advisory Circular AC 91-36D, Visual Flight Rules near Noise-Sensitive Areas. The BLM may modify these requests as needed based on updated FAA recommendations or requests. Administrative and permitted landing access or landing, taking off, or operating in an emergency situation are exempt from these requests.

WSR-16: Travel-Related. The landing and takeoff of fixed winged aircraft with minimal clearing of rocks, downed logs, and brush is allowed to provide for travel to and from communities and home sites or for administrative or permitted purposes. No construction or formal improvement of aircraft landing areas is allowed.

WSR-17: Travel-Related. Provide adequate and feasible access to private inholdings, as mandated by ANILCA.

WSR-18: Travel Management Decisions:

- OHV Designation = Limited
- Summer Casual and Subsistence Access:
 - Casual summer OHV access is limited to existing trails (not including the INHT), primitive roads, and roads (as shown in the BLM's current route inventory once implementation planning occurs) and include ATVs only (as defined in Appendix E).
 - Subsistence cross-country summer OHV access is allowed and includes ATVs—unless the AO finds that such use is causing or is likely to cause an adverse impact.

- Winter Casual and Subsistence Access:
 - Winter cross-country OHV access allowed for snowmobiles only (as defined in Appendix E).

In cases where the INHT NTMC is co-located with the Unalakleet Wild River, the management prescriptions for the INHT NTMC shall take precedence.

WSR-19: Manage the Unalakleet Wild River Corridor as VRM Class I: 46,953 acres

WSR-20: Manage as VRM Class II a 5-mile offset from the centerline of the Unalakleet River: 284,592 acres

WSR-21: Manage as VRM Class III a 5-mile to 15-mile offset from the centerline of the Unalakleet River (including below the designated WSR corridor): 694,539 acres

WSR-22: Improvements within Unalakleet Wild River Corridor. Allow construction or formal improvement of campsites, interpretive sites or toilets only as needed to maintain those facilities for use. These improvements shall be completed with the minimal tools and materials necessary and shall be compatible with the primitive setting and ORVs for which the WSR was designated and consistent with VRM Class II. This includes clearing of vegetation near shelter cabins.

WSR-23: Within WSR corridor, takeoff and landing of casual use of unmanned aerial systems (UAS) is not allowed, except as approved by the BLM AO. Use of UASs for administrative or permitted use would be analyzed per DOI Operation Procedures Memorandum 11.

See Map A-28.

2.4 Social and Economic Features

2.4.1 Hazardous Materials and Health and Human Safety

Goals

1. Require that the use of hazardous materials within the planning area is managed in accordance with all applicable federal, State, and local laws and regulations.

Objectives

1. Prevent new spills from occurring and prevent the creation of new contaminated sites.
2. Successfully clean up all contamination that occurs, or is discovered from past land use, to a degree that meets regulatory requirements and BLM future land uses.

Decisions

HazMat-1: Hazardous Materials. All BLM-permitted activities, at a minimum, must comply with all applicable federal and State laws, regulations, and policy regarding use of hazardous materials.

HazMat-2: Hazardous Materials. Prevent spills of hazardous materials by requiring:

- Spill prevention control and countermeasures plan when applicable (1,320 gallons cumulative capacity for storage of oil, potential impact to Waters of the U.S., or causing unnecessary or undue degradation, as required by federal law)
- Secondary containment of all hazardous materials in 55-gallon drum capacity and greater

HazMat-3: Hazardous Materials. For BLM-permitted activities, no storage of hazardous materials allowed within 100 feet of OHWM of surface water (rivers, streams, lakes, ponds, springs) and wetlands.

HazMat-4: Hazardous Materials. For BLM-permitted activities, no hazardous materials storage within 0.25 mile of centerline of designated WSRs.

HazMat-5: Hazardous Materials. For BLM-permitted activities, no storage of hazardous materials allowed within the 100-year floodplain of rivers or streams or within 100 feet of the OHWM of lentic features, such as lakes, ponds, springs, and wetlands; or on frozen bodies of water. Exceptions could be allowed at the discretion of the AO when approved spill prevention practices are implemented to prevent accidental release of the hazardous materials. The storage area for any hazardous materials must be approved by the AO.

HazMat-6: Hazardous Materials. All BLM-permitted activities using hazardous materials must comply with BMPs and SOPs (Appendix B).

HazMat-7: Hazardous Materials. Compliance inspections/monitoring required for all BLM-permitted activities prior to permit closeout, unless waived by the BLM AO.

HazMat-8: Hazardous Materials. All withdrawals relinquished to the BLM are required to complete a Phase 1 Environmental Site Assessment documenting Recognized Environmental Conditions. If environmental liabilities are identified, the holder of the withdrawal would be required to complete cleanup prior to relinquishment. An updated Phase I Environmental Site Assessment would be completed to document cleanup and that there are no known environmental liabilities remaining on the property.

HazMat-9: Hazardous Materials. The BLM will prioritize cleanup of hazardous materials sites with eminent or existing discharge of hazardous materials based on the following criteria:

- Threatens public health and safety
- Adversely impacts drinking water sources
- Occurs within or adjacent to HVWs
- Would affect Essential Fish Habitat
- Would affect cultural resources
- Are on lands priority selected for conveyance to ANCSA Native corporations or the State of Alaska

HazMat-10: Hazardous Materials. BLM permittees are responsible for cleanup of any hazardous materials resulting from their activities.

HazMat-11: Health and Human Safety. The BLM State Aviation Plan must comply with FAA requirements for low-level flights, flights over sensitive resource areas, and use of UAS.

HazMat-12: Health and Human Safety. All motorized vehicles on BLM-managed public lands, with the exception of off-road vehicles used in an areas with 3 inches or more of snow, must have U.S. Forest Service-approved spark arrestors (see 43 CFR 8343.1(c)).

HazMat-13: Health and Human Safety. All locatable and salable operations would have to comply with Mine Safety Health Administration requirements for noise and safety.

HazMat-14: Management direction is determined on a case-by-case basis.

3. *Public Involvement*

The BLM will continue to work with existing partners, to cultivate new partnerships, and to seek the views of the public. It will use such techniques as news releases and website postings to ask for participation and to inform the public of new and ongoing management actions and site-specific planning. The public is encouraged to contact the BLM (Anchorage Field Office 4700 BLM Road, Anchorage, Alaska 99507) and request that their names be placed in the AFO mailing list, along with their specific area of interest (e.g., wildlife, cultural resources, or socioeconomics) for plan implementation. The public may also make this request by calling (907) 267-1246.

The BLM will also continue to coordinate, both formally and informally, with the numerous federal and State agencies, Native American tribes, local agencies, and officials interested and involved in the management of public lands in the AFO.

4. *Management Plan Implementation*

The BLM will develop an implementation plan to identify actions to achieve the desired outcomes of the Approved RMP. The implementation plan will assist BLM managers and staff to prepare budget requests and to schedule work priorities. The BLM will prepare supplementary rules to provide full authority to BLM Law Enforcement to enforce management decisions made in the Approved RMP pursuant to the BLM's authority under 43 CFR 8365.1-6.

The BLM will issue implementation-level decisions to fully implement the RMP. During implementation of the RMP, the BLM will prepare additional documentation for site-specific actions to comply with NEPA. This can vary from a simple statement of conformance with the ROD and adequacy of existing NEPA analysis to more complex environmental assessments or EISs that analyze several alternatives.

5. *RMP Amendment, Evaluation, Maintenance, and Monitoring*

5.1 RMP Evaluation

In accordance with the BLM's Land Use Planning Handbook (BLM 2005a), the BLM will periodically evaluate an approved RMP to determine whether the land use plan decisions and NEPA analysis are still valid and whether the plan is being implemented effectively. Land use plan evaluations determine if:

- The decisions remain relevant to current issues,
- Decisions are effective in achieving or making progress toward achieving the desired outcomes specified in the RMP,
- Any decisions need revision or amendment,

- Any decisions need to be dropped from further consideration, and
- Any new decisions are needed.

In making these determinations, the BLM's evaluation will consider whether mitigation measures such as those described in the Approved RMP are satisfactory, whether there are significant changes in the related plans of other entities, or whether there is significant new information. In addition to periodic evaluations, special evaluations may also be required to review unexpected management actions or significant changes in the related plans of Native American tribes, other federal agencies, and State and local governments, or to evaluate legislation or litigation that has the potential to trigger an amendment or revision to the RMP. Evaluations may identify resource needs, as well as the means for correcting deficiencies and addressing issues through plan maintenance, amendments, or revisions. Evaluations should also identify where new and emerging issues and other values have surfaced.

5.2 RMP Amendment

RMP decisions are subsequently changed through either a plan amendment or another RMP revision. The process for conducting plan amendments is basically the same as the land use planning process used in developing or revising RMPs. The primary difference is that circumstances may allow for completing a plan amendment through the environmental assessment process, rather than through an EIS. Plan amendments (43 CFR 1610.5-5) change one or more of the terms, conditions, or decisions of an approved land use plan. Plan amendments are most often prompted by the need to consider a proposal or action that does not conform to the plan; implement new or revised policy that changes land use plan decisions; respond to new, intensified, or changed uses on BLM land; and consider significant new information from resource assessments, monitoring, or scientific studies that change land use plan decisions.

The BSWI Approved RMP may be changed, should conditions warrant, as described above. A plan amendment may become necessary if major changes are needed or to consider a proposal or action that is not in conformance with the plan. The results of monitoring, evaluation of new data, policy changes, or changing public needs might also provide the impetus for an amendment. Generally, an amendment is issue-specific. If several areas of the plan become outdated or otherwise obsolete, a plan revision may become necessary. Plan amendments and revisions are accomplished with public input and the appropriate level of environmental analysis.

5.3 RMP Maintenance

Land use plan decisions and supporting information can be maintained to reflect minor changes in data, but maintenance is limited to refining, documenting, or clarifying previously approved decisions. Some examples of maintenance actions include the following:

- Correcting minor data, and typographical, mapping, or tabular data errors, such as updating acreage figures shown throughout the RMP. Acreages are based on GIS data, which are subject to constant refinement.
- Refining baseline information as a result of new inventory data (e.g., refining the known habitat of special status species or adjusting the boundary of a fire management unit based on updated fire regime condition class inventory, fire occurrence, monitoring data, and/or demographic changes).

Plan maintenance will be documented in supporting records. Plan maintenance does not require formal public involvement, interagency coordination, or the environmental analysis required for making new land use plan decisions.

The BLM expects that new information gathered from field inventories and assessments, monitoring, research, other agency studies, and other sources will update baseline data and/or support new management techniques, required SOPs, and scientific principles. Where monitoring shows land use plan actions or SOPs are not effective, modifications or adjustments may occur without amendment or revision of the plan as long as assumptions and impacts disclosed in the analysis remain valid and broad-scale goals and objectives are not changed.

5.4 RMP Monitoring

Land use plan decision monitoring is a continuous process occurring over the life of the RMP. The aim is to maintain a dynamic RMP. Monitoring data are collected, examined, and used to draw conclusions about (1) whether planned actions have been implemented in the manner prescribed by the RMP (implementation monitoring), (2) whether RMP allowable use and management action decisions and the resultant implementation actions are effective in achieving program-specific objectives or desired outcomes (effectiveness monitoring), and (3) calculating the cost of delivering a service or product (efficiency monitoring by program elements). Implementation monitoring tracks the completion of land use plan decisions, whereas effectiveness monitoring helps determine whether completion of land use plan decisions achieves anticipated desired outcomes. If implementation of land use plans does not achieve anticipated desired outcomes, adaptive management may be necessary.

The BLM will monitor implementation of the RMP and periodically evaluate the need for revisions or amendments every 5 years at a minimum per the BLM's Land Use Planning Handbook (BLM 2005a). RMP evaluations will also be completed prior to any plan revisions and for major RMP amendments. Revisions to the RMP will be required to comply with FLPMA planning guidelines, as well as the environmental review requirements in NEPA.

The BLM uses conclusions drawn from monitoring to make recommendations on whether to continue current management or to determine what changes need to be made to implementation practices to better achieve RMP goals. Indicators, methods, locations, units of measures, frequency, and action triggers can be established by national policy guidance, in RMPs, or by technical specialists in order to address specific issues.

Based on staffing and funding levels, monitoring is annually prioritized consistent with the goals and objectives of the RMP. The BLM may work in cooperation with local, State, and other federal agencies, or it may use data collected by other agencies and sources when appropriate and available.

5.5 Adaptive Management

The RMP will be implemented using an adaptive management process. The DOI Office of Environmental Policy and Compliance Environmental Statement Memoranda 13-11 defines adaptive management as "... a system of management practices based on clearly identified outcomes, monitoring to determine if management actions are meeting outcomes, and, if not, facilitating management changes that will best ensure that outcomes are met or to re-evaluate the outcomes" (BLM 2018c). Under adaptive management,

decisions, plans, and proposed activities are treated as working hypotheses rather than final solutions to management of resources and uses.

The AFO will implement the adaptive management process for decisions appropriate to be adapted in order to meet resource goals and objectives. Monitoring, reports, documents, and timelines associated with the adaptive management process will be subject to AFO budget and staffing constraints. Climate Change and Adaptive Management Standards are included in Appendix J.

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III. SUPPORTING DOCUMENTS

Appendices

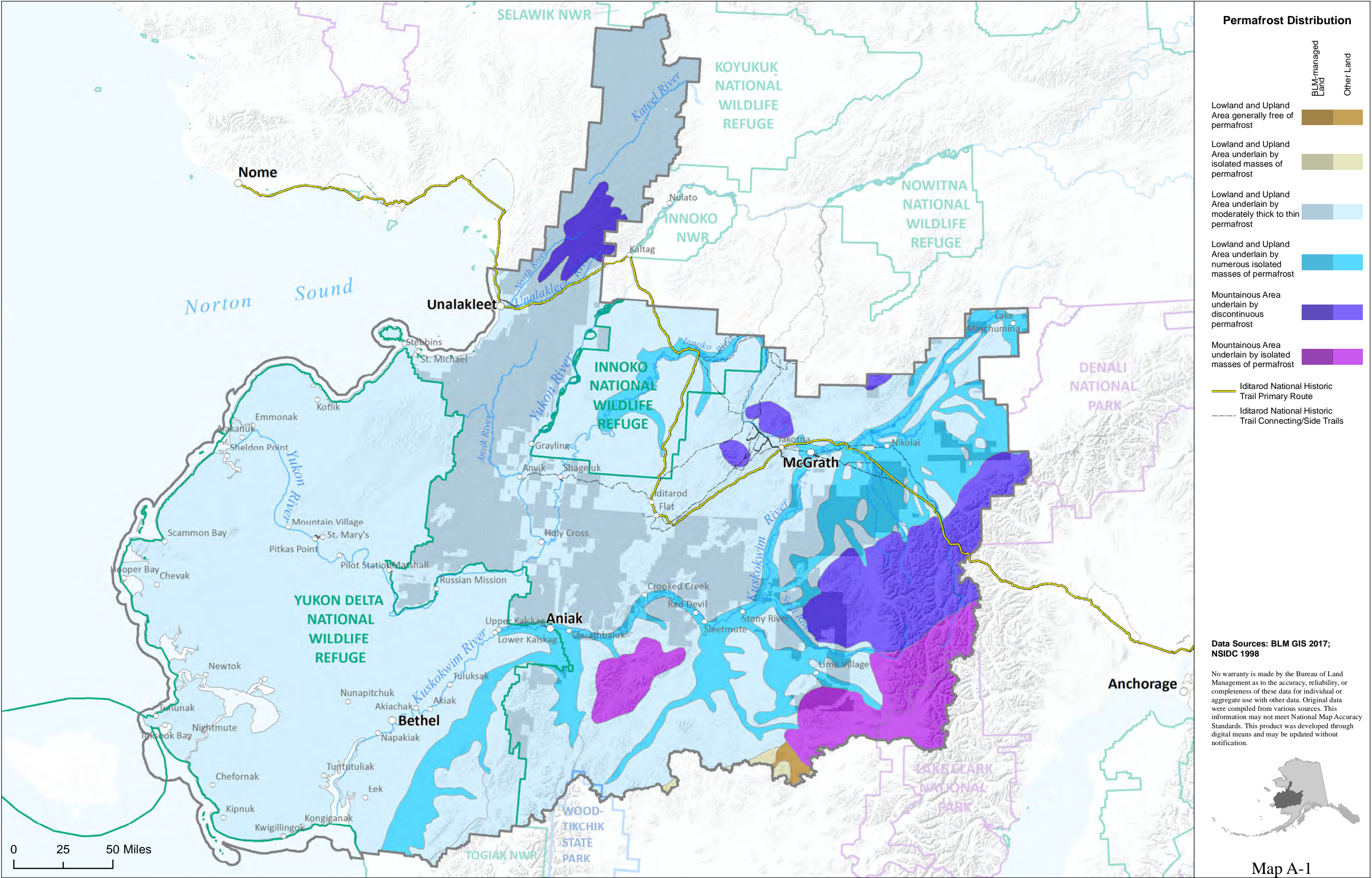
- A Approved RMP Maps
- B Best Management Practices (BMPs) and Standard Operating Procedures (SOPs)
- C Management Regulations, Policy, and Program Guidance
- D Mitigation Standards
- E Glossary
- F Aquatic Resource Value (ARV) Model Information
- G BLM Sensitive Species List
- H Parcels Available for Exchange
- I Recreation Management Areas (RMAs)
- J Climate Change and Adaptive Management

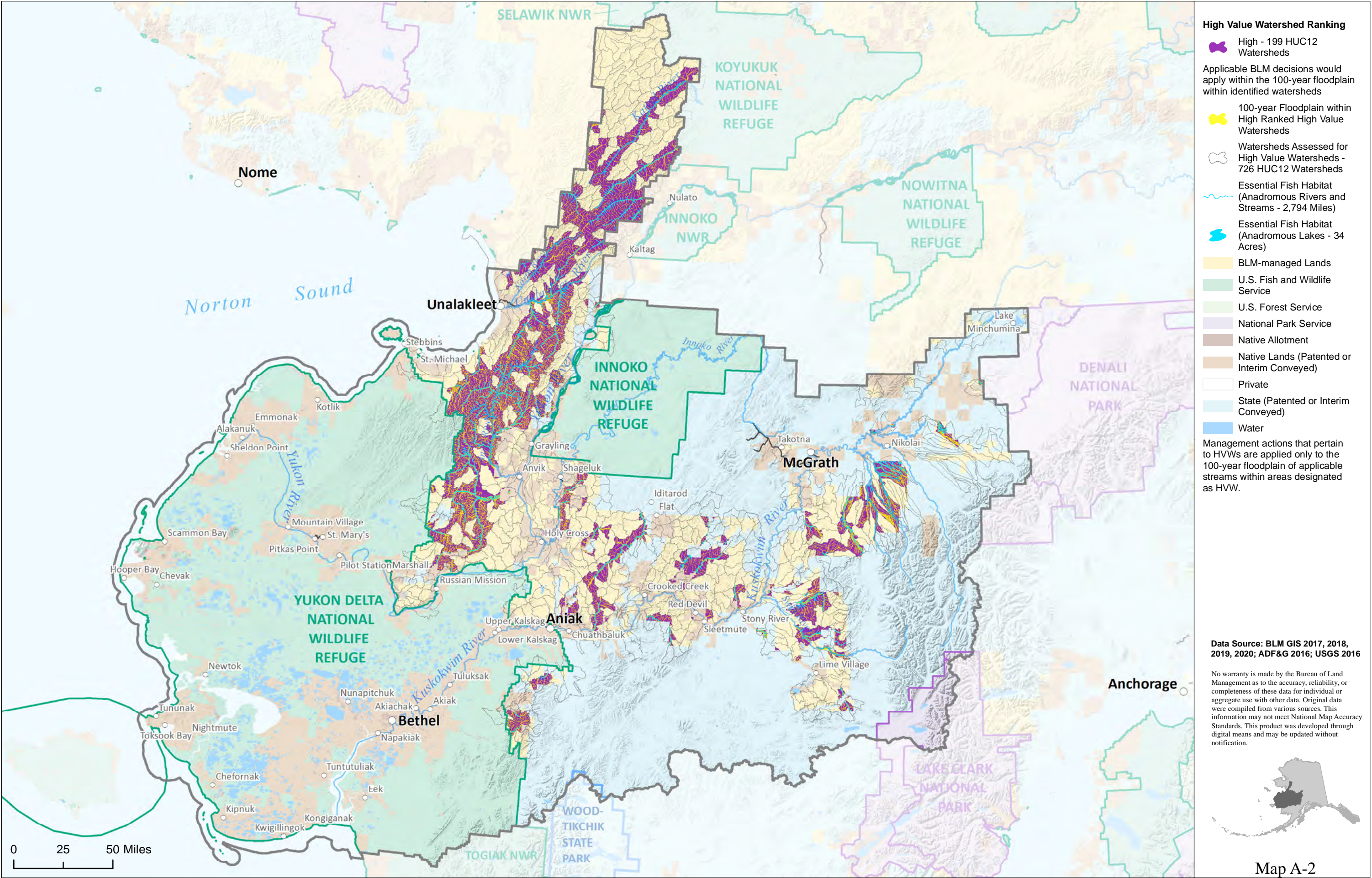
Appendix A: Approved RMP Maps

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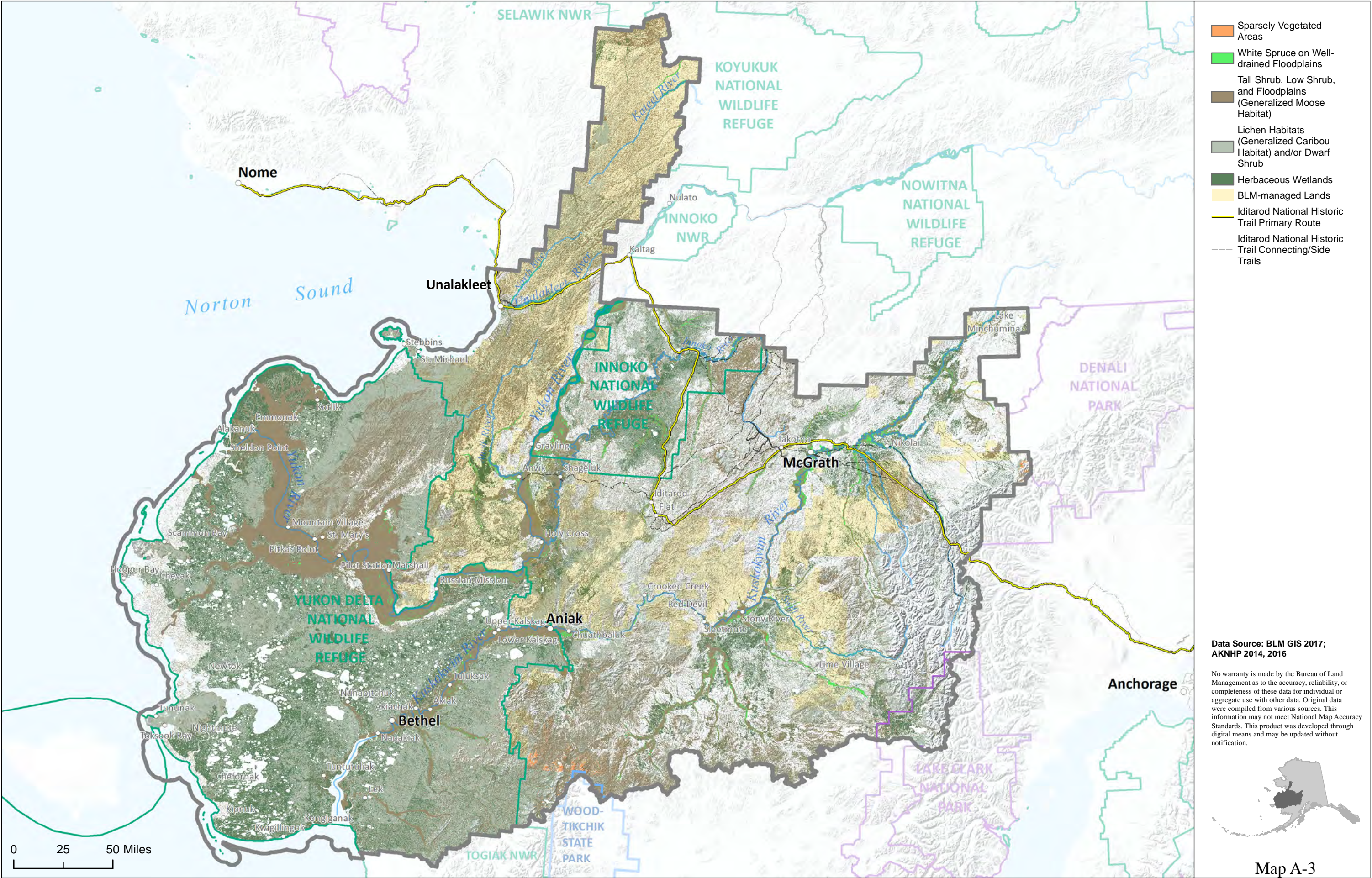
Map A-1: Permafrost Distribution – Planning Area Overview
Map A-2: High-Value Watersheds – Planning Area Overview
Map A-3: Select Land Cover Classes – Planning Area Overview
Map A-4: Landscape Intactness Model – Planning Area Overview
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Map A-8: Caribou Habitat – Planning Area Overview
Map A-9: Dall Sheep, Bison, & Muskox Habitat – Planning Area Overview
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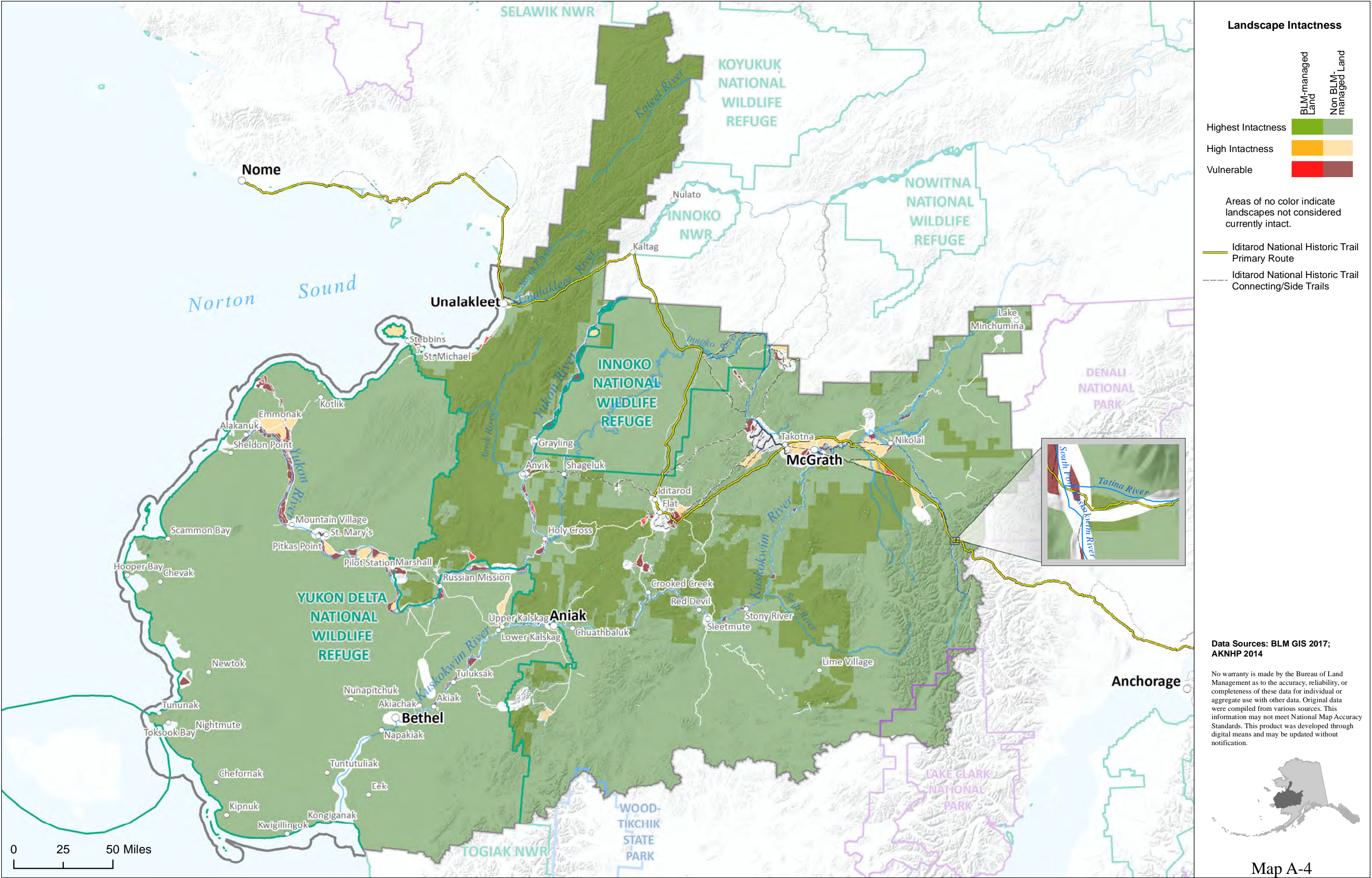
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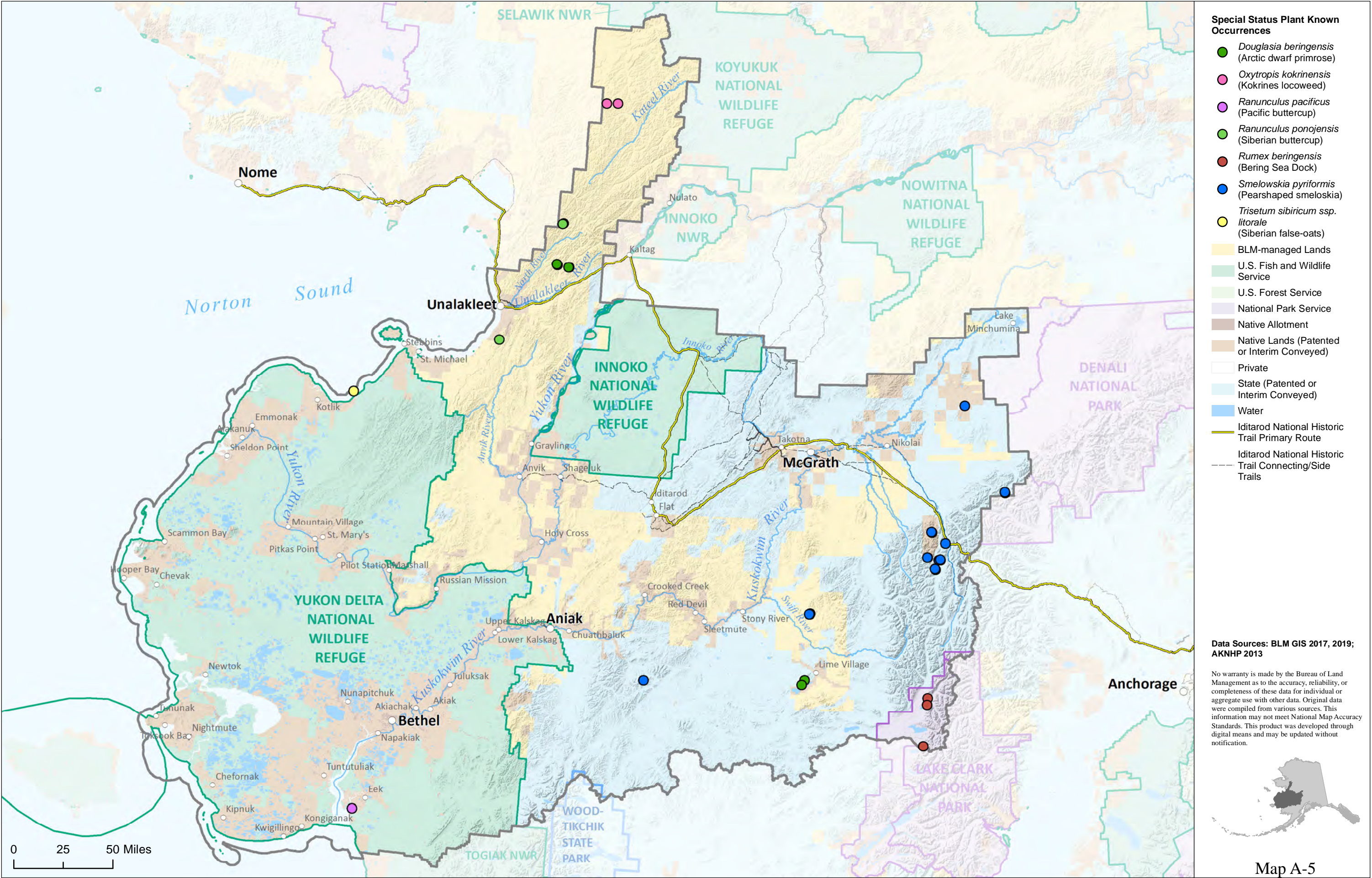


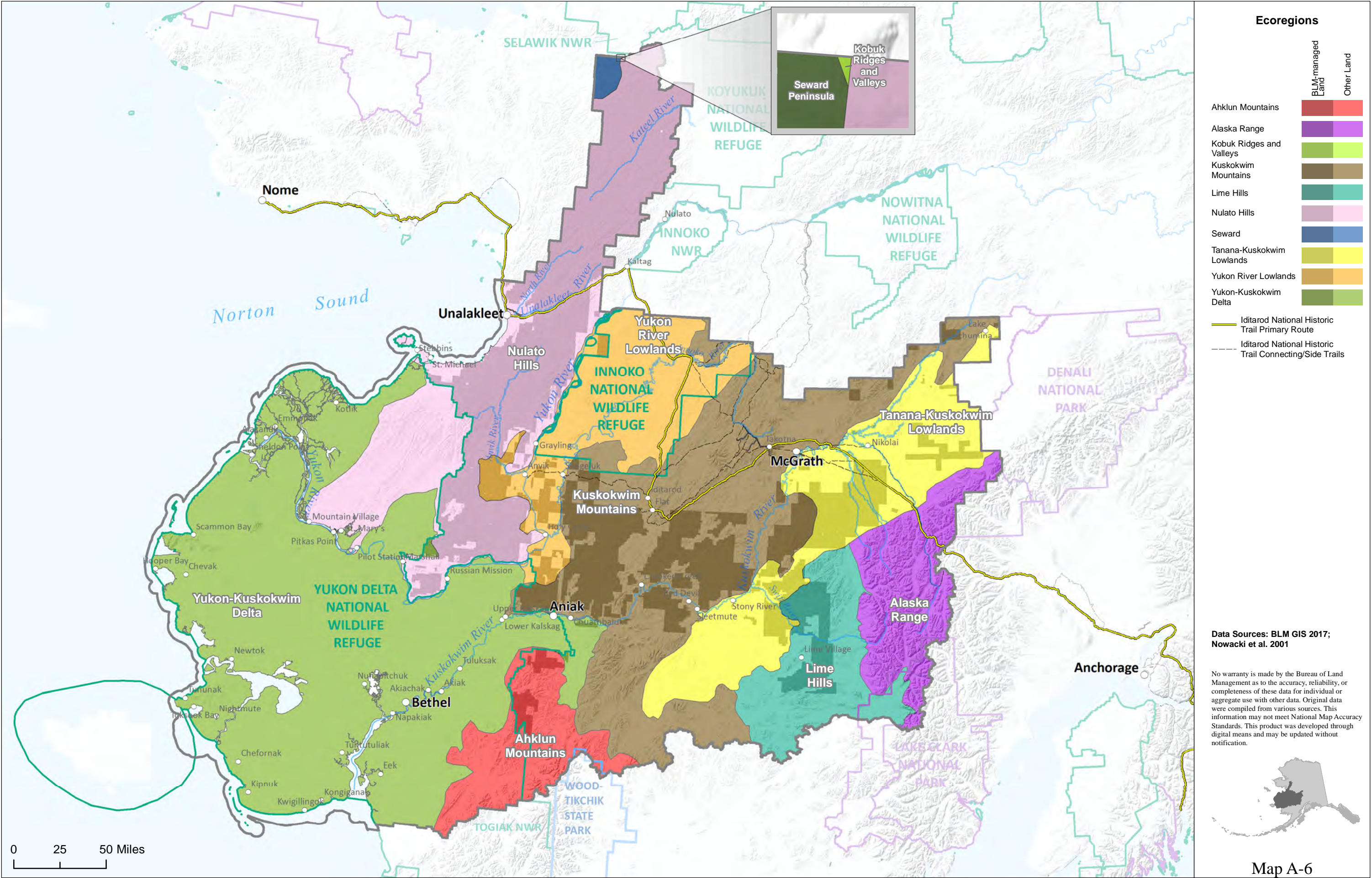


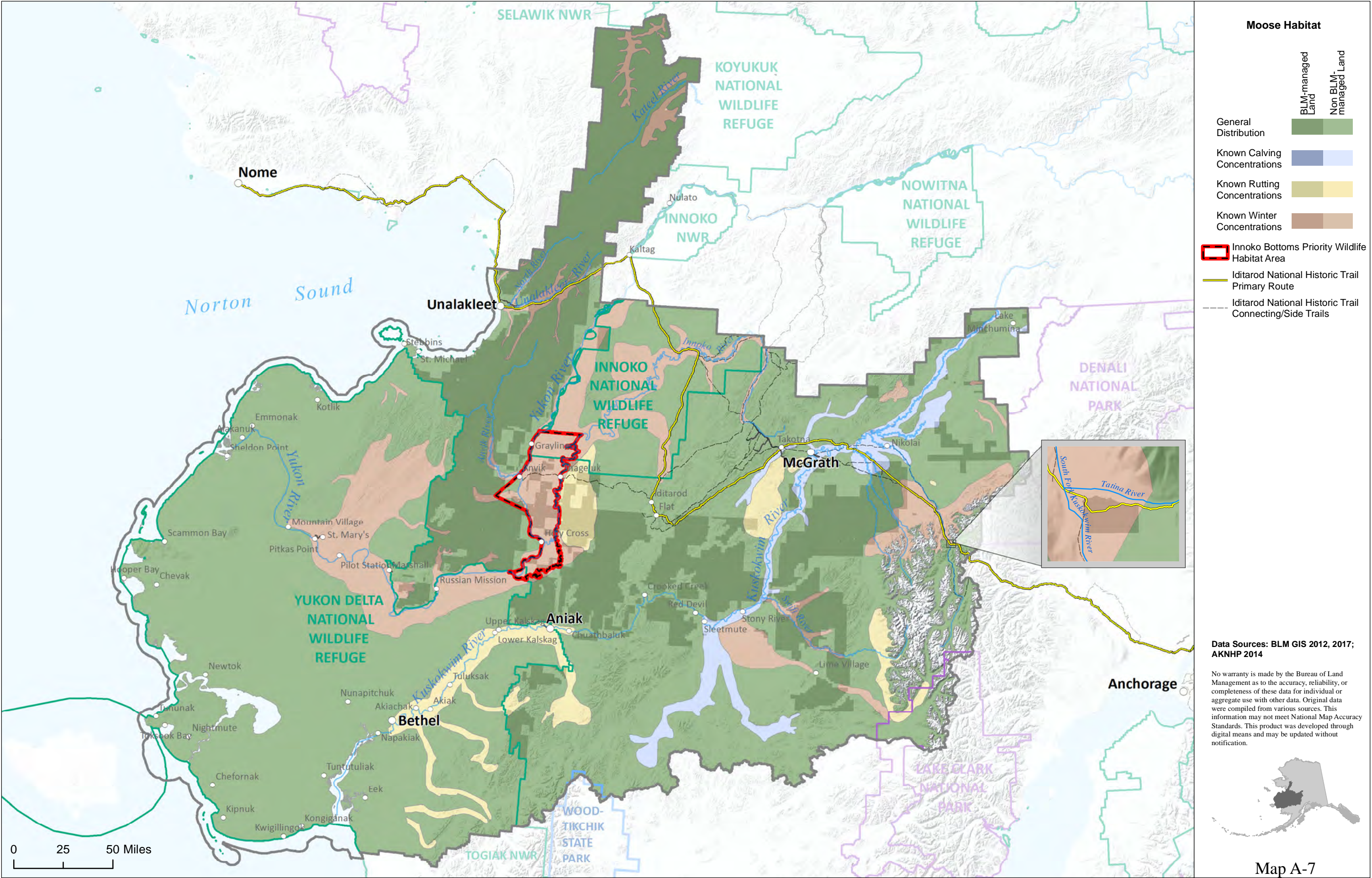
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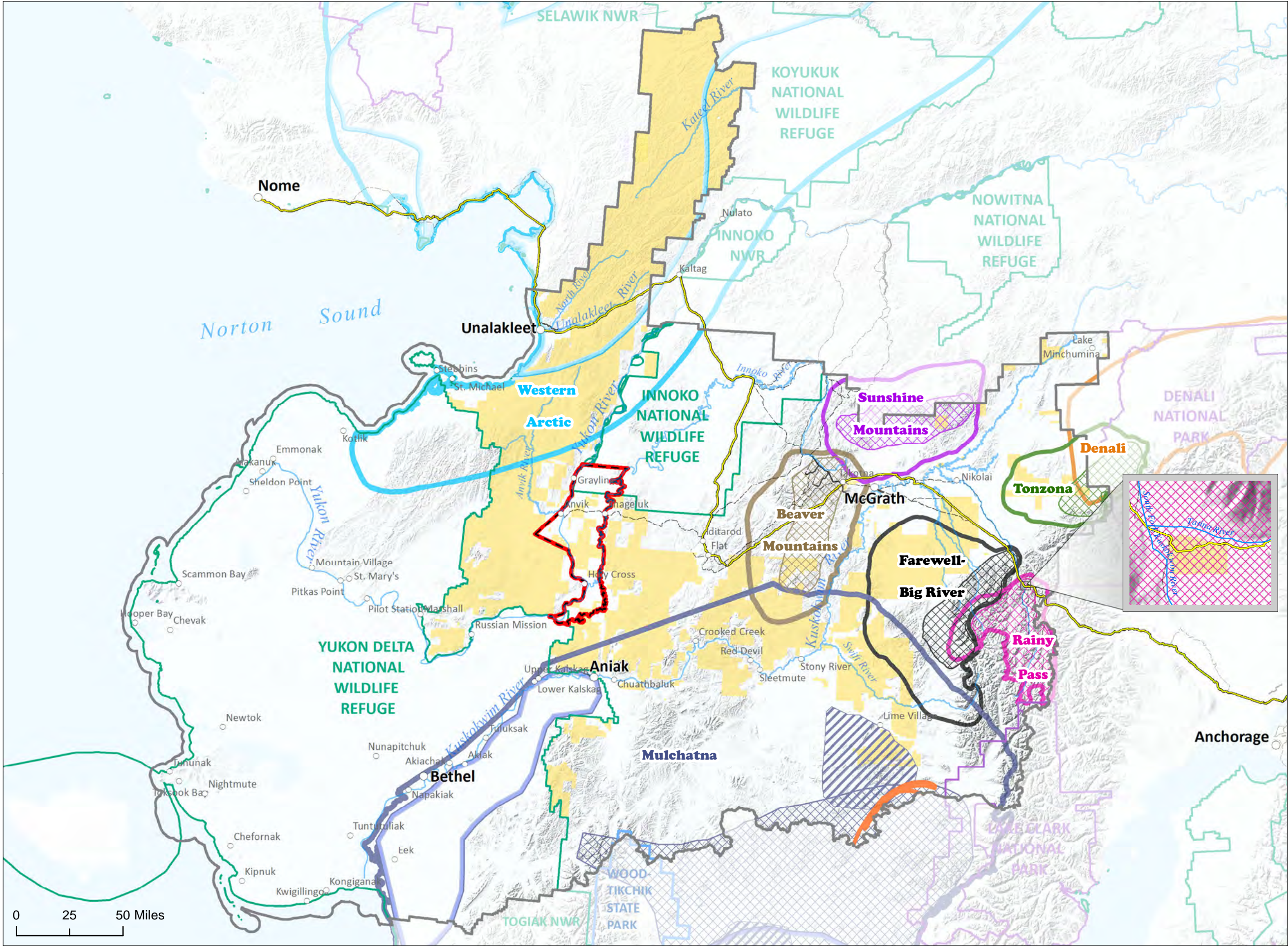




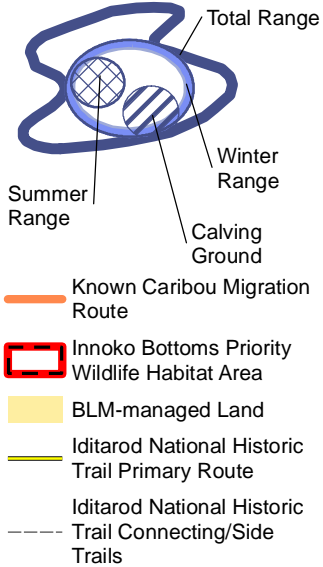








Caribou Herd and Range

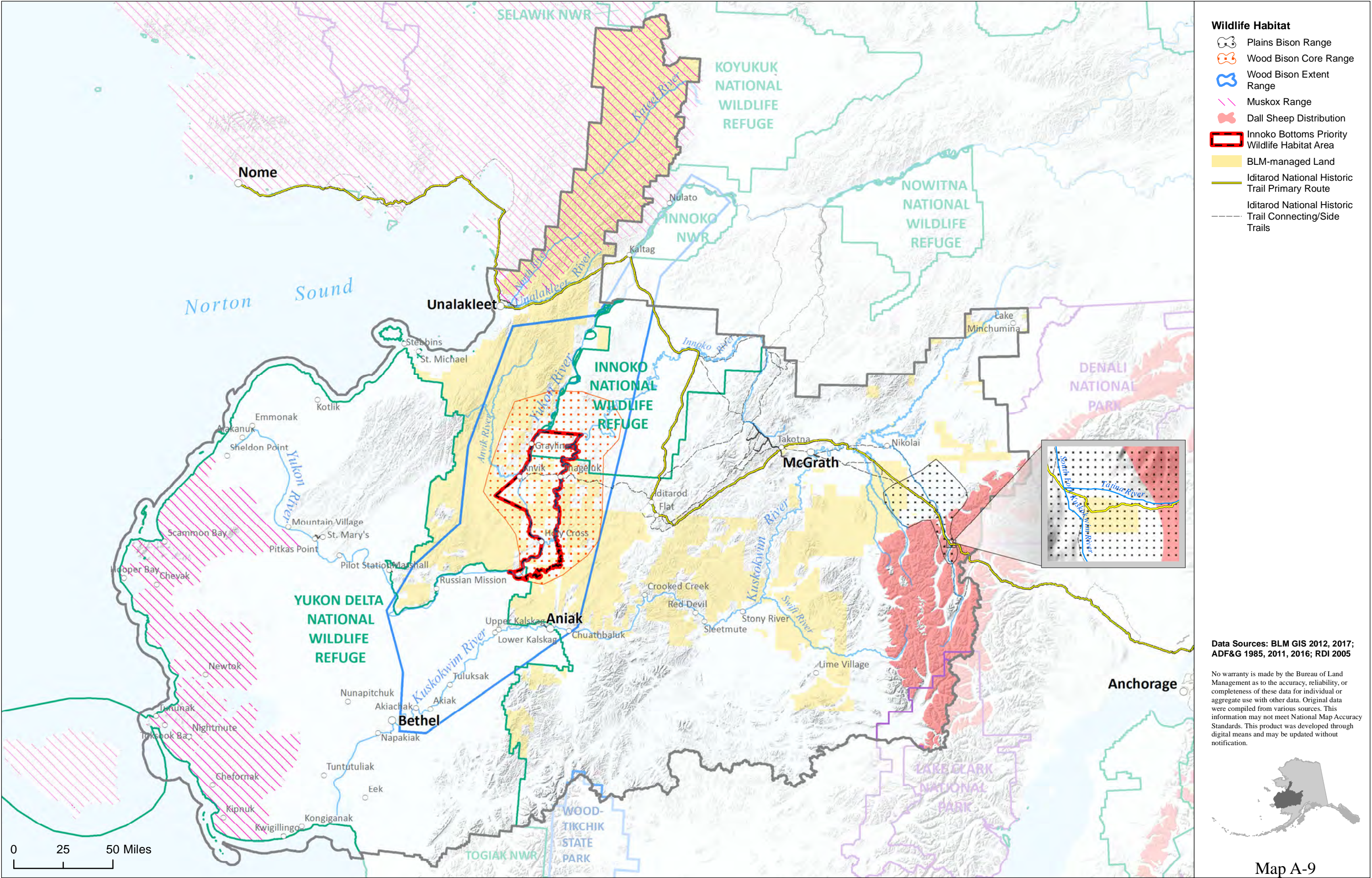


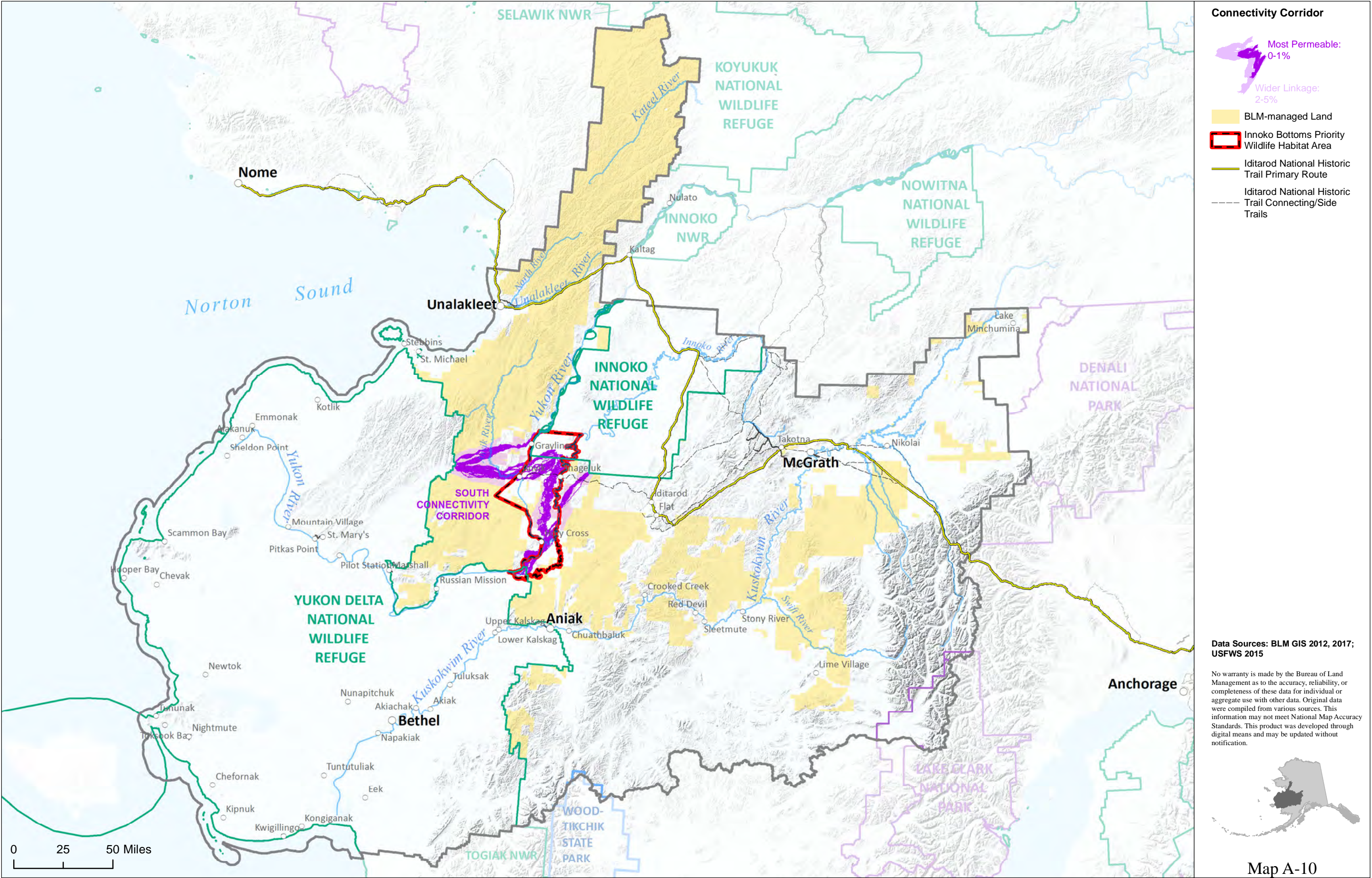
Data Sources: BLM GIS 2012, 2017;
ADF&G 2008; RDI 2005

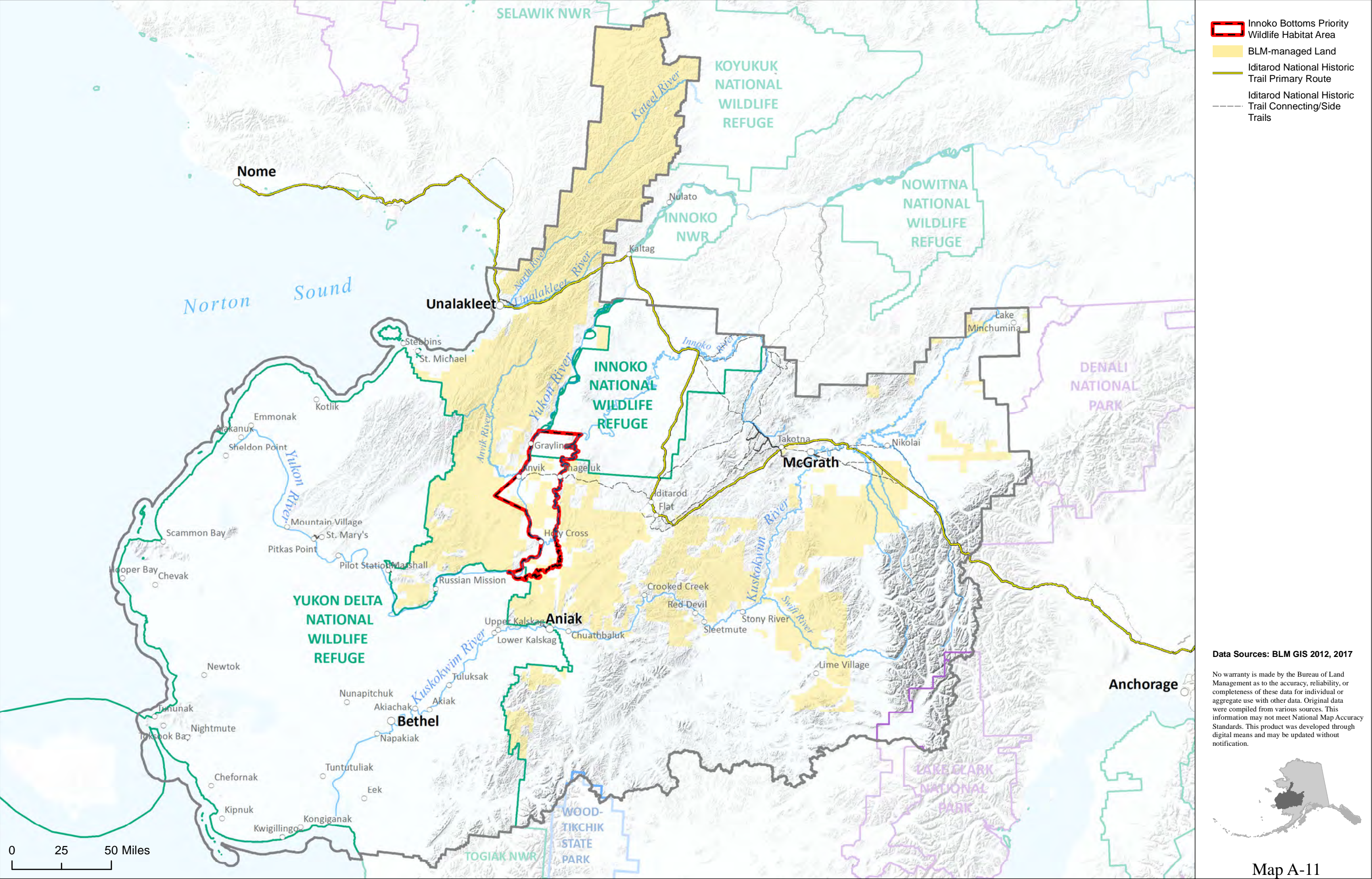
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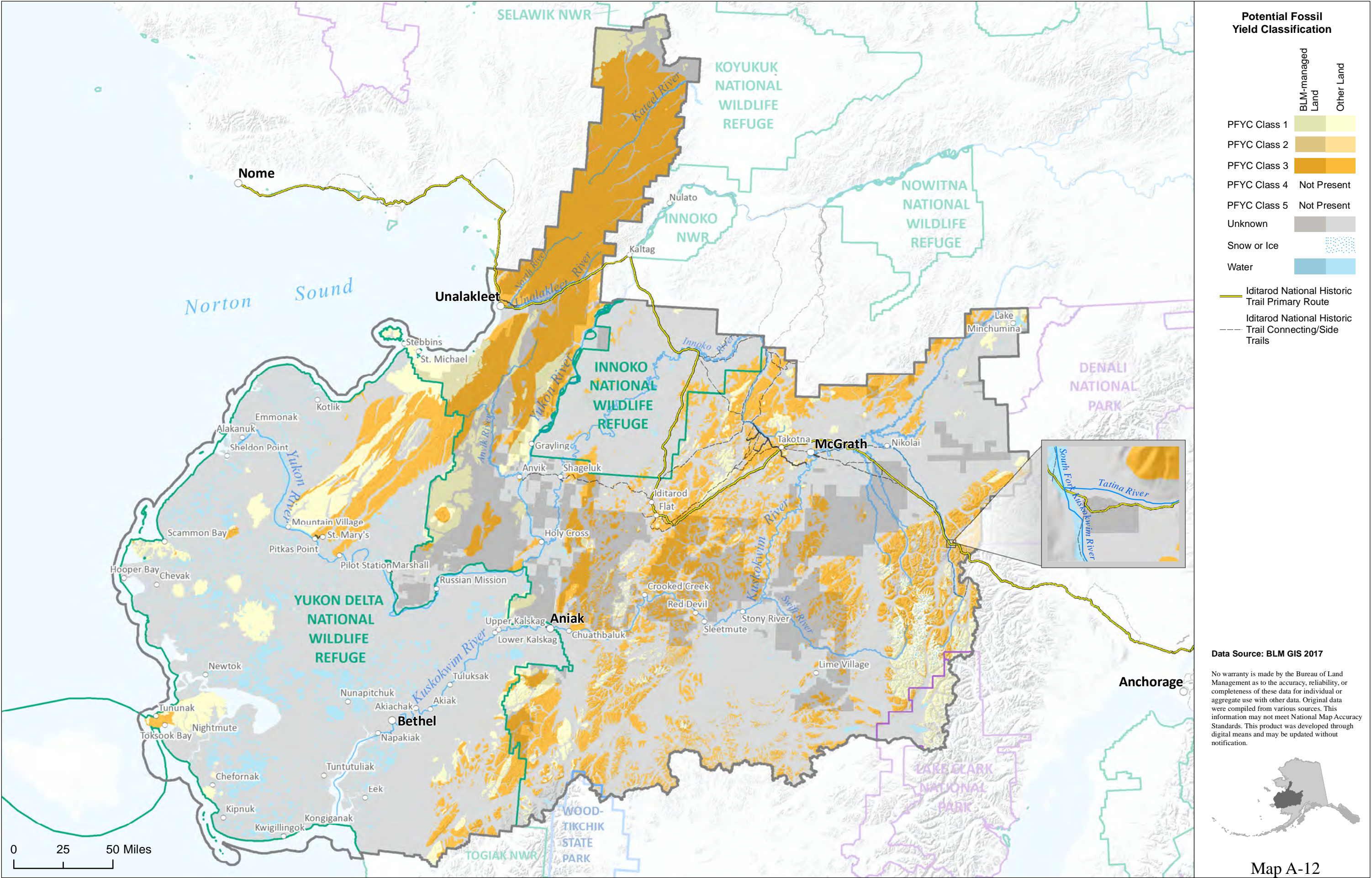


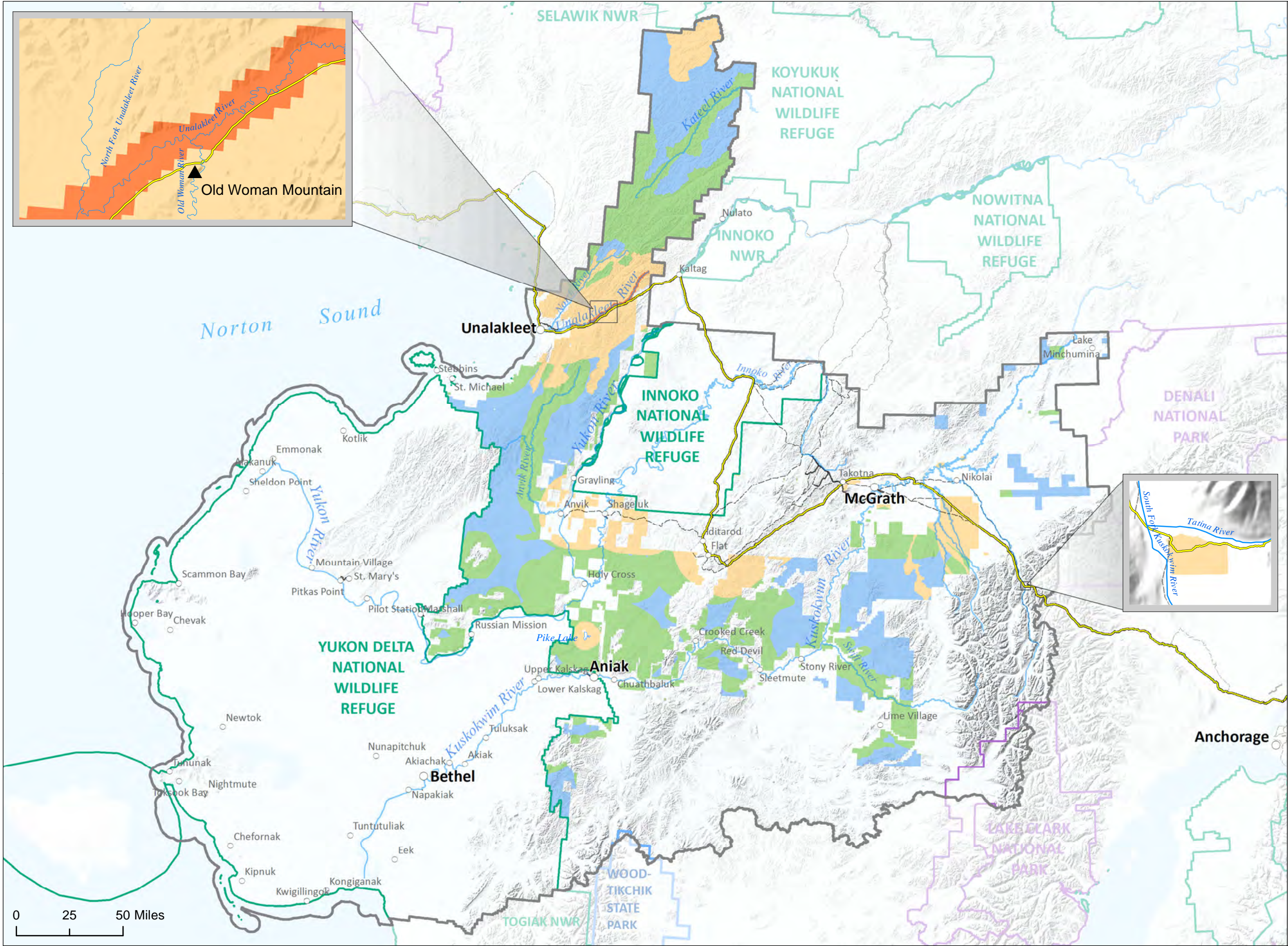
Map A-8











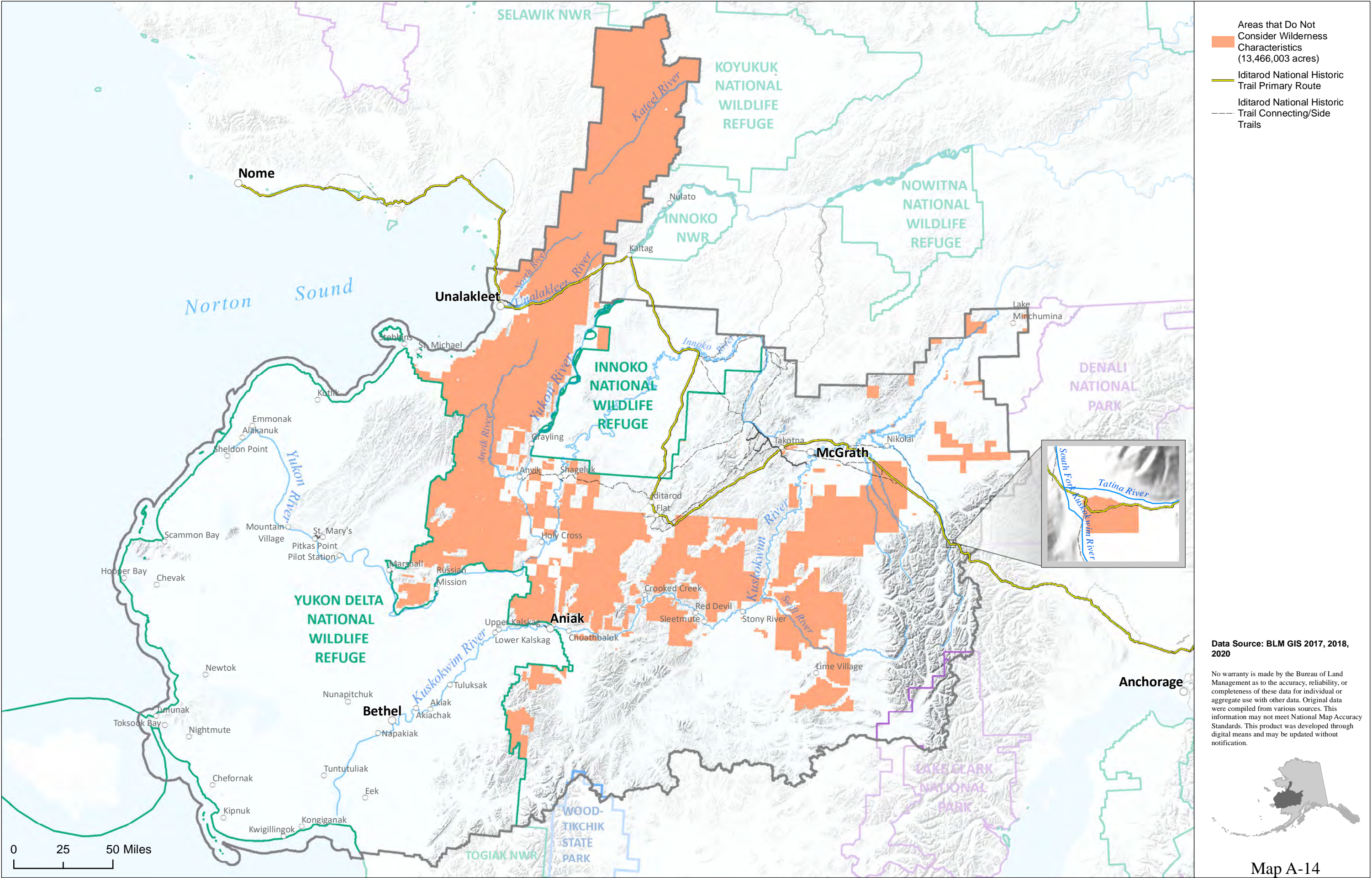
Visual Resource Management Class

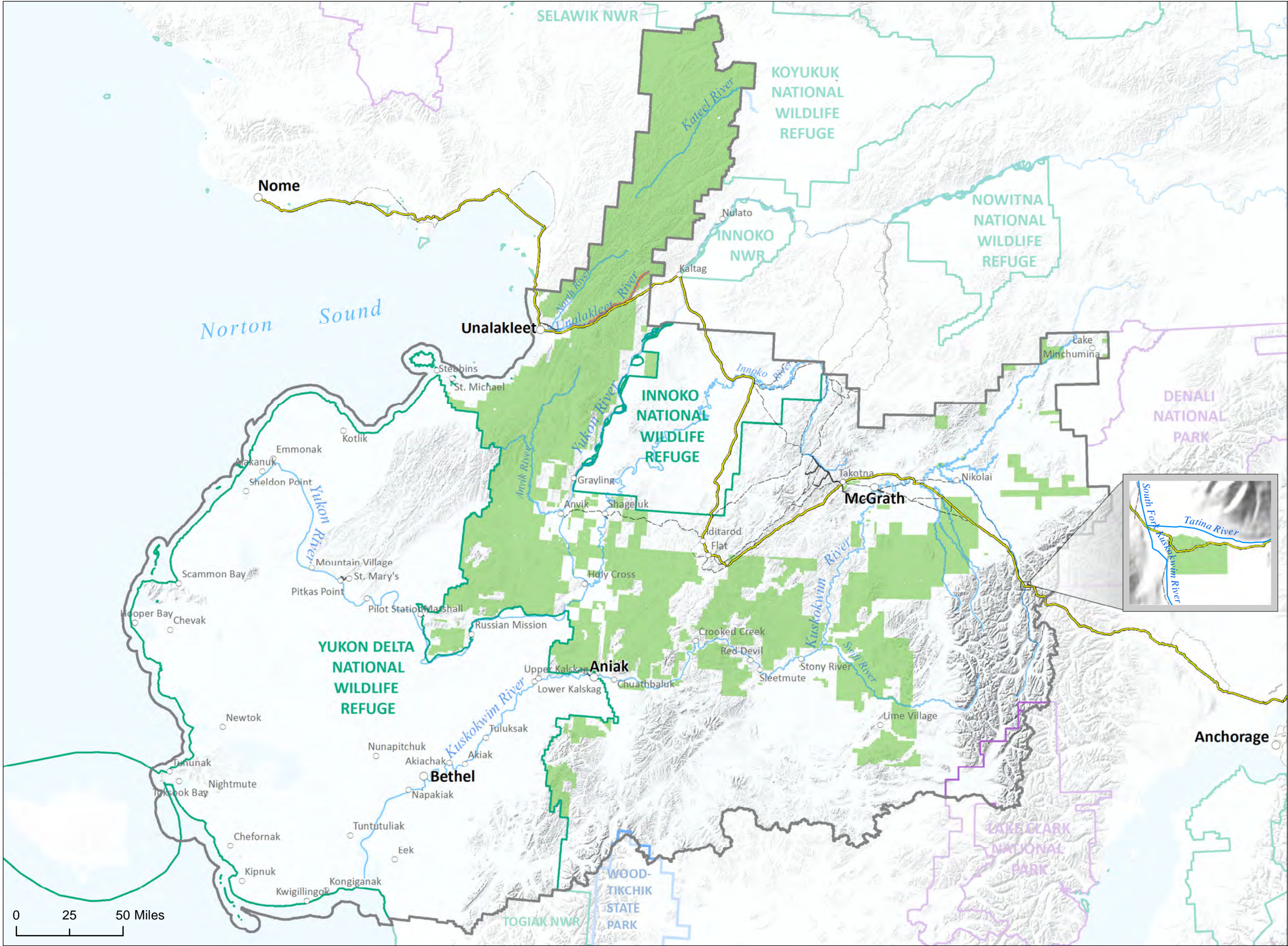
- VRM Class I (46,953 acres)
- VRM Class II (2,645,370 acres)
- VRM Class III (5,809,494 acres)
- VRM Class IV (4,964,076 acres)
- Iditarod National Historic Trail Primary Route
- Iditarod National Historic Trail Connecting/Side Trails

Data Sources: BLM GIS 2017, 2020

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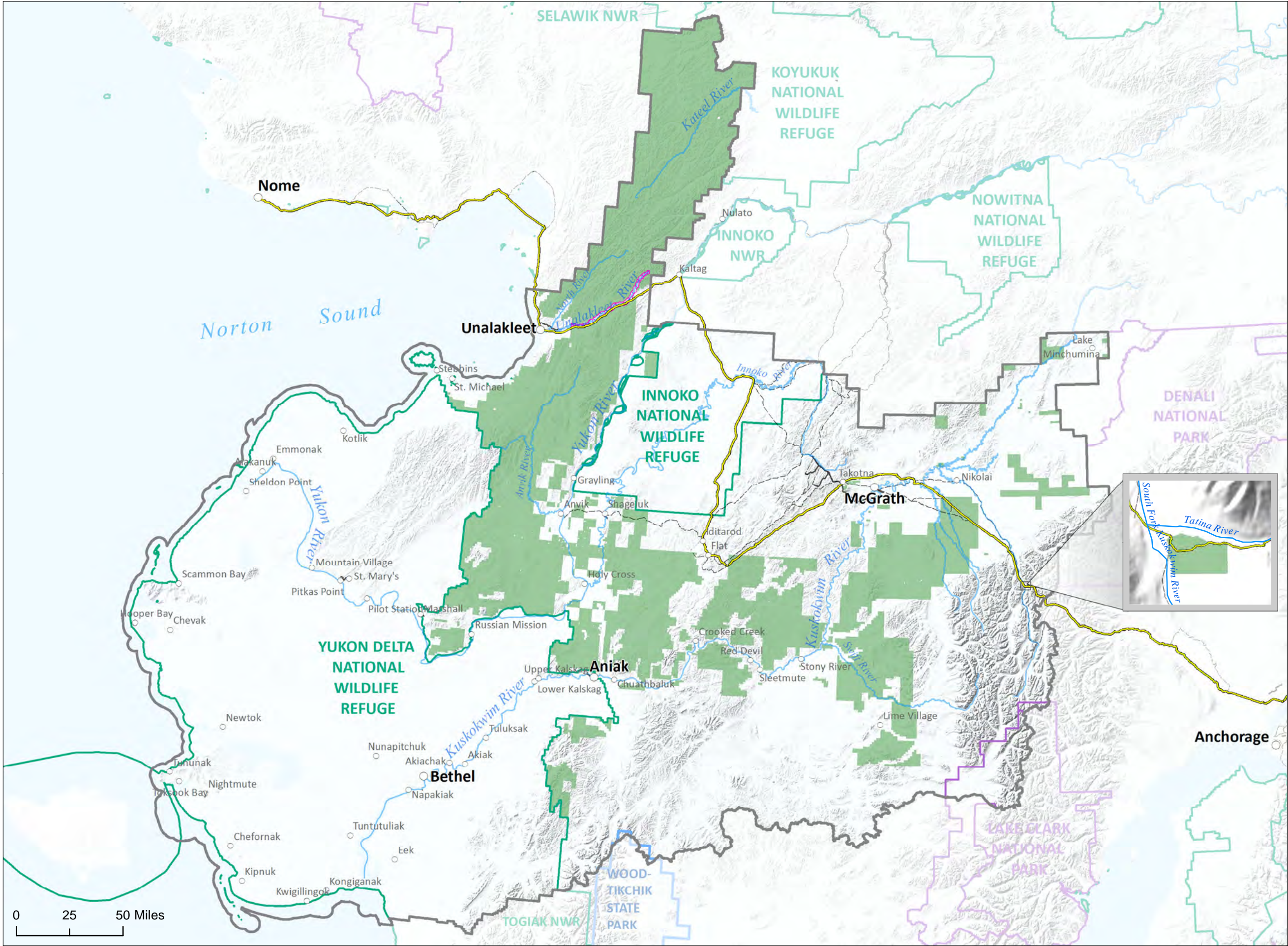
Commercial Woodland Harvest Area

- Open to Permitting for Commercial Woodland Harvest
- Closed to Commercial Woodland Harvest
- Iditarod National Historic Trail Primary Route
- Iditarod National Historic Trail Connecting/Side Trails

Data Sources: BLM GIS 2017, 2020

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.





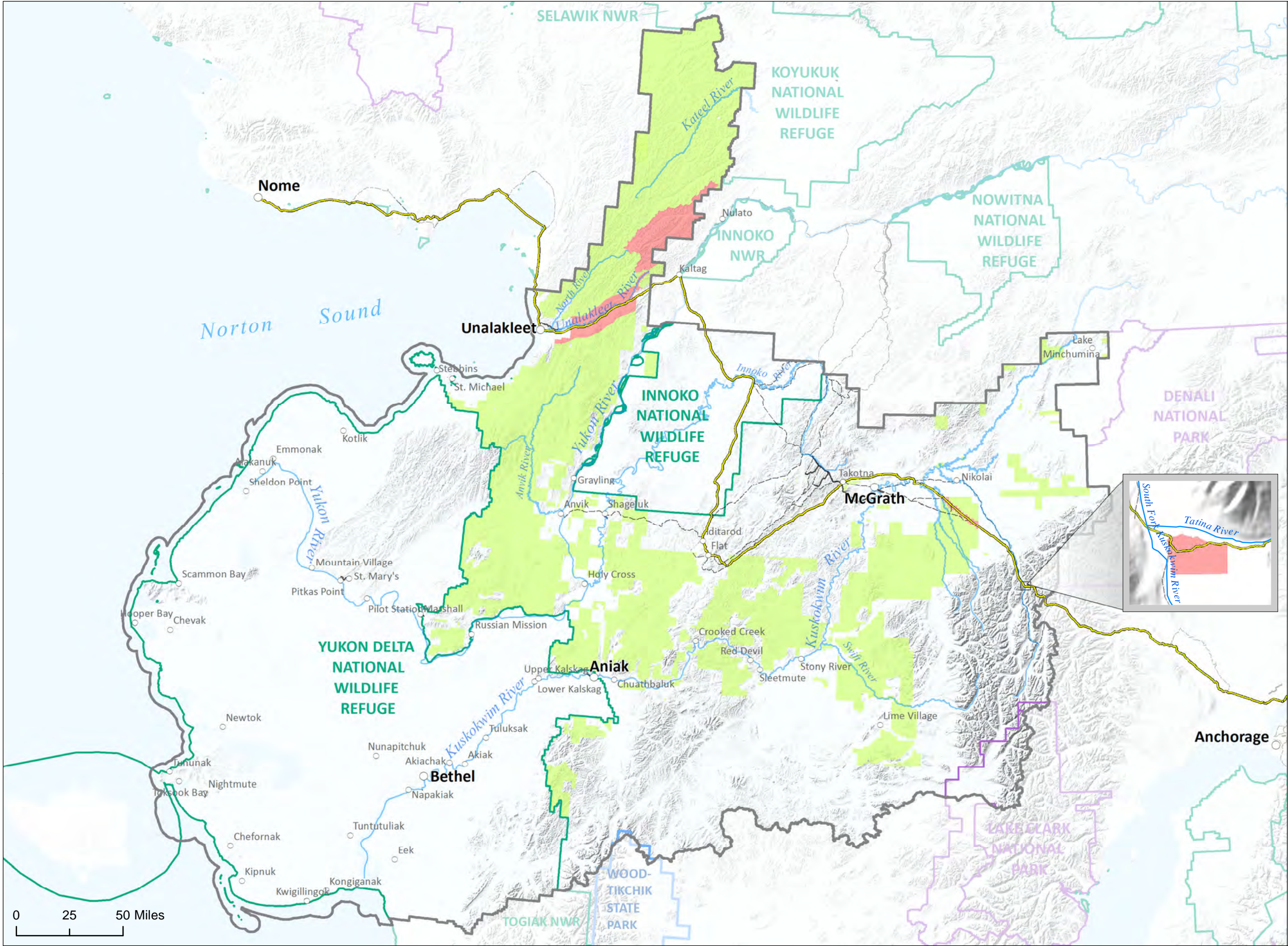
- Non-Subsistence House Log Harvesting Prohibited
- Open to All Subsistence and Personal Use Woodland Harvest
- Iditarod National Historic Trail Primary Route
- Iditarod National Historic Trail Connecting/Side Trails



Data Source: BLM GIS 2017, 2020

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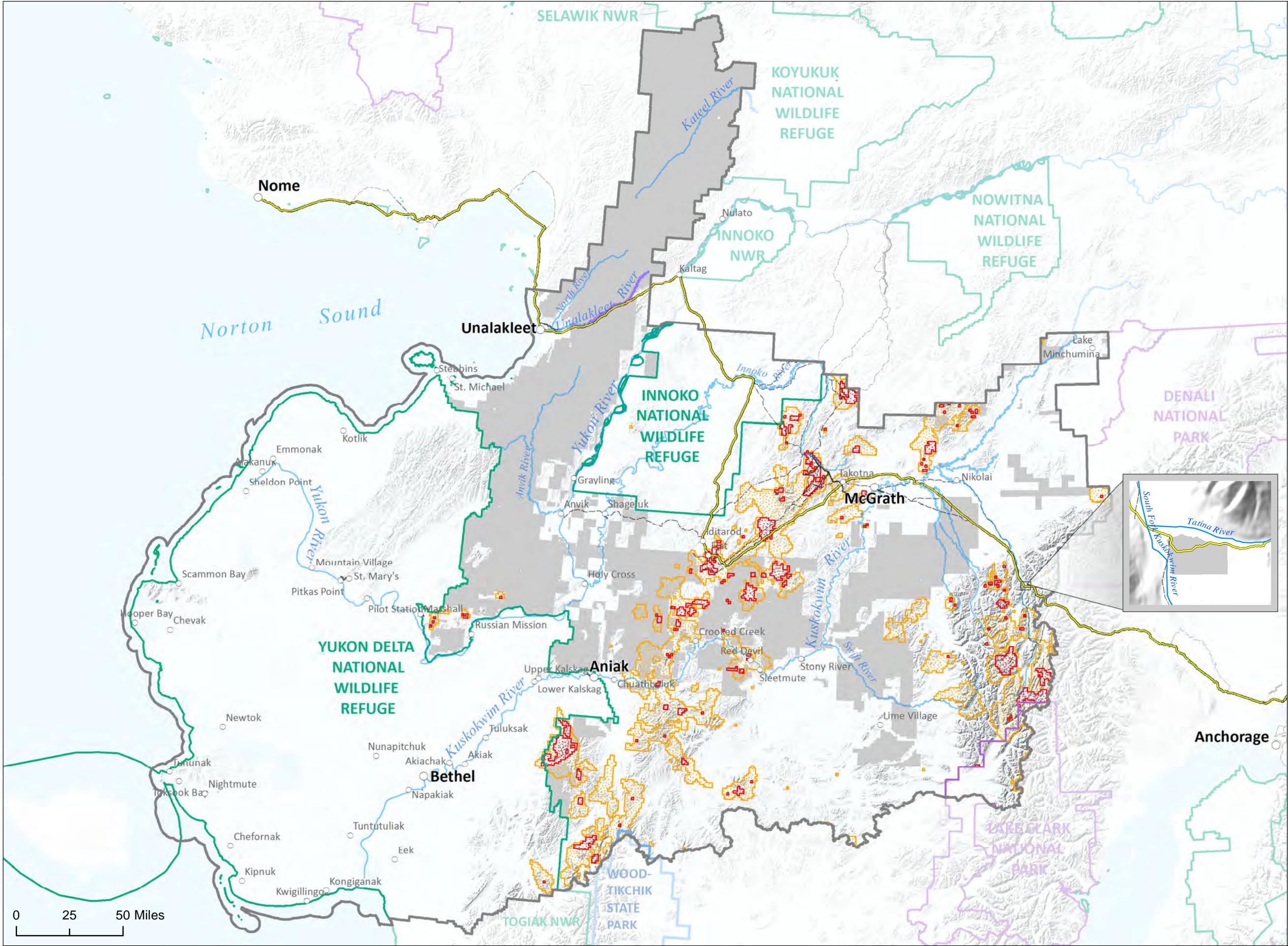


- Grazing**
- Closed to Grazing
 - Open to Grazing
 - Iditarod National Historic Trail Primary Route
 - Iditarod National Historic Trail Connecting/Side Trails

Data Source: BLM GIS 2017, 2020

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.





Locatable Mineral Decisions

- Open to Locatable Mineral Entry
- Withdrawn from Locatable Mineral Entry

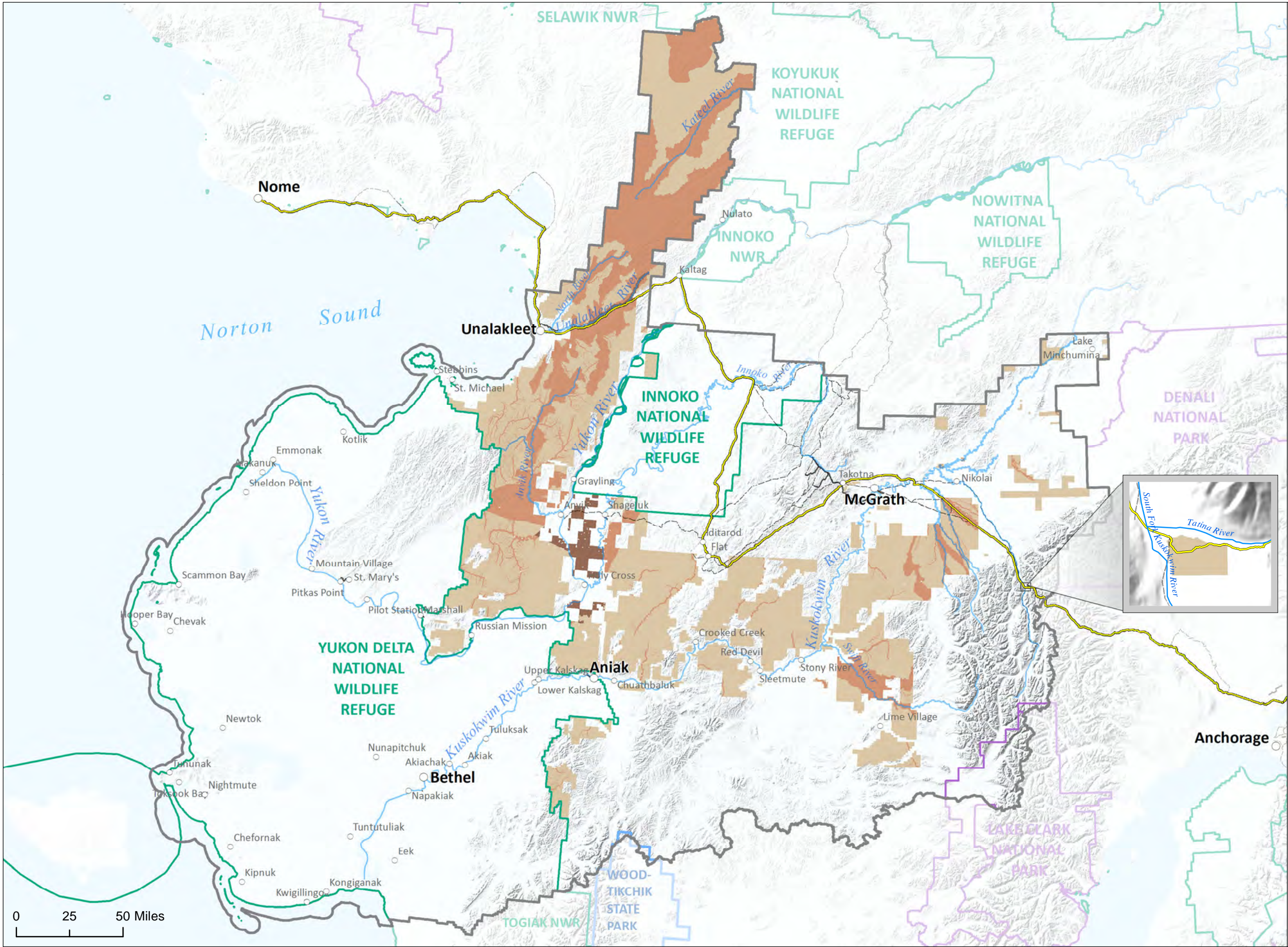
Locatable Mineral Potential

- Medium
- High
- Iditarod National Historic Trail Primary Route
- Iditarod National Historic Trail Connecting/Side Trails

Data Sources: BLM GIS 2017, 2018

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.





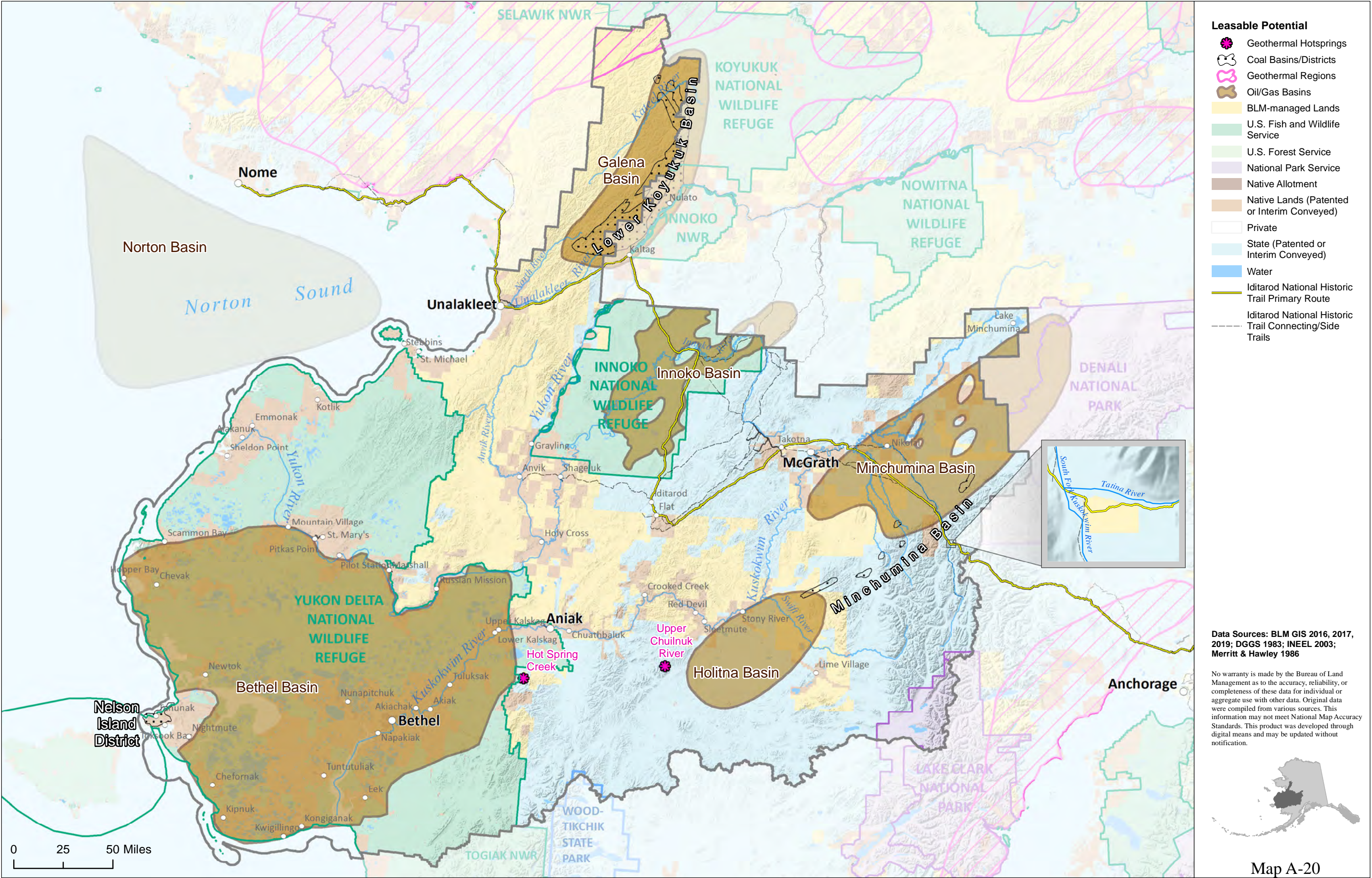
Salable Mineral Decisions

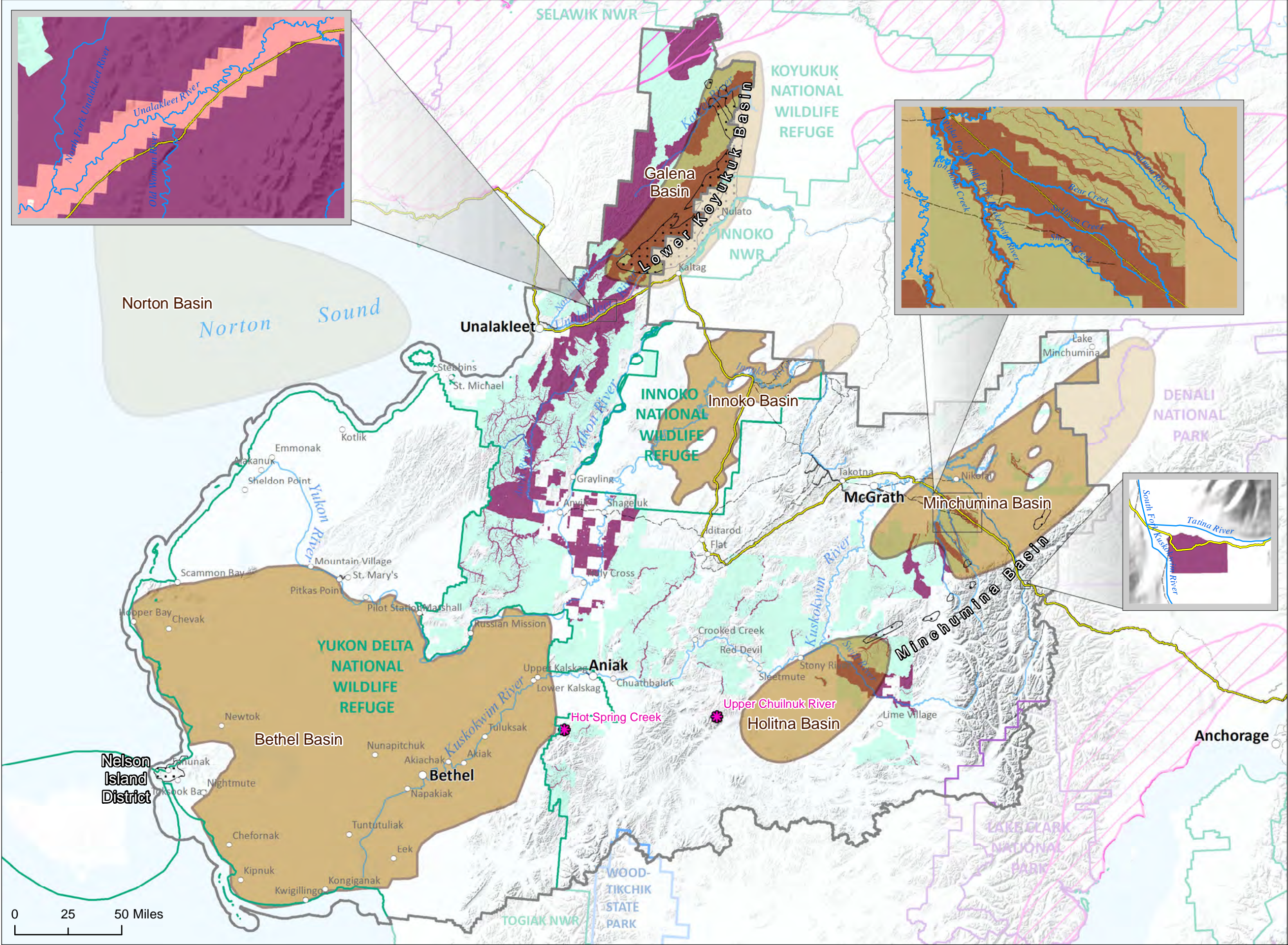
- Closed to Salable
- Open to Salable (Subject to Terms and Conditions)
- Open to Salable
- Iditarod National Historic Trail Primary Route
- Iditarod National Historic Trail Connecting/Side Trails

Data Sources: BLM GIS 2017, 2020

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.







Leasable Mineral Decisions

Open to Leasing (Subject to Standard Stipulations)

NSO Leasable (Subject to Valid and Existing Rights)

Closed to Leasable

Leasable Potential

Geothermal Hotspots

Coal Basins/Districts

Geothermal Regions

Oil/Gas Basins

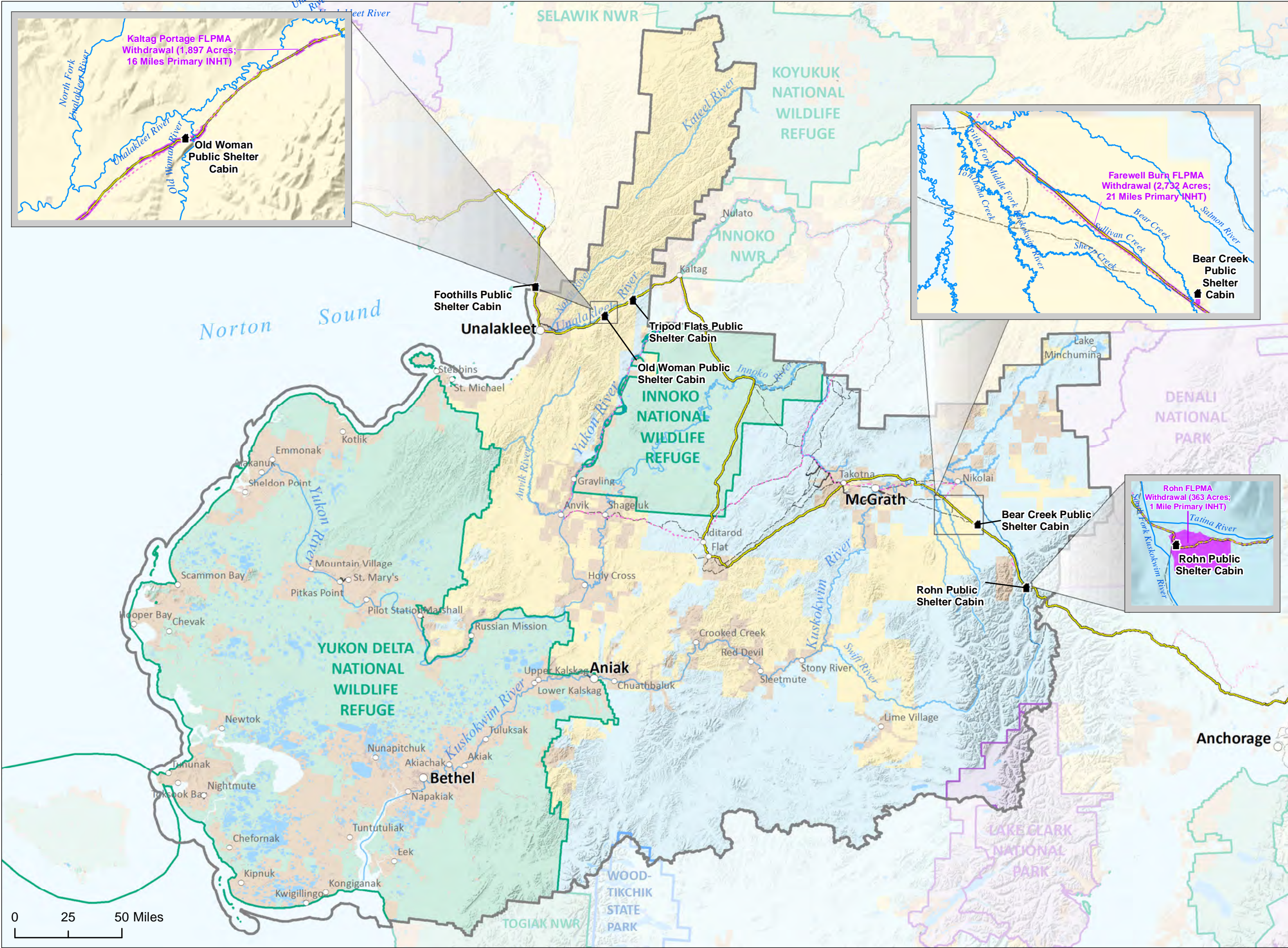
Iditarod National Historic Trail Primary Route

Iditarod National Historic Trail Connecting/Side Trails

Data Sources: BLM GIS 2016, 2017, 2020; DGGS 1983; INEL 2003; Merritt & Hawley 1986

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.





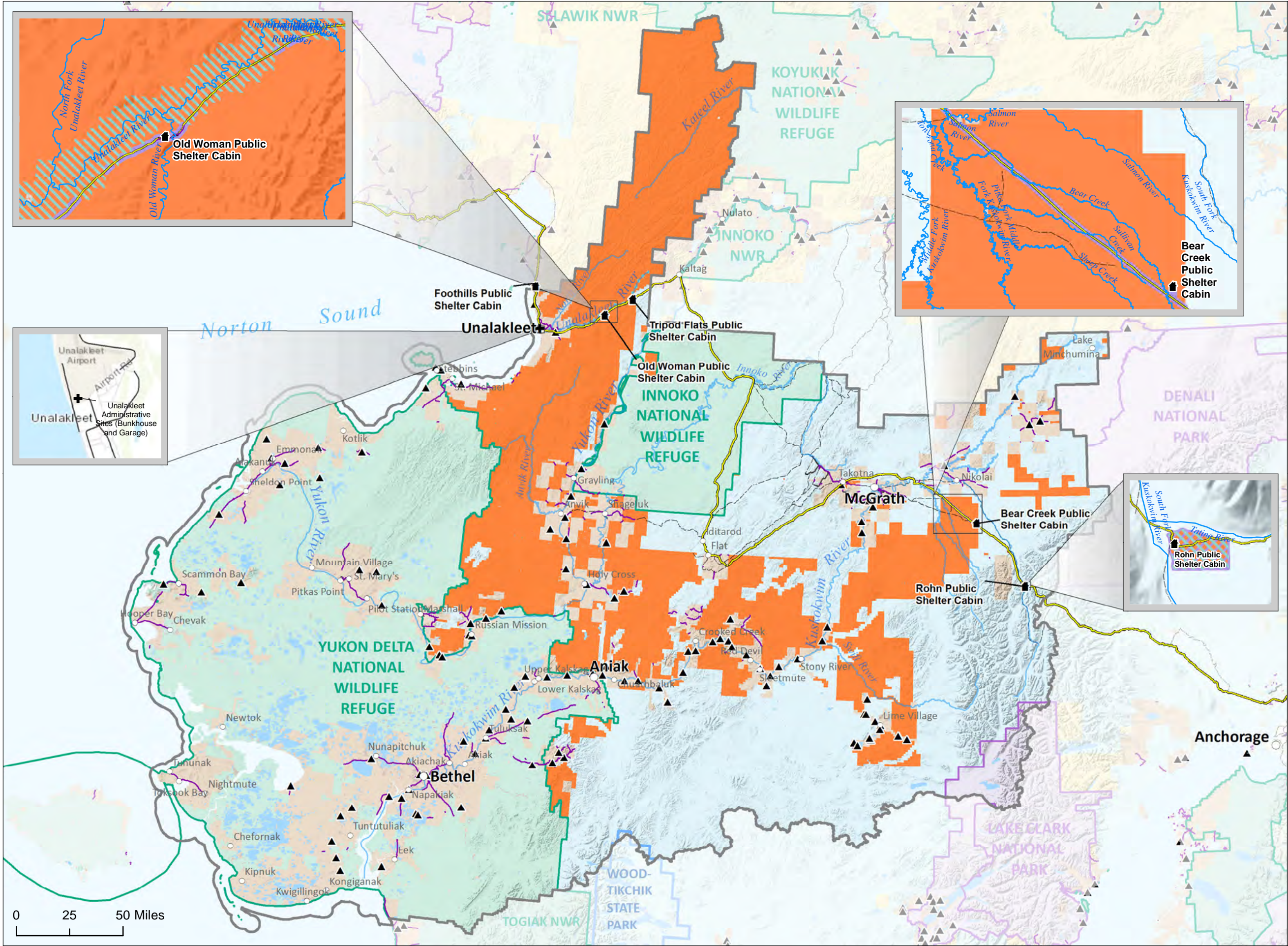
- FLPMA Withdrawal*
- BLM Public Shelter Cabin
- Iditarod National Historic Trail Primary Route
- Iditarod Contemporary Route
- Iditarod National Historic Trail Connecting/Side Trails
- BLM-managed Lands
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- National Park Service
- Native Allotment
- Native Lands (Patented or Interim Conveyed)
- Private
- State (Patented or Interim Conveyed)
- Water

*The determination on whether the withdrawal would include Locatable, Leasable, and/or Salable Mineral Entry would be determined when the withdrawal is proposed.

Data Source: BLM GIS 2015, 2017, 2018, 2019; ADN 2011

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.





Withdrawal Status

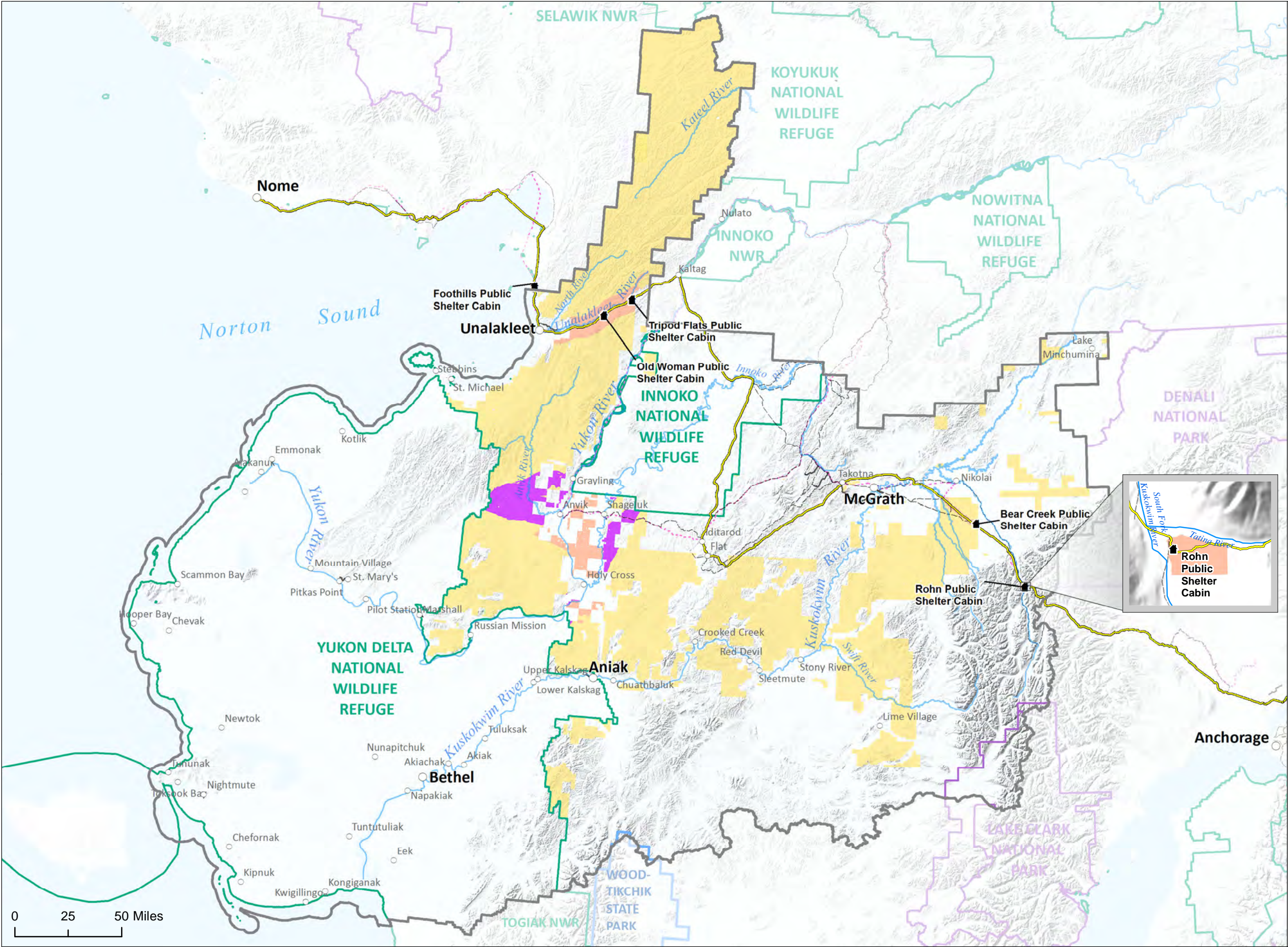
- Recommended Withdrawal
- Retained Withdrawal
- Revoked Withdrawal
- Unalakleet Administrative Sites (Recommended Withdrawal)
- BLM Public Shelter Cabin
- 17(b) Site
- 17(b) Easement
- Iditarod National Historic Trail Primary Route
- Iditarod National Historic Trail Connecting/Side Trails
- BLM-managed Lands
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- National Park Service
- Native Allotment
- Native Lands (Patented or Interim Conveyed)
- Private
- State (Patented or Interim Conveyed)
- Water

Withdrawals include PLOs, ANCSA 17(d)(1) withdrawals, FLPMA withdrawals, and mineral withdrawals that are newly recommended, identified for retainment, or identified for revocation under the Approved RMP.

Data Source: BLM GIS 2015, 2017, 2018, 2019; Esri et al. 2018

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.





- FLPMA ROW Management**
- ROW Avoidance Area (509,798 acres)
 - ROW Avoidance for Linear Realty Actions (413,179 acres)
 - Open to ROW Location (12,542,918 acres)
 - BLM Public Shelter Cabin
 - Iditarod National Historic Trail Primary Route
 - Iditarod National Historic Trail Connecting/Side Trails
 - Iditarod Contemporary Route

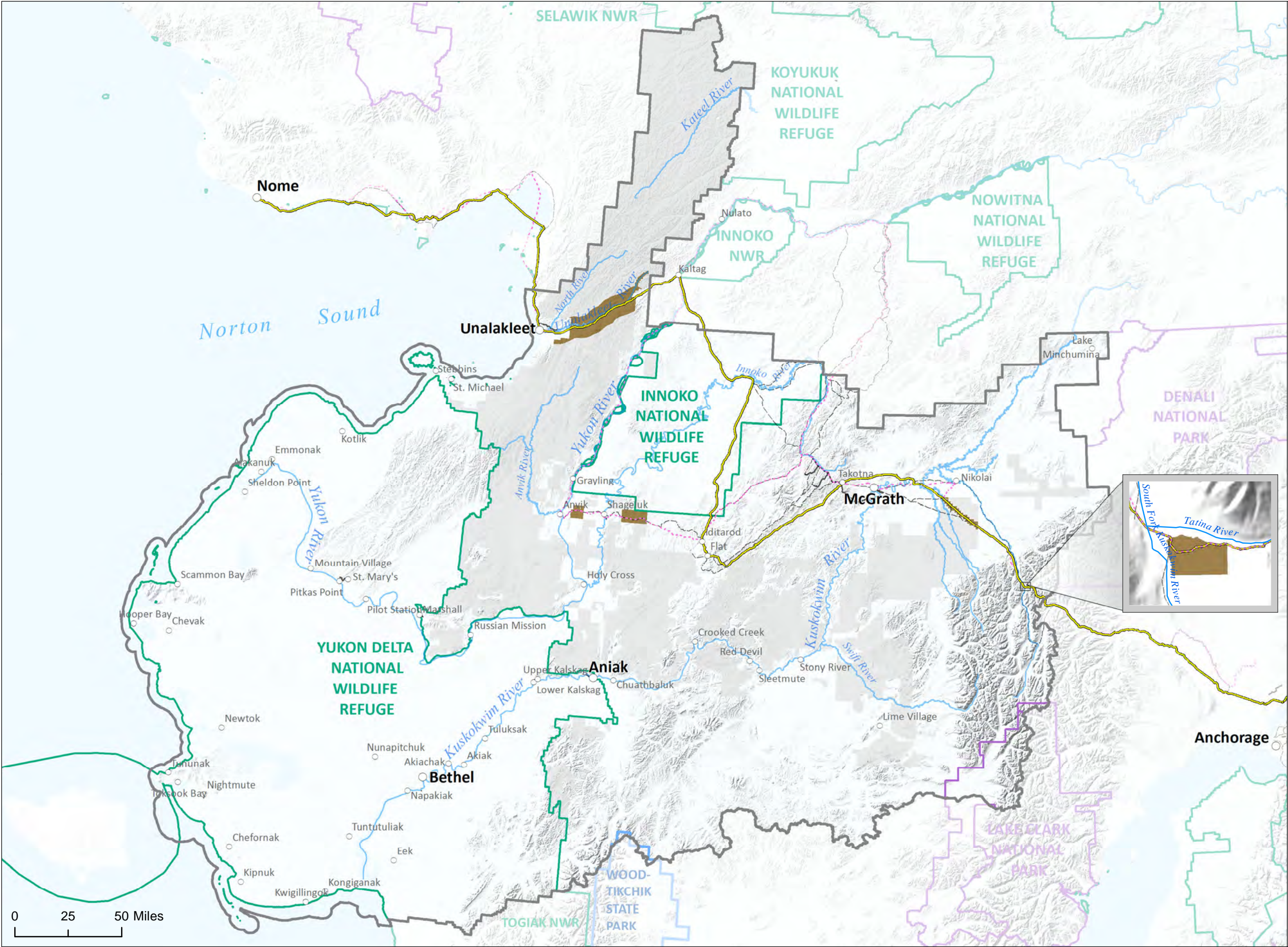
ROW Avoidance Areas: Areas to be avoided but may be available for location of right-of-ways with special stipulations as long as new ROW application documentation demonstrates: 1) the other locations researched and reasons each is not feasible, and; 2) project design features/ mitigation measures are incorporated to minimize resource concerns. Decisions to grant a ROW within a ROW avoidance area would be made on a case-by-case basis by the authorized officer after project specific NEPA has been completed.

ROW Avoidance Areas for Linear Realty Actions: Areas where new linear ROWs are to be avoided and placed in other areas if feasible. Areas may be available to location of linear right-of-ways with special stipulations as long as the new linear ROW application documentation demonstrates: 1) the other locations researched and reasons each is not feasible, and; 2) project design features/ mitigation measures are incorporated to minimize resource concerns. Decisions to grant a linear ROW within a linear ROW avoidance area would be made on a case-by-case basis by the authorized officer after project specific NEPA has been completed.

Data Sources: BLM GIS 2015, 2017, 2020; ADN 2011

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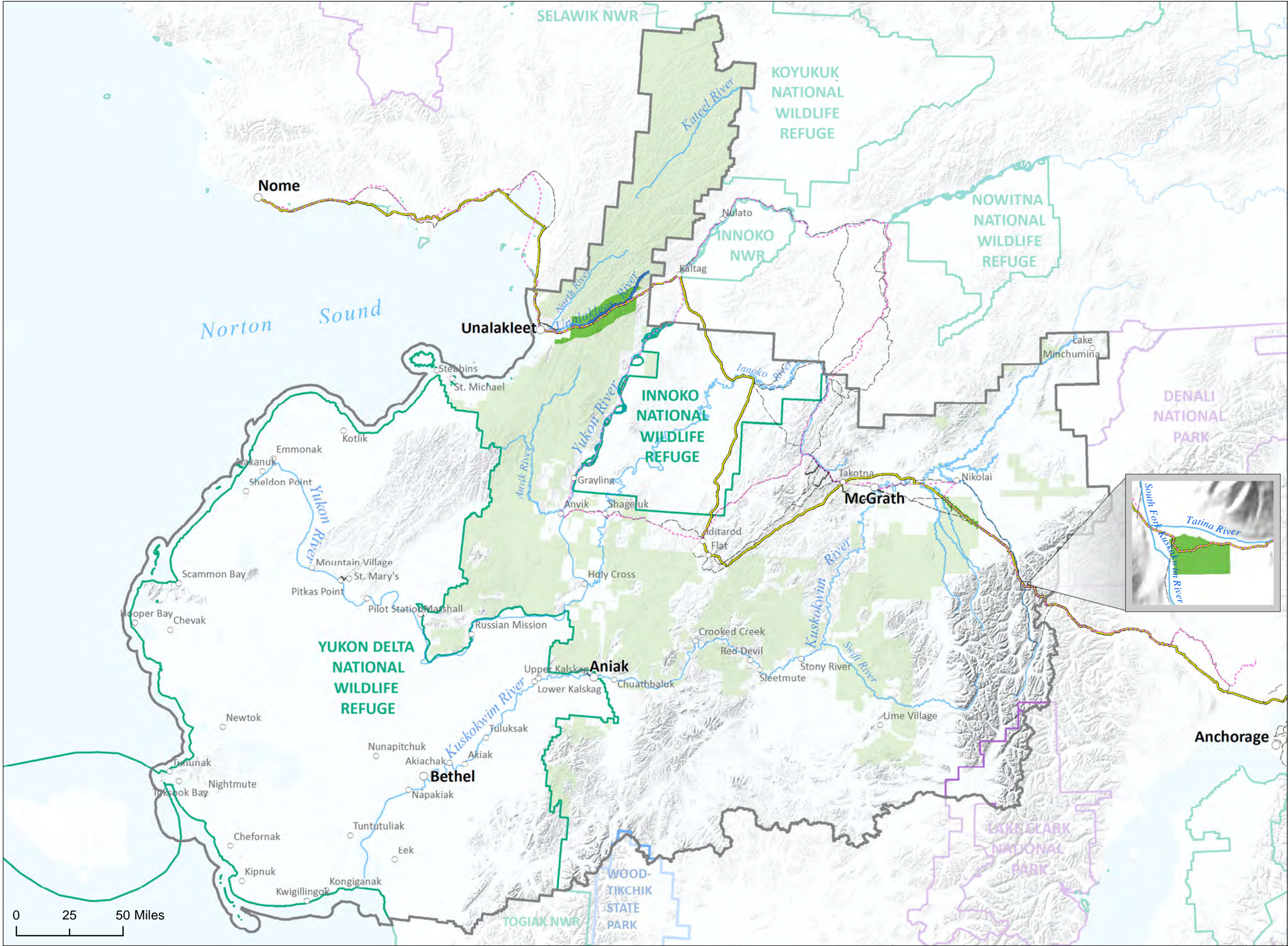


- Recreation Management Area**
- Iditarod NHT Special Recreation Management Area (SRMA)
 - Undesignated Recreation Lands
 - Iditarod National Historic Trail Primary Route
 - Iditarod Contemporary Route
 - Iditarod National Historic Trail Connecting/Side Trails

Data Source: BLM GIS 2017, 2021; ADNR 2011

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Travel and Transportation Management

- Unalakleet Wild River Corridor
- Iditarod National Historic Trail Travel Management Area*
- OHV Area Designation - Limited
- Iditarod National Historic Trail Primary Route
- Iditarod Contemporary Route
- Iditarod National Historic Trail Connecting/Side Trails
- Roads

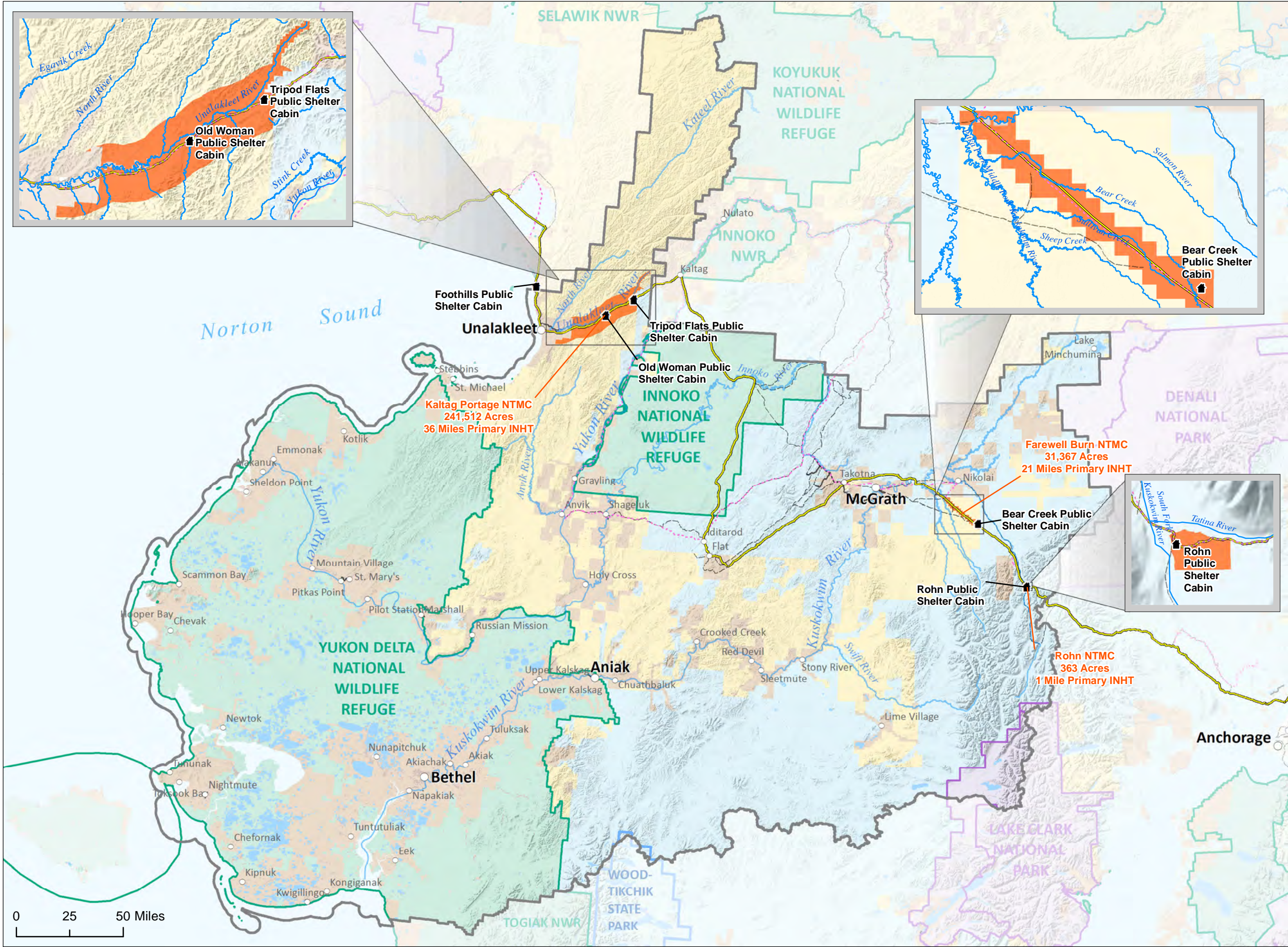
*The Rohn Site is within the INHT TMA but has specific management decisions beyond those included in the INHT TMA.

No data available for known Kuskokwim and Yukon Rivers intervillage surface travel routes.

Data Sources: BLM GIS 2017, 2018, 2020; ADN 2011; ADOT&PF 2012

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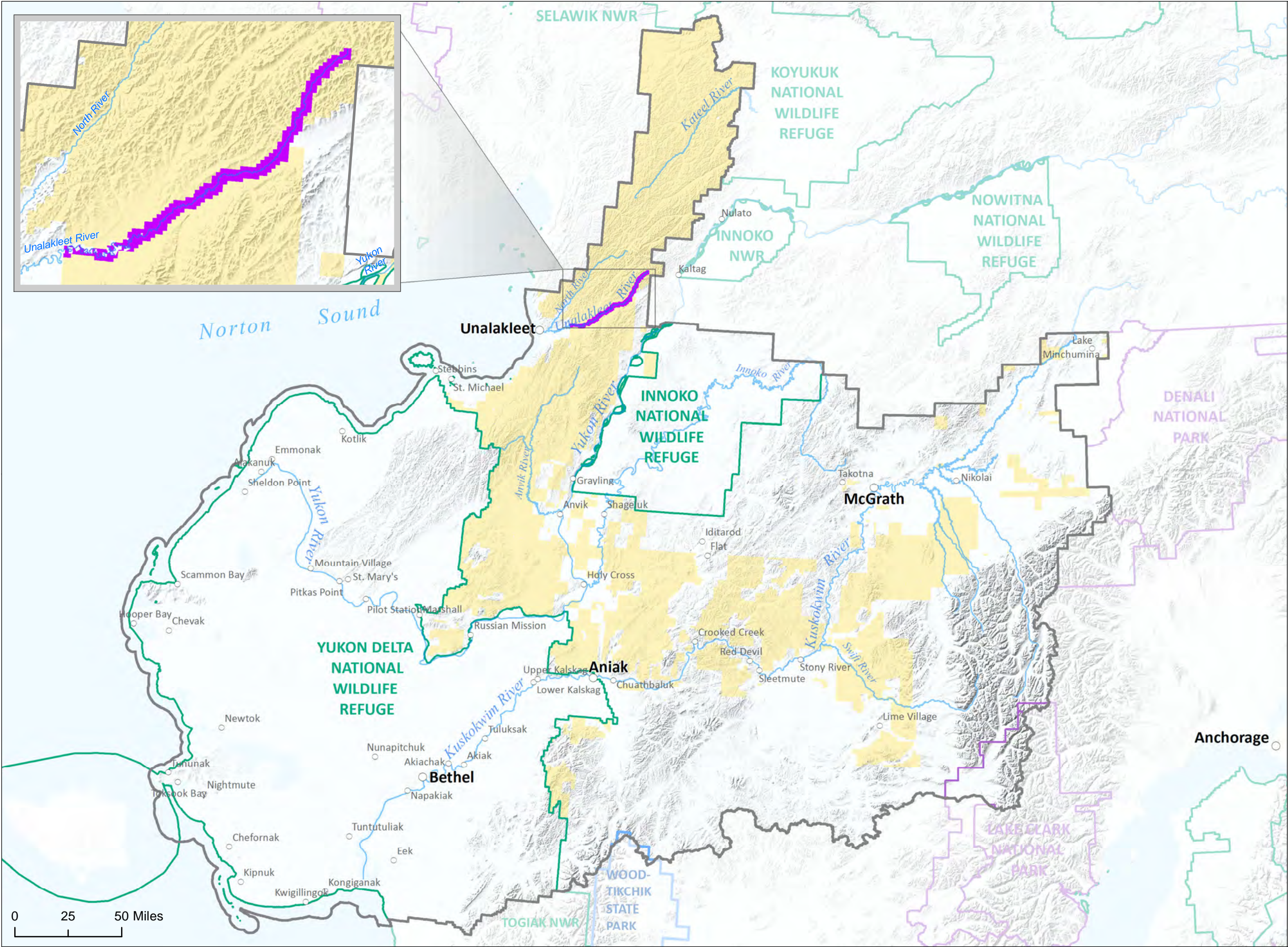
Iditarod NHT National Trail Management Corridor

- NTMC-Iditarod National Historic Trail
- BLM Public Shelter Cabin
- Iditarod National Historic Trail Primary Route
- Iditarod Contemporary Route
- Iditarod National Historic Trail Connecting/Side Trails
- BLM-managed Lands
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- National Park Service
- Native Allotment
- Native Lands (Patented or Interim Conveyed)
- Private
- State (Patented or Interim Conveyed)
- Water

Data Sources: BLM GIS 2015, 2017, 2018, 2019; ADN 2011

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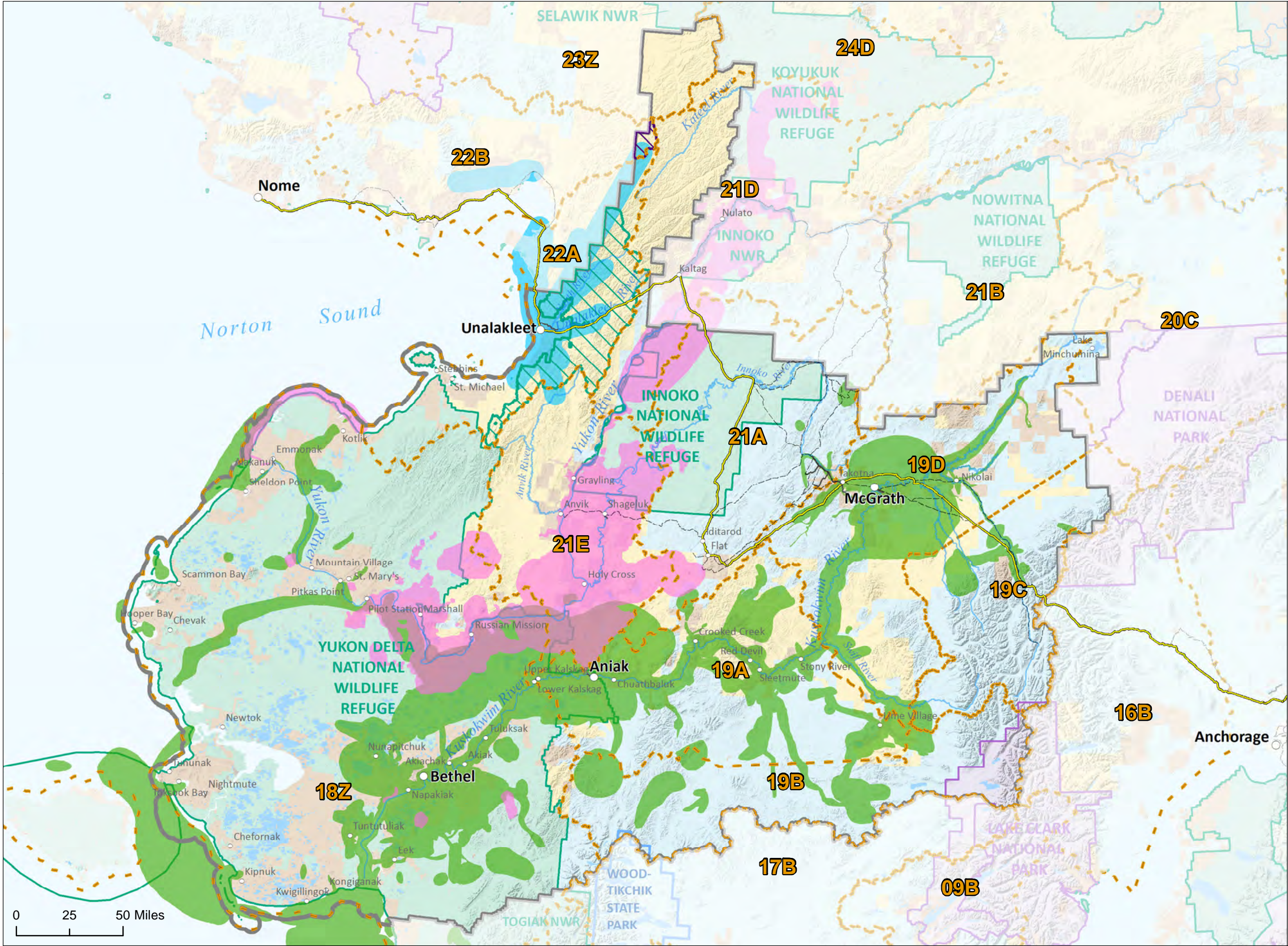
- Unalakleet Wild River Corridor (46,953 acres; 83 river miles)
- BLM-managed Land

Navigable waters are not subject to BLM management actions up to the ordinary high water line.

Data Source: BLM GIS 2017, 2018

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Federal Subsistence Units

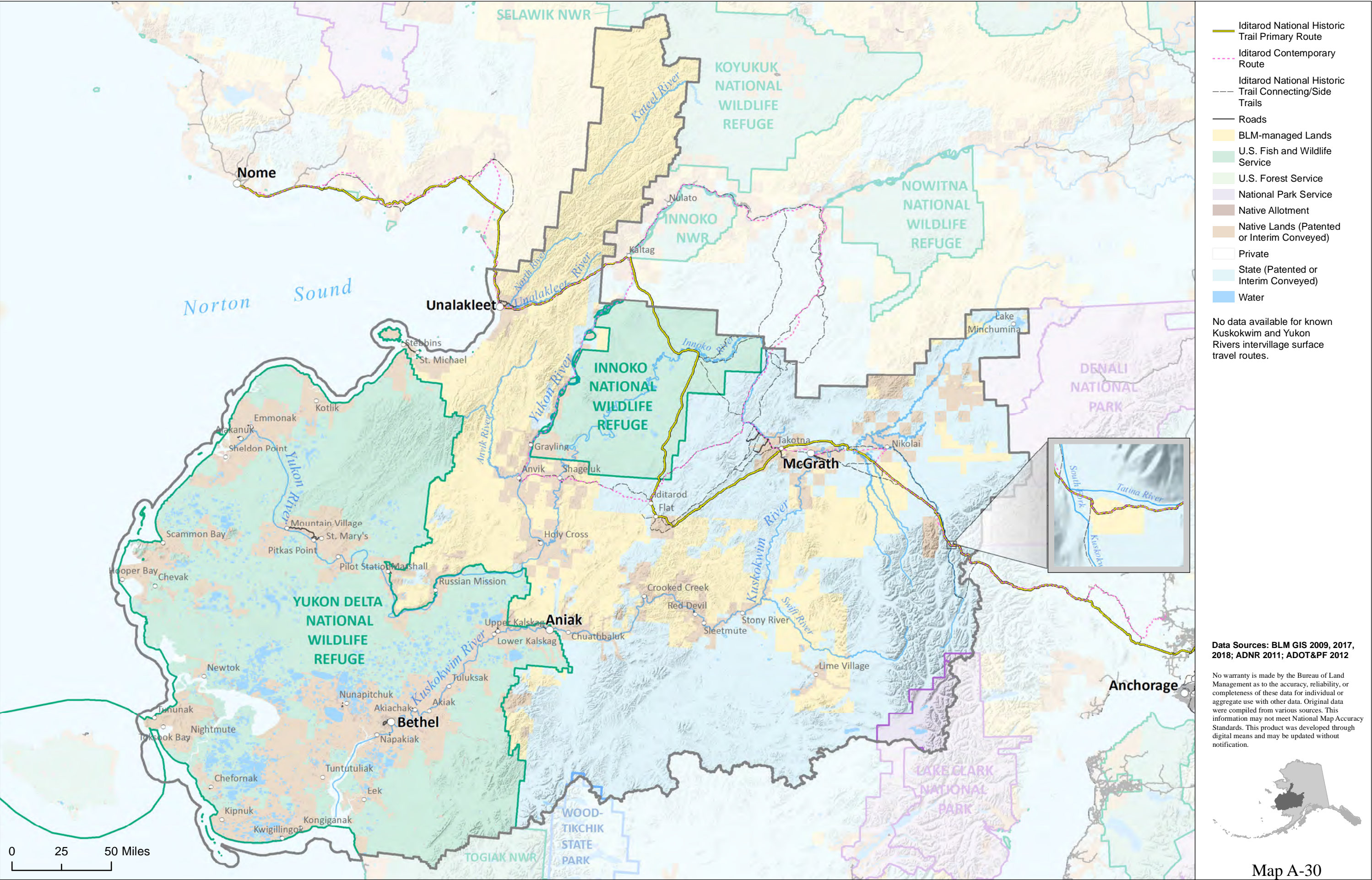
- 22A - BLM-managed Federal Subsistence Moose Hunt
- 22B - BLM-managed Federal Subsistence Moose, Musk Ox Hunt
- Game Management Units (AK Dept of Fish & Game)
- Norton Sound/Unalakleet River Search and Harvest Areas (includes community of Unalakleet)
- Yukon Communities Search and Harvest Areas (Includes communities of Anvik, Grayling, Holy Cross, Marshall, Nulato, Russian Mission and Shageluk)
- Kuskokwim Communities Search and Harvest Areas (Includes communities of Aniak, Bethel, Crooked Creek, Chuathbaluk, Kalskag, Lime Village, Lower Kalskag, McGrath, Nikolai, Red Devil, Sleetmute, Stony River and Takotna)
- BLM-managed Lands
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- National Park Service
- Native Allotment
- Native Lands (Patented or Interim Conveyed)
- Private
- State (Patented or Interim Conveyed)
- Water
- Iditarod National Historic Trail Primary Route
- Iditarod National Historic Trail Connecting/Side Trails

Data Source: BLM GIS 2016, 2017, 2018; ADF&G 2010, 2014, 2017; AECOM 2018

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.



Map A-29



Map Descriptions

<u>Map Number and Title</u>	<u>Map Description</u>
A-1: Permafrost Distribution – Planning Area Overview	Map A-1 shows the distribution of the following permafrost categories within the planning area (both Bureau of Land Management [BLM]-managed land and other land): lowland and upland area generally free of permafrost, lowland and upland area underlain by isolated masses of permafrost, lowland and upland area underlain by moderately thick to thin permafrost, lowland and upland area underlain by numerous isolated masses of permafrost, mountainous area underlain by discontinuous permafrost, and mountainous area underlain by isolated masses of permafrost. Most of the planning area consists of lowland and upland areas underlain by moderately thick to thin permafrost. Lowland and upland area underlain by numerous isolated masses of permafrost occurs along a portion of the Innoko River, along the Kuskokwim River, and throughout much of the southeastern portion of the planning area. Mountainous area underlain by discontinuous permafrost occurs in the Nulato Hills just north of the Unalakleet River, the Kuskokwim Mountains west of Takotna and at the northern edge of the planning area, and over a large section of the Alaska Range and Lime Hills north and east of Lime Village. Mountainous area underlain by isolated masses of permafrost occurs in the Alaska Range and Lime Hills east and south of Lime Village and in the Kuskokwim Mountains southeast of Aniak. One small section of lowland and upland area generally free of permafrost is located at the southern edge of the planning area, and two small sections of lowland and upland area underlain by isolated masses of permafrost are also located at the southern edge of the planning area. The map also shows the location of the Iditarod National Historic Trail (INHT) primary and connecting routes.
A-2: High-Value Watersheds – Planning Area Overview	Map A-2 shows the locations of high-value watersheds (HVWs) ranked as High, and the watersheds assessed for HVWs. The map states that management actions that pertain to HVWs are applied only to the 100-year floodplain of applicable streams within areas designated as HVWs. This map also shows land ownership and Essential Fish Habitat. With the exception of a few Hydrologic Unit Code (HUC) 12/Level 6 Watersheds, all watersheds are located outside the Yukon Delta and Innoko National Wildlife Refuges (NWRs). The High ranking applies to 199 HUC 12/Level 6 Watersheds. The High ranking occurs along segments of stream throughout the non-NWR portions of the planning area but is concentrated along rivers in the Nulato Hills and in areas with Essential Fish Habitat. Watersheds that were assessed for HVWs include 726 HUC 12/Level 6 Watersheds (47,472 stream miles).
A-3: Select Land Cover Classes – Planning Area Overview	Map A-3 provides a planning-area overview of the following land cover classes: sparsely vegetated areas; white spruce on well-drained floodplains; tall shrub, low shrub, and floodplains (generalized moose habitat); lichen habitats (generalized caribou habitat) and/or dwarf shrub; and herbaceous wetlands. The map also shows BLM-managed lands and the INHT primary and connecting routes. The tall shrub, low shrub, and floodplains cover class is well-distributed throughout the planning area, with large concentrations of this cover class in the Yukon Delta NWR along the Yukon and Kuskokwim Rivers. Lichen habitats and/or dwarf shrub are also prevalent throughout the planning area, particularly in the Yukon Delta and Innoko NWRs. Herbaceous wetlands are distributed throughout the planning area, with concentrations near rivers and in floodplains. Sparsely vegetated areas occur over a small section of the planning area, near its southern border and north of Wood-Tikchik State Park. White spruce on well-drained floodplains is an uncommon cover type that occurs along sections of river at various locations throughout the planning area.
A-4: Landscape Intactness Model – Planning Area Overview	Map A-4 shows landscape intactness on BLM-managed land and non-BLM-managed land throughout the planning area. The three categories shown are highest intactness, high intactness, and vulnerable, with areas of no color indicating landscapes that are not currently considered intact. The map also shows the location of the INHT primary and connecting routes. The vast majority of the planning area for all land ownerships is shown as being of highest intactness. Small areas of high intactness are scattered throughout the planning area, generally near vulnerable or non-intact landscapes, not far from developments. Vulnerable areas are smaller and are generally near roads and developments. Areas with no color include roads and developed areas. These areas are small and scattered throughout the planning area.

<u>Map Number and Title</u>	<u>Map Description</u>
A-5: BLM Special Status Plants – Planning Area Overview	Map A-5 represents known occurrences of special status plants as points showing general locations within the planning area. The map includes seven species: <i>Douglasia beringensis</i> (Arctic dwarf primrose), <i>Oxytropis kokrinensis</i> (Kokrines locoweed), <i>Ranunculus pacificus</i> (Pacific buttercup), <i>Ranunculus ponojensis</i> (Siberian buttercup), <i>Rumex beringensis</i> (Bering Sea dock), <i>Smelowskia pyriformis</i> (Pearshaped smelowskia), and <i>Trisetum sibiricum</i> ssp. <i>litorale</i> (Siberian false-oats). The map also shows land ownership and the INHT primary and connecting routes. There are nine mapped occurrences of <i>Smelowskia pyriformis</i> , most of which occur in higher elevation areas in the western portion of the planning area (Alaska Range and Lime Hills), with only one occurrence on BLM-managed lands. The rest are on State or Native land. There are four mapped occurrences of <i>Douglasia beringensis</i> , two in the same general area southwest of Lime Village (on Native or State land) and two on BLM-managed land in Nulato Hills in the general area of the Unalakleet and North Rivers. There are two mapped occurrences of <i>Oxytropis kokrinensis</i> on BLM-managed lands north of the Kateel River. There are two mapped occurrences of <i>Ranunculus ponojensis</i> on BLM-managed land in the general area of the Unalakleet and North Rivers. A single occurrence of <i>Ranunculus pacificus</i> is mapped along the southern edge of the planning area. A single occurrence of <i>Trisetum sibiricum</i> ssp. <i>litorale</i> is mapped east of Kotlik.
A-6: Ecoregions – Planning Area Overview	Map A-6 shows the ecoregions in the planning area, broken out by BLM-managed land and other land. The Ahklun Mountains are at the south end of the planning area, south of Aniak, and include the southeastern portion of the Yukon Delta NWR. The Alaska Range is near the eastern boundary of the planning area. The Kobuk Ridges and Valleys ecoregion includes a small wedge of land at the very northern tip of the planning area. The Kuskokwim Mountains bisect the central portion of the planning area. The Lime Hills are in the southeastern portion of the planning area, west of the Alaska Range, in the vicinity of Lime Village. The Nulato Hills are west and north of the Yukon River, stretching to the northern tip of the planning area. The Seward ecoregion covers a portion of the northwestern corner of the planning area. The Tanana-Kuskokwim Lowlands are between the Kuskokwim Mountains and Alaska Range/Lime Hills and run from the northeastern corner of the planning area at Lake Minchumina to almost the southern edge of the planning area. The Yukon River Lowlands include most of the Innoko NWR and an area to the south. The Yukon-Kuskokwim Delta generally coincides with the Yukon Delta NWR in the southwest portion of the planning area. The map also shows the location of the INHT primary and connecting routes.
A-7: Moose Habitat – Planning Area Overview	Map A-7 shows moose habitat on BLM-managed land and non-BLM-managed land in the planning area. The map shows general moose distribution, known calving concentrations, known rutting concentrations, and known winter concentrations. The map also shows the Innoko Bottoms Priority Wildlife Habitat Area and the INHT primary and connecting routes. General moose distribution covers the entire planning area except portions of the Alaska Range. Known calving concentrations are mapped along the Kuskokwim River between Lake Minchumina and Sleetmute and south of Sleetmute in the area between the Kuskokwim Mountains and Lime Hills. Known rutting concentrations are mapped east of the Innoko Bottoms Priority Wildlife Habitat Area, along the Kuskokwim River between Bethel and Aniak, west of the Kuskokwim River south of McGrath, and in an area west and south of the Alaska Range. Known winter concentrations are mapped near the northern tip of the planning area, along the Unalakleet River, in the Innoko Bottoms Priority Wildlife Habitat Area, in the Innoko NWR, in the northern portion of the Yukon Delta NWR, east of the Kuskokwim River near Lime Village, along the Swift River, north of the Alaska Range, and in other small, scattered areas.

<u>Map Number and Title</u>	<u>Map Description</u>
A-8: Caribou Habitat – Planning Area Overview	Map A-8 shows the locations of caribou herds, as represented by their total range, summer range, winter range, and calving ground. Information about eight caribou herds is included: Western Arctic, Sunshine Mountains, Beaver Mountains, Mulchatna, Farewell-Big River, Rainy Pass, Tonzona, and Denali. The map also shows a known caribou migration route, the Innoko Bottoms Priority Wildlife Habitat Area, BLM-managed land, and the INHT primary and connecting routes. The winter range and total range of the Western Arctic Caribou Herd includes the northern portion of the planning area/Nulato Hills area. The winter range and total range of the Mulchatna Caribou Herd occurs in the southeastern portion of the planning area, with summer range at the southern edge of the planning area, and a calving ground south of Lime Village. The Beaver Mountains Caribou Herd total range and summer range is shown west and southwest of McGrath. The Sunshine Mountains Caribou Herd total range and summer range is shown at the northern edge of the planning area, north of McGrath. The Tonzona Caribou Herd total range and summer range is at the east end of the planning area, near Denali National Park. In the same area, a small sliver of the Denali Caribou Herd total range intersects the Tonzona Caribou Herd total and summer range. The Rainy Pass Caribou Herd total range and summer range is at the east end of the planning area, generally south of the INHT. The Farewell-Big River Caribou Herd total range and summer range overlap those of the Rainy Pass Caribou Herd but are mostly farther to the west and northwest. The known caribou migration route is at the southern end of the planning area, south of Lime Village, and overlaps summer range and calving ground for the Mulchatna Caribou Herd.
A-9: Dall Sheep, Bison, & Muskox Habitat – Planning Area Overview	Map A-9 shows habitat (range or distribution) for plains bison, wood bison, muskox, and Dall sheep in the planning area. The map also shows the Innoko Bottoms Priority Wildlife Habitat Area, BLM-managed land, and the INHT primary and connecting routes. Plains bison range is north of the Alaska Range, and there is a small amount of overlap with Dall sheep range near the intersection of the Tatina and South Fork Kuskokwim River, as shown in an inset box. The wood bison extent range extends from Bethel to the northern edge of the planning area at the Innoko NWR boundary. It includes all of the Innoko Bottoms Priority Wildlife Habitat Area. The smaller wood bison core range also includes all of the Innoko Bottoms Priority Wildlife Habitat Area. Muskox range is shown in the area north of the Unalakleet River and along the western edge of the planning area, within the Yukon Delta NWR. Dall sheep distribution is mapped in high elevation areas of the Alaska Range.
A-10: Landscape Connectivity Corridor – Linkage Between Innoko and Yukon Delta National Refuges – Planning Area Overview	Map A-10 shows the location of the South Connectivity Corridor under the Approved Resource Management Plan (RMP). The South Connectivity Corridor has an east-west and a north-south component, both of which include the Innoko Bottoms Priority Wildlife Habitat Area. The connectivity corridor connects the Yukon Delta and Innoko NWRs. The display of the connectivity corridor differentiates between the most permeable portion of the corridor and the wider linkage. The most permeable portion of the corridor is in the center of the corridor. The map also shows the Innoko Bottoms Priority Wildlife Habitat Area, BLM-managed land, and the INHT primary and connecting routes.
A-11: Innoko Bottoms Priority Wildlife Habitat Area – Planning Area Overview	Map A-11 shows the location of the Innoko Bottoms Priority Wildlife Habitat Area under the Approved RMP. The map also shows BLM-managed land and the INHT primary and connecting routes. The location of the Innoko Bottoms Priority Wildlife Habitat Area between the Innoko NWR and the Yukon Delta NWR is identifiable on the map.
A-12: Potential Fossil Yield Classification – Planning Area Overview	Map A-12 shows the Potential Fossil Yield Classification (PFYC) of BLM-managed and other lands within the planning area. It also includes areas of water, snow, or ice, and the INHT primary route and connecting/side trails. No areas of “Very high” (PFYC 5) or “High” (PFYC 4) potential fossil yield have been identified in the planning area. Most of the planning area has a classification of “unknown” PFYC, as it has not been studied.

<u>Map Number and Title</u>	<u>Map Description</u>
A-13: Visual Resources Management (VRM) – Planning Area Overview	Map A-13 shows the VRM classifications designated for BLM-managed land under Approved RMP. VRM Class I is the strictest, and the map shows 46,953 acres located in the designated Unalakleet Wild River Corridor managed as VRM Class I. Map A-13 shows 2,645,370 acres designated VRM Class II. These areas include select subsistence use areas; offsets of the INHT and Iditarod-Anvik connecting trail, Old Woman Mountain, Unalakleet Wild River Corridor, Pike Lake; and undesignated Areas of Critical Environmental Concern geographies for areas identified as cultural resource relevant and important values. VRM Class III includes 5,809,494 acres, including areas identified for offsets from existing Summer and Winter Travel Routes, inland from coastlines, main travel routes of the Yukon, Anvik, and Kuskokwim Rivers, communities within the planning area, INHT connecting/side trails, the Unalakleet River (including below the designated Wild River corridor), Pike Lake; Subsistence Use Areas located in BLM-managed public lands ranked as scenic quality B or C; two parcels near Takotna and McGrath; and Nixon Fork, Flat, and Ophir Excluded Unconveyed Claim Areas. BLM land outside of these designations (4,964,076 acres) is shown as VRM Class IV.
A-14: Lands Managed for Wilderness Characteristics – Planning Area Overview	Map A-14 shows that under the Approved RMP, the entire planning area (13,466,003 acres) would be managed to emphasize other resource values and multiple uses as a priority and would not consider wilderness characteristics. The map also shows the INHT primary and connecting routes.
A-15: Commercial Woodland Harvest Area – Planning Area Overview	Map A-15 shows commercial woodland harvest areas that are open to permitting or closed to commercial harvest under the Approved RMP. The map also shows the INHT primary and connecting routes. Less than 1 percent of the planning area would be closed to harvest along the Unalakleet River.
A-16: Casual Use Subsistence Woodland Harvest Areas – Planning Area Overview	Map A-16 shows areas open to all subsistence and personal use woodland harvest. The map also shows areas where non-subsistence house log harvest would be prohibited, which are located along the Unalakleet River. The map also shows the INHT primary and connecting routes.
A-17: Grazing – Planning Area Overview	Map A-17 shows grazing lands on BLM-managed land under the Approved RMP. The map also shows the INHT primary and connecting routes. Areas closed to grazing and areas open to grazing are shown. Lands are closed to grazing along a portion of the Unalakleet River and also in an area northeast of the Unalakleet and North Rivers. An area southeast of the intersection of the Tatina and South Fork Kuskokwim Rivers also is closed to grazing as well as a minor area along the INHT southeast of McGrath. The remaining BLM-managed lands in the planning area are shown as open to grazing.
A-18: Locatable Mineral Decisions – Planning Area Overview	Map A-18 shows locatable mineral decisions under the Approved RMP. Areas open to locatable mineral entry and withdrawn from locatable mineral entry on BLM-managed lands are shown, along with areas of medium to high locatable mineral potential. The map also shows the INHT primary and connecting routes. The only area withdrawn from locatable mineral entry is along the Unalakleet River. The rest of BLM-managed land is open to mineral entry.
A-19: Salable Mineral Decisions – Planning Area Overview	Map A-19 shows salable mineral decisions under the Approved RMP. Areas on BLM-managed lands open to salable minerals, open subject to terms and conditions, and areas closed to salable minerals are shown. The map also shows the INHT primary and connecting routes. The area open to salable minerals represents 70 percent of BLM-managed lands in the planning area, while the area open to salable minerals subject to terms and conditions represents 28 percent of BLM-managed lands in the planning area. The area closed to salable minerals represents 2 percent of BLM-managed lands in the planning area.

<u>Map Number and Title</u>	<u>Map Description</u>
A-20: Leasable Mineral Potential – Planning Area Overview	Map A-20 shows leasable mineral potential within the planning area. The INHT primary and connecting routes are also shown. There are two geothermal potential hot springs in the Hot Spring Creek and Upper Chuilnuk River regions. A geothermal region occurs in the far northern portion of the planning area northwest of the Kateel River. Five potential oil and gas basins are shown: one in the southeastern portion of the Yukon Delta, two in the eastern portion of the planning area, one in the northern portion of the planning area, and one, the Innoko Basin, in the Innoko NWR within the north-central portion of the planning area. Two smaller coal basins are shown. The Lower Koyukuk Basin is located in the northernmost planning area northeast of the Kateel River, and the Minchumina Basin is located southeast of McGrath in the eastern planning area.
A-21: No Surface Occupancy (NSO) Leasables – Planning Area Overview	Map A-21 shows NSO leasable mineral areas that are subject to valid and existing rights for leasable potential for geothermal hot springs, coal basins, geothermal regions, and oil and gas under the Approved RMP. The map also shows leasable mineral decisions for areas open to leasing subject to standard stipulations, areas of NSO subject to valid and existing rights, and areas closed to leasable minerals. The INHT primary and connecting routes are also shown. Less than 1 percent of BLM-managed lands in the planning area would be closed to leasable minerals, predominantly along the Unalakleet River. Just under 70 percent of BLM-managed lands would be open subject to standard stipulations, and 30 percent would be NSO subject to valid and existing rights. These areas are located throughout the planning area, with a larger proportion of NSO leasable areas concentrated along the western band of BLM-managed land in the planning area.
A-22: FLPMA Withdrawals for the Iditarod National Historic Trail – Planning Area Overview	Map A-22 shows Federal Land Policy and Management Act (FLPMA) withdrawals for the INHT along with BLM public shelter cabin locations. Also shown are the land managers, respective managed areas within the planning area, and INHT primary and connecting routes. The FLPMA withdrawals include 363 acres along 1 mile of the primary INHT near the Rohn Public Shelter Cabin; 2,732 acres along 21 miles of the primary INHT in the Farewell Burn area in the vicinity of the Bear Creek Public Shelter Cabin; and 1,897 acres along 16 miles of the primary INHT in the vicinity of Kaltag Portage and the Old Woman Public Shelter Cabin. The determination of whether the FLPMA withdrawal would include locatable, leasable, and/or salable mineral entry would be made when the withdrawal is proposed.
A-23: Lands and Realty – Planning Area Overview	Map A-23 shows areas that are either recommended for withdrawal, retained for withdrawal, or proposed to have existing withdrawals revoked under the Approved RMP. Withdrawals shown on this map include Public Land Orders, Alaska Native Claims Settlement Act (ANCSA) 17(d) withdrawals, FLPMA withdrawals, and mineral withdrawals that are newly recommended, identified for retainment, or identified for revocation under the Approved RMP. Only a very small area of existing withdrawals are identified for retainment, along the Unalakleet Wild River Corridor. The recommended withdrawals are focused around the Kaltag Portage, Farewell Burn, and Rohn segments of the INHT. This map also shows land ownership; locations of Unalakleet Administrative Site, BLM public shelter cabins, and ANCSA 17(d) sites; water; and the INHT primary and connecting routes.
A-24: FLPMA Right-of-Way (ROW) Avoidance Areas – Planning Area Overview	Map A-24 shows areas for FLPMA ROW avoidance, linear project ROW avoidance, or open to ROW development under the Approved RMP. Most of the ROW avoidance acreage is located around the Unalakleet River and south past the Anvik River to the boundary of the Yukon Delta NWR. The map also shows the location of BLM public shelter cabins and the INHT primary, connecting, and contemporary routes.
A-25: Recreation Management Areas (RMAs) – Planning Area Overview	Map A-25 shows the designated Special Recreation Management Area (SRMA) with five INHT SRMA locations shown, the largest of which is along the Unalakleet River. The other SRMA locations are east of Anvik, east of Shageluk, south of Nikolai, and where the Tatina River crosses the South Fork Kuskokwim River. The remainder of the planning area outside of the INHT SRMA is considered BSWI Undesignated Recreation Lands. This area consists of the North and South Nulato Hills, the Yukon River Lowlands, the Kuskokwim Mountains, the Tanana-Kuskokwim Lowlands, the Lime Hills, and the Ahklun Mountains. The map also shows INHT primary, connecting, and contemporary routes.

<u>Map Number and Title</u>	<u>Map Description</u>
A-26: Travel and Transportation Management – Planning Area Overview	Map A-26 shows the Travel and Transportation Management areas under the Approved RMP. The map also shows roads and the INHT primary, connecting, and contemporary routes. Almost all of the BLM-managed land in the planning area is shown with the Off-Highway Vehicle Area designation of “Limited.” The map also shows the locations of the Unalakleet Wild River Corridor and the INHT Travel Management Area. The figure notes that the Rohn Site is within the INHT Travel Management Area but has specific management decisions beyond those included in the INHT Travel Management Area. The figure also notes that no data are available for known Kuskokwim and Yukon Rivers intervillage surface travel routes.
A-27: National Conservation Lands Iditarod National Historic Trail Proposed National Trail Management Corridor – Planning Area Overview	Map A-27 shows the INHT National Trail Management Corridor (NTMC) under the Approved RMP. The map also shows land ownership, water, and the INHT primary, connecting, and contemporary routes. The Kaltag Portage NTMC includes 36 miles of primary INHT and 241,512 acres; it is located near the Unalakleet Wild River just northwest of the Innoko NWR. The Farewell Burn NTMC includes 21 miles of primary INHT and 31,367 acres, located south of Nikolai. The Rohn NTMC includes 1 mile of primary INHT and 363 acres, located southeast of the Farewell Burn NTMC. The locations of five public shelter cabins are shown: Rohn (near the Rohn NTMC), Bear Creek (located at the eastern end of the Farewell Burn NTMC), Tripod Flats (located at the eastern end of the Kaltag Portage NTMC), Old Woman (located in the middle of the Kaltag Portage NTMC), and Foothills (located north of Unalakleet just north of the planning area boundary).
A-28: Wild & Scenic Rivers (WSR) – Planning Area Overview	Map A-28 shows that under the Approved RMP, the designated Unalakleet Wild River Corridor (83 river miles; 46,953 acres) would be brought forward as part of the National Wild and Scenic River System. The figure notes that navigable waters are not subject to BLM management actions up to the ordinary high water line.
A-29: Federally Permitted Subsistence Hunts, Subsistence Resources Search and Harvest Areas – Subsistence	Map A-29 shows federally permitted subsistence hunt areas and subsistence search and harvest areas. BLM-managed subsistence moose hunt areas are located in game management subunits 22A and B. The musk ox subsistence hunt is located in game management subunit 22B. “Search and Harvest” locations are shown for Norton Sound/Unalakleet communities (Unalakleet) located in the northwest corner of the planning area, Yukon Communities (Anvik, Grayling, Holy Cross, Marshall, Nulato, Russian Mission, and Shageluk) located primarily in the central portion of the planning area, and Kuskokwim Communities (Aniak, Bethel, Crooked Creek, Chuathbaluk, Kalskag, Lime Village, Lower Kalskag, McGrath, Nikolai, Sleetmute, and Stony River) located in the southern half of the planning area. The map also shows land managing entity and managed areas, water, and the INHT primary and connecting routes.
A-30: Transportation Networks – Travel and Transportation	Map A-30 shows the existing transportation system within the planning area. The map also shows land ownership and water. The INHT primary route, shown as a yellow line outlined in black, traverses through the entire planning area, entering the western boundary just north of Unalakleet and following the Unalakleet River to Kaltag, south through the Innoko NWR to Flat, northeast to McGrath, and finally southeast, where it exits the planning area. The Iditarod contemporary route, shown as a pink dotted line, enters the western boundary of the planning just north of Unalakleet and follows the Unalakleet to Kaltag, then travels south along the western boundary of the Innoko NWR to Anvik, then turns east toward Iditarod, where it turns north-northeast until it exits the planning area. INHT connecting/side trails include segments just west of Iditarod and just south of Flat, a segment travelling from Flat toward Takotna, some trail segments veering west and northwest, and other trail segments traveling east then southeast to exit the planning area. There are limited roads in the planning area that are concentrated around existing communities.

**Appendix B: Best Management Practices (BMPs)
and Standard Operating Procedures (SOPs)**

Appendix B. Best Management Practices (BMPs) and Standard Operating Procedures (SOPs)

Section 1. Introduction

Appendix B lists BMPs and SOPs that may be used at the project level to achieve desired outcomes for their respective resources. These BMPs and SOPs are guidelines to choose from for future National Environmental Policy Act (NEPA) projects analyzed in this planning area; however, they are not considered land use plan decisions. Because the BMPs/SOPs presented in this appendix are not mandatory, they may be updated or modified without a plan amendment.

BMPs/SOPs were developed based on the best information available during development of the BSWI Proposed Resource Management Plan (RMP)/Final Environmental Impact Statement (EIS). If applied at the project-level, the BMPs/SOPs could augment management decisions described in Section 2 of the Approved RMP or provide resource protection if there are no management actions considered protective of resources or if areas would be “open” areas to surface-disturbing activity. The Alaska National Interest Lands Conservation Act (ANILCA) 810 Analysis (Appendix R of the Proposed RMP/Final EIS) also calls out the establishment of BMPs/SOPs to satisfy ANILCA § 810(a)(3)(C): “Reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources results from such actions.”

The BLM will apply applicable BMP/SOPs to all actions, whether implemented by the BLM or authorized by the BLM and implemented by another individual, organization, or agency on public land, including but not limited to Federal Land Policy and Management Act (FLPMA) leases and permits, oil and gas activities, special recreation permits, renewable energy activities, timber harvest activities, mining Plans of Operation, and authorizations for rights-of-way. For fluid mineral leasing activities, BMPs/SOPs would apply in addition to the Standard Lease Terms and Leasing Stipulations, unless specifically excluded under the Approved RMP. Only those BMPs/SOPs concerning resources that are potentially affected by the action will be applied to authorized permits and authorizations. For example, BMPs/SOPs protecting caribou habitat would not apply to projects that are not located in caribou habitat. BMPs/SOPs may be modified through site-specific analysis of subsequent authorizations but still must meet the goals and objectives of the BSWI Approved RMP. BMPs/SOPs will continue to evolve as better resource information is gained and/or changes in technology become available. Modifications to BMPs/SOPs may be appropriate if other measures are taken to protect resources that would result in the same or reduced impact.

BMPs and SOPs are considered during the site-specific analysis that occurs during activity-level planning and, if adopted, are applied as conditions of approval to land use authorizations and permits. BMPs/SOPs are not selected as a condition of the permitted activities if the applicant has included them as part of the proposal or has identified an alternative, such as adoption of an acceptable BMP to meet stated resource management objectives. Applicants are encouraged to consider alternative methods, BMPs, and/or design features for BLM’s consideration during the permitting process. If an applicant does not include alternatives for agency consideration, the BMPs/SOPs identified will be incorporated into an approval for a proposed activity.

The Authorized Officer (AO) or their representative is responsible for ensuring that the intent of the BMPs and SOPs presented in this appendix are followed and that permittees comply with the

conditions of their authorization. Non-compliance will be documented, and a notice will be sent to the permittee, along with corrective actions and a time frame in which the actions are to be completed.

Section 2. Resource Areas

Table B-1: Air Quality and Air Quality-Related Values

SOP / BMP Number	SOP / BMP	Construction or Operation
Air-1	Road Use and Dust Abatement Apply water or road surface stabilizers/dust control additives to reduce dust deposition and degradation of air quality near communities.	Both

Table B-2: Soils

SOP / BMP Number	SOP / BMP	Construction or Operation
Soils-1	Where appropriate, roadways will be ditched on the uphill side. Culverts or low water crossings will be installed at suitable intervals. Spacing of drainage devices and water bars will be appropriate for the road gradient and soil erodibility of the site.	Construction
Soils-2	Design roads and trails for minimal disruption of natural drainage patterns. All road-building activity shall use BMPs established by the U.S. Forest Service (FSH 7709.56 – Road Construction Handbook Chapter 40 – Design) as well as BLM Manual 9113 and BLM Handbooks 9113-1, 9113-2, and 9115-1 to guide maintenance and road construction designs and requirements.	Construction
Soils-3	Roads and trails should avoid areas with unstable or fragile soils.	Construction
Soils-4	Water bars will be placed across reclaimed roads. Spacing will be dependent on road gradient, soil erodibility, and other site-specific factors.	Construction

SOP / BMP Number	SOP / BMP	Construction or Operation
Soils-5	<p>Road Construction</p> <ul style="list-style-type: none"> Locate temporary and permanent roads and landings on stable locations, e.g., ridge tops, stable benches, or flats, and gentle-to-moderate side slopes. Minimize road construction on steep slopes (>36.4 percent). Confine pioneer roads to the construction limits of the permanent roadway to reduce the amount of area disturbed and avoid deposition in wetlands, Riparian Areas, floodplains, and waters of the State. Install temporary drainage, erosion, and sediment control structures. Storm proof or close pioneer roads prior to the onset of the wet season. Design road cut and fill slopes with stable angles to reduce erosion and prevent slope failure. End-haul material excavated during construction, renovation, or maintenance where side slopes generally exceed 36.4 percent and any slope where side-cast material may enter wetlands, floodplains, and waters of the State. Construct road fills to prevent fill failure using inorganic material, compaction, buttressing, sub-surface drainage, rock facing, or other effective means. Design and construct sub-surface drainage (e.g., trench drains using geo-textile fabrics and drain pipes) in landslide-prone areas and saturated soils. Minimize or eliminate new road construction in these areas. Locate waste disposal areas outside wetlands, Riparian Areas, floodplains, and unstable areas to minimize risk of sediment delivery to waters of the State. Apply surface erosion control prior to the wet season. Prevent overloading areas, which may become unstable. Use controlled blasting techniques to minimize loss of material on steep slopes or into wetlands, Riparian Areas, floodplains, and waters of the State. Effectively drain the road surface by using crowning, insloping or outsloping, grade reversals (rolling dips), and water bars or a combination of these methods. Avoid concentrated discharge onto fill slopes unless the fill slopes are stable and erosion-proofed. Outslope temporary and permanent low volume roads to provide surface drainage on road gradients up to 6 percent unless there is a traffic hazard from the road shape. 	Construction
Soils-6	<p>Water Dependent Facilities</p> <ul style="list-style-type: none"> Construct boat ramps and approaches with hardened surfaces. Minimize riprap to a 4-foot width to protect concrete ramps. Docks must not be wider than 6 feet and must not include any treated wood. 	Construction
Soils-7	Snow and ice bridges will be removed, breached, or slotted before spring break-up. Ramps and bridges will be substantially free of soil and debris.	Both
Soils-8	<p>Overland moves and heavy equipment use:</p> <ul style="list-style-type: none"> Whenever possible, overland moves that are a part of permitted operations will occur during winter when frost and snow cover is sufficient to minimize vegetation and soil disturbance and compaction. The AO will determine the date when sufficient frost and snow cover exists, and overland moves should not occur until these conditions are met. Design and locate winter trails and ice roads for overland moves to minimize compaction of soils and breakage, abrasion, compaction, or displacement of vegetation. Clearing of drifted snow is generally allowed, to the extent that vegetative ground cover is not disturbed. When access is required in snow-free months, routes that utilize naturally hardened sites will be selected to avoid trail braiding, and wetlands will be avoided. The permittee will employ vehicle types and methods that minimize vegetation and soil disturbance, such as use of air or water craft, utilizing existing roads or trails, or use of low ground pressure vehicles. The use of heavy machinery in saturated soil conditions will be limited to low ground pressure designated machinery, unless mats or other mitigation are employed. 	Both
Soils-9	At the beginning of any surface-disturbing activities, topsoil will be stockpiled and saved for later reclamation. At sites with little or no pre-disturbance topsoil, which will result in an insufficient amount of topsoil to distribute over the entire disturbed area at a deep enough depth to adequately foster revegetation, specific areas best suited for reclamation efforts should be selected to receive the topsoil. If practicable, use topsoil and vegetation from adjacent areas. At sites where topsoil is not available, fine material may be stockpiled and used in place of topsoil. If any organics are available, they should be mixed in with the fines.	Both

SOP / BMP Number	SOP / BMP	Construction or Operation
Soils-10	Prudent use of erosion control measures, including diversion terraces, riprap, matting, temporary sediment traps, and water bars, will be employed as necessary to control soil erosion, as appropriate. In areas where little to no topsoil is present, efforts should be made to place the limited quantity of soil in areas prone to erosion or failure. If natural composition, texture, or porosity of the surface materials is not conducive to natural revegetation, an operator shall take measures to promote natural revegetation, including redistribution of topsoil, where available/practicable (11 Alaska Administrative Code [AAC] 97(a)(3)).	Both
Soils-11	Areas disturbed during project operation or construction will be reclaimed to as near pre-project conditions as practical. Wetland topsoil will be handled so it remains segregated from other soils. If necessary, use mulching, erosion control measures, and fertilization to achieve acceptable ground stabilization. Use inter-seeding, secondary seeding, or staggered seeding to accomplish revegetation objectives, as needed. Use follow-up seeding, corrective erosion control measures, or other approved measures on areas of surface disturbance that experience revegetation or ground stability failure. Corrective erosion control measures include, but are not limited to, broadcasting woody debris, planting viable portions of live shrubs (sprigging), and transplanting live vegetation from adjacent areas within the project area.	Both
Soils-12	The BLM recognizes that there may be more than one correct way to achieve successful reclamation of soil resources, and a variety of methods may be appropriate to the varying circumstances. The BLM will continue to allow applicants to use their own expertise in recommending and implementing construction and reclamation projects. These allowances still hold the applicant responsible for final reclamation standards of performance. The BLM will review the applicant's reclamation plan and if needed, incorporate conditions of approval to enhance success and mitigate impacts.	Both
Soils-13	Natural revegetation of disturbed sites is the generally preferred method for revegetation/stabilization of disturbed soils. Where erosion is problematic or rapid establishment of plant cover is desired, utilize a combination of seeding, planting, and transplanting of adult plants or vegetation mats, and/or fertilizing as necessary to mitigate soil erosion.	Both
Soils-14	For long-term storage of soil stockpiles provide protective cover such as organic mulch, herbaceous vegetation, jute matting, or other erosion-preventative fabric.	Both
Soils-15	Where roads are not available, overland movement of equipment, materials, and supplies is allowed when soils are frozen and sufficient snow cover exists to prevent soil compaction and loss or damage to vegetation. Overland travel at other times may be allowed by the AO based on the site characteristics and equipment types.	Both
Soils-16	Soil erosion will be minimized by restricting the removal of vegetation adjacent to streams and by stabilizing disturbed soil as soon as possible. (NOTE: This is not intended to preclude activities that by nature must occur within riparian or wetland areas, such as placer mining.)	Both
Soils-17	To minimize soil erosion, surface-disturbing proposals, involving constructions on slopes greater than 33 percent (3:1) will include an approved erosion control strategy, topsoil segregation/restoration plan, be properly surveyed, and designed by an engineer registered in the State of Alaska and approved by BLM prior to construction and maintenance. If, after an environmental analysis, the AO determines that pursuing other placement alternatives will cause undue or unnecessary degradation, occupancy in the no surface occupancy (NSO) area may be authorized. A modification may be granted if a detailed analysis finds that surface disturbance could occur without accelerated erosion. Locatable mining operations must include slope stability and erosion mitigation measures in their reclamation plan. The BLM may require an engineering review of slopes steeper than 33 percent that are proposed to be part of final reclamation. During active operations, slopes steeper than 33 percent must comply with all safety guidelines required by federal and State requirements.	Both

SOP / BMP Number	SOP / BMP	Construction or Operation
Soils-18	<p>Erosion Control Measures</p> <ul style="list-style-type: none"> • During roadside brushing, remove vegetation by cutting rather than uprooting. • Limit road and landing construction, reconstruction, or renovation activities to the dry season. Keep erosion control measures concurrent with surface disturbance to allow immediate storm proofing. • Apply native seed and certified weed-free mulch to cut and fill slopes, ditch lines, and waste disposal sites with potential for sediment delivery to wetlands, Riparian Areas, floodplains, and waters of the State. If needed to promote a rapid ground cover and prevent aggressive invasive plants, use interim erosion control nonnative sterile annuals before attempting to restore natives. Apply seed on completion of construction and as early as possible to increase germination and growth. Reseed if necessary to accomplish erosion control. Select seed species that are fast-growing, and provide ample ground cover and soil-binding properties. Apply mulch that will stay in place and at site-specific rates to prevent erosion. • Place sediment-trapping materials or structures such as straw bales, jute netting, or sediment basins at the base of newly constructed fill or side slopes where sediment could be transported to waters of the State. Keep materials away from culvert inlets or outlets. • Use biotechnical stabilization and soil bioengineering techniques as appropriate to control bank erosion (e.g., commercially produced matting and blankets, transplanted vegetation mats, live plants or cuttings, dead plant material, rock, and other inert structures). • Suspend surface-disturbing activity if forecasted rain will saturate soils to the extent that there is potential for movement of sediment from the road to wetlands, floodplains, and waters of the State, or otherwise employ engineering controls to prevent such movement. Cover or temporarily stabilize exposed soils during work suspension. • Upon completion of surface-disturbing activities, immediately stabilize fill material over stream crossing structures such as culverts. Measures could include but not be limited to erosion control blankets and mats, soil binders, soil tackifiers, or placement of slash. • Apply fertilizer in a manner to prevent direct fertilizer entry to wetlands, Riparian Areas, floodplains, and waters of the State. 	Both
Soils-19	<p>Road Maintenance</p> <ul style="list-style-type: none"> • Prior to the defined site-specific wet season, provide effective road surface drainage maintenance. Clear ditch lines in sections where there is lowered capacity or obstructed by dry loose slough, gravel, sediment wedges, small failures, or fluvial sediment deposition. Remove accumulated sediment and blockages at cross-drain inlets and outlets. Grade natural surface and aggregate roads where the surface is uneven from surface erosion or vehicle rutting. Restore crowning, outsloping, or insloping for the road type for effective runoff. Remove or provide outlets through berms on the road shoulder. After ditch cleaning prior to hauling, allow vegetation to reestablish or use sediment entrapment measures (e.g., sediment trapping blankets and silt fences). • Retain ground cover in ditch lines, except where sediment deposition or obstructions require maintenance. • Maintain water flow conveyance, sediment filtering and ditch line integrity by limiting ditch line disturbance and groundcover destruction when machine cleaning within 200 feet of road stream crossings. • Avoid undercutting of cut-slopes when cleaning ditch lines. • Remove and dispose of slide material when it is obstructing road surface and ditch line drainage. Place material on stable ground outside of wetlands, Riparian Areas, floodplains, and waters of the State. Seed with native seed and use weed-free mulch. • Do not sidecast loose ditch or surface material where it can enter wetlands, Riparian Areas, floodplains, and waters of the State. • Retain low-growing vegetation on cut-and-fill slopes. • Seed and mulch cleaned ditch lines and bare soils that drain directly to wetlands, floodplains, and waters of the State, with native species and weed-free mulch. 	Both

SOP / BMP Number	SOP / BMP	Construction or Operation
Soils-20	<p>Road Closure and Reclamation</p> <ul style="list-style-type: none"> Inspect reclaimed roads to ensure that vegetation stabilization measures are operating as planned, drainage structures are operational, and noxious weeds are not providing erosion control. Conduct vegetation treatments and drainage structure maintenance as needed. Reclaim temporary roads upon completion of use. Prevent vehicular traffic, utilizing methods such as gates, guard rails, earth/log barricades, to reduce or eliminate erosion and sedimentation. Convert existing drainage structures such as ditches and cross drain culverts to a long-term maintenance free drainage configuration such as an outsloped road surface and water bars. Place and remove temporary stream crossings during the dry season, without overwintering, unless designed to accommodate the 100-year design flood event. Place excavated material from removed stream crossings on stable ground outside of wetlands, Riparian Areas, floodplains, and waters of the State. In some cases, material could be used to recontour old road cuts or be spread across roadbed to prevent erosion. Reestablish stream crossings to the natural stream gradient. Excavate side slopes back to the natural bank profile. Reestablish appropriate channel width and floodplain surface slope and extent to promote stream stability and geomorphic function. Install cross ditches or water bars upslope from stream crossing to direct runoff and potential sediment to the hillslope rather than deliver it to the stream. Following culvert removal and prior to the wet season, apply erosion control and sediment trapping measures (e.g., seeding, mulching, straw bales, jute netting, and native vegetative cuttings) where sediment can be delivered into wetlands, Riparian Areas, floodplains, and waters of the State. Implement tillage measures for remaining fill, including ripping or subsoiling to an effective depth. Treat compacted areas including the roadbed, landings, construction areas, and spoils sites. After tilling the road surface, pull back unstable road fill and end-haul or contour to the natural slopes. 	Both
Soils-21	<p>Road Use</p> <ul style="list-style-type: none"> On active haul roads, use durable rock or engineered surfacing designed to resist rutting or development of sediment on road surfaces that drain directly to wetlands, floodplains, and waters of the State. Prior to winter hauling activities, implement structural road treatments such as increasing the frequency of cross drains, installing sediment barriers or catch basins, applying gravel lifts or asphalt road surfacing at stream crossing approaches, and armoring ditch lines. Remove snow on surfaced roads in a manner that will protect the road and adjacent resources. As much as practical, retain a minimum layer (4 inches) of compacted snow on the road surface. Provide drainage through the snow bank at intervals to allow snowmelt to drain off the road surface. Avoid removing snow from unsurfaced roads where runoff drains to waters of the State. To reduce sediment tracking from natural surface roads during active haul, provide a gravel approach before entrance onto surfaced roads. Install temporary culverts and washed rock on top of low-water ford to reduce vehicle contact with water during active haul. Remove culverts promptly after use. 	Both

SOP / BMP Number	SOP / BMP	Construction or Operation
Soils-22	<p>Off-Highway Vehicle (OHV) Trails</p> <ul style="list-style-type: none"> • Locate new OHV trails on stable locations (e.g., ridge tops, benches, and gentle-to-moderate side slopes) as much as possible. Minimize trail construction on slopes 8 percent or greater where runoff could channel to a waterbody or create excessive erosion. • Design, construct, and maintain trail width, grades, curves, and switchbacks suitable to the terrain and designated use. Use and maintain surfacing materials suitable to the site and use, to withstand traffic and to minimize runoff and erosion. • Suspend construction or maintenance of trails where erosion and runoff into waterbodies would occur. • Locate staging areas outside Riparian Areas. Design or upgrade staging areas to prevent sediment/pollutant delivery to wetlands, floodplains, and waterbodies (e.g., rocking or hardening and drainage through grading or shaping). • Designate class of vehicle suitable for the trail location, width, trail surfaces, and waterbody crossings, to prevent erosion and potential sediment delivery. • Designate season of use if the trail bed is prone to erosion, rutting, gully, or compaction, due to high soil moisture, standing water or snowmelt. • Use existing road crossings of streams and floodplains on low-volume roads and partially decommissioned roads that tie with the trail system, where safety permits. • Minimize low-water stream crossings for constructed or existing trails. Cross streams on stable substrate (e.g., bedrock, cobble) in areas of low streambanks. • Block alternate stream-crossing routes where OHV wheel slippage (acceleration/ braking) would tear down banks or deliver sediment. • Avoid motorized vehicle use in ponds and wetlands, and navigating up or down streams and side-channels. Use suitable barriers where feasible. • Design improved stream crossings (culverts and bridges) for the 100-year flood event. • In OHV bridge structures, avoid chemically treated materials at water level contact points where leachate or solids may enter waterbodies. • Use a temporary flow diversion bypass to minimize downstream turbidity, when constructing in perennial stream crossings. • When constructing or maintaining trails within Riparian Areas, do not cut the portion of logs or down woody material that extend into the active stream channel. Provide for adequate stabilization of the logs if not doing so would create a safety hazard. • Harden trail approaches to stream crossings using materials such as geotextile fabric and rock aggregate. • Hydrologically disconnect trails from waterbodies to the extent practicable. Install drainage features (e.g., drain dips and leadoff ditches), on approaches to stream crossings as needed to divert runoff and reinforce with rock for longevity. • Where trails intersect road ditches, provide erosion resistant crossings. Divert water from the trail to keep from reaching wetlands, floodplains, and waterbodies. • If trail width is too wide for the designated use (such as old roads converted to trails), consider tilling one side of the trail, covering with brush, and seeding or planting. • Repair rills and gullies to keep sediment from reaching wetlands, floodplains, and waterbodies. • Construct and repair water bars, drain dips, and leadoff ditches as needed. These features may need rock reinforcement to promote longevity. Self-maintaining drain dips or leadoff features are the preferred design. • Monitor trail condition to identify surface maintenance and drainage needs to prevent or minimize sediment delivery to waterbodies. • Close and rehabilitate unauthorized trails, where needed, to protect sensitive areas and water quality. 	Both

SOP / BMP Number	SOP / BMP	Construction or Operation
Soils-23	<p>Stream Channels</p> <ul style="list-style-type: none"> • In stream channels that are especially sensitive to disturbance (e.g., meadow streams or streams dominated by fine substrate), when practical, do not drive heavy equipment in flowing channels and floodplains. • Design access routes for individual work sites to reduce exposure of bare soil and extensive stream bank shaping. • Limit the number and length of equipment access points through Riparian Areas. • Inspect all mechanized equipment daily for leaks and clean as necessary to ensure that toxic materials, such as fuel and hydraulic fluid, do not enter the stream. • Locate equipment storage areas at least 100 feet from any water feature, including machinery used in stream channels for more than one day. • When using heavy equipment in or adjacent to stream channels during restoration activities, develop and implement an approved spill containment plan that includes having a spill containment kit on-site and at previously identified containment locations. • Use water bars, barricades, recovered topsoil, vegetation mats and/or seeding, and mulching to stabilize bare soil areas along project access routes prior to snowfall. • Prior to the wet season, stabilize disturbed areas (where soil will support seed growth) that have the potential for sediment delivery to wetlands and waters of the State. Apply native seed and certified weed-free mulch or erosion control matting in steep or highly erosive areas. If needed to promote a rapid ground cover and prevent aggressive invasive plants, use interim erosion control nonnative sterile annuals before attempting to restore native seed or plants. • Stabilize headcuts and gullies using techniques outlined in the NEH Part 654 Technical Supplements 14A-Q or other appropriate methods. Use large wood if appropriate and available. 	Both
Soils-24	<p>Soil and Water Protection BMPs</p> <ul style="list-style-type: none"> • BLM-permitted activities would be required to conform to State of Alaska requirements for minimum distances from perennial waterbodies. • Minimize riparian vegetation removal to what is necessary for BLM-permitted activity. • Monitoring and Evaluation: Develop objectives that are measurable, include a time frame, and are realistic for the reclamation treatments implemented. Objectives should address requirements for soil stability, establishment of vegetation (percent cover, species diversity, and density), and invasive species control. Undeveloped areas or regional reference datasets (e.g., Assessment, Inventory, and Monitoring [AIM]-National Aquatic Monitoring Framework) should be used as the reference for setting the standard for attainment of objectives. • No BLM-permitted surface-disturbing activities would be performed during periods when the soil is too wet to adequately support construction equipment, unless appropriate engineering controls are used (e.g., mats). Generally, if equipment creates ruts more than 2 inches deep, the soil may be deemed too wet to adequately support construction equipment; however, this standard may be varied by the AO based on site-specific conditions. 	Both

SOP / BMP Number	SOP / BMP	Construction or Operation
Soils-25	<p>Permafrost Protection Measures</p> <ul style="list-style-type: none"> For all surface-disturbing BLM-permitted activities and activities that require a reclamation plan (e.g., notice-level activities) in areas with permafrost, the BLM would require the project proponent's reclamation plan to include BMPs to avoid or minimize impacts to permafrost. These BMPs could include, but are not limited to, avoidance of critical areas; applying permafrost impact prevention measures (e.g., meet conditions of appropriate snow cover and frozen ground, leave vegetation intact, implement reclamation timeline, adjust seasons for operation and overland equipment moves, use minimum impact equipment); and compliance with State of Alaska Arctic Civil Engineering Requirements, if applicable. Surface disturbance would be avoided to the extent possible in areas with moss and peat to provide insulation to permafrost and prevent accelerated thawing. To the extent possible, the BLM would avoid authorizing temporary routes in areas with permafrost. BLM-permitted temporary routes constructed on permafrost should be built only in winter when snow cover and frost depth are adequate to leave vegetative layer intact. To the extent possible, the BLM would conduct or require re-insulation of disturbed permafrost areas to prevent additional permafrost thaw, and associated possible subsidence, by restoring the natural ground surface thermal regime, particularly on steep erosion-prone soils. Adequate snow cover (as defined in Appendix E of the Approved RMP) shall be present for snowmobile use or use of heavy equipment, which means a combination of snow and frost depth sufficient to protect the underlying vegetation and soil. When there is not adequate snow cover, use of all-terrain vehicles (ATVs) and utility terrain vehicles (UTVs) would be allowed if their use is compatible with the resource management objectives defined in this RMP for soils and applicable resources and resource uses. BLM-permitted roads/airstrips would be required to incorporate necessary engineering considerations on permafrost to provide adequate base material for insulation. Gas and oil pipelines and power utilities in permafrost areas would be required to be designed to account for permafrost conditions, which may include such features as being raised on elevated utilidors, laid on gravel foundations or pilings, or buried and sufficiently insulated to prevent permafrost degradation. 	Both
Soils-26	Where economically, technically, and logistically feasible, mining operation must directly transport all organic material (grass, plants, trees, tundra, etc.) from its original location to the point of reclamation without intermediate stockpiling. If stockpiling is required, all organic material should be specifically isolated from topsoil and overburden and utilized at the earliest feasible time.	Operation
Soils-27	At the end of operations, roads, well pads, and other disturbed areas will be re-contoured and revegetated per an approved reclamation plan or Plan of Operations. Revegetate through seeding of native seed or by providing soil conditions that allow the site to re-vegetate naturally, whichever provides the most effective means of reestablishing ground cover and minimizing erosion. Depending on soil type and the requirement of the reclamation plan, the final land surface may be required to be scarified to provide seed traps and erosion control.	Operation
Soils-28	<p>All Recreation Facilities</p> <ul style="list-style-type: none"> Implement erosion control measures at recreation sites to stabilize exposed soils where water flows or sediment may reach waterbodies. Minimize development of recreation facilities that are not water-dependent (e.g., boat ramps and docks) in the Riparian Areas. 	Operation

Table B-3: Water Resources and Fisheries

SOP / BMP Number	SOP / BMP	Construction or Operation
Water-1	Minimize as much as feasible road crossings causing disturbance below the ordinary high water mark in priority fish species spawning habitat.	Construction
Water-2	<p>New, replacement, and reconstructed stream crossing structures (such as bridges and culverts) will be designed to:</p> <ul style="list-style-type: none"> • Accommodate a 100-year flood event, including bedload and debris; • Maintain fish and aquatic organism passage; • Maintain channel integrity; • Accommodate mean bankfull channel widths; and • Incorporate adjacent reclamation (such as willow cuttings, wattles, brush layering) on the disturbed areas up and downstream of the abutments. 	Construction
Water-3	<p>Development within floodplains will be avoided where there is a practicable alternative. The 8-step process as identified in Executive Order 11988: Floodplain Management will be followed:</p> <ol style="list-style-type: none"> 1. Determine if a proposed action is in the base floodplain (that area which has a 1 percent or greater chance of flooding in any given year). 2. Conduct early public review, including public notice. 3. Identify and evaluate practicable alternatives to locating in the base floodplain, including alternative sites outside of the floodplain. 4. Identify impacts of the proposed action. 5. If impacts cannot be avoided, develop measures to minimize the impacts and restore and preserve the floodplain, as appropriate. 6. Reevaluate alternatives. 7. Present the findings and a public explanation. 8. Implement the action. 	Construction
Water-4	<p>The following provisions apply to the development, construction or use of roads, bridges, and culverts in rivers, streams, and wetlands:</p> <ul style="list-style-type: none"> • Bridge or culvert construction shall comply with site-specific requirements provided by BLM hydrology and fisheries staff, the Alaska Department of Natural Resources, the Alaska Department of Fish and Game (ADF&G), and other appropriate agencies. • Authorization holders of BLM-permitted activities shall furnish and install culverts using materials and in a manner to ensure free passage of fish, reduce erosion, maintain natural drainage, and minimize adverse effects to natural stream flow. • The holder would construct low-water crossings in a manner that will prevent any blockage or restriction of the existing channel. Material removed shall be stockpiled for use in rehabilitation of the crossings. • Culvert design and installation shall incorporate established techniques, modified where necessary for implementation in an Arctic or Sub-arctic environment, such as those found in U.S. Fish and Wildlife Service (USFWS) Culvert Design Guidelines for Ecological Function, Alaska Fish Passage Program (USFWS 2020). • Bridge and culvert designs and installations shall account for the effects of channel scour and constriction. • Culvert diameter must be designed for site-specific conditions. • Road crossings shall generally not be permitted in anadromous and resident spawning habitat, unless no feasible alternative exists. 	Construction

SOP / BMP Number	SOP / BMP	Construction or Operation
Water-5	<p>Apply the following provisions to stream crossings:</p> <ul style="list-style-type: none"> Project proponents must first consider a bridge, stream simulation culvert, or other spanning structure with a continuous natural channel before considering other options. The holder would construct low-water crossings in a manner that will prevent any blockage or restriction of the existing channel and the creation of a downstream perch or lip. Material removed shall be stockpiled for use in rehabilitation of the crossings. Bridges and culverts will be designed to avoid altering the direction and velocity of stream flow or interfering with migrating, rearing, or spawning activities of fish and wildlife. Bridges and culverts should span the entire non-vegetated stream channel at a minimum. No road crossings shall be permitted in anadromous and resident spawning habitat, unless no feasible alternative exists, and it can be demonstrated that no long-term adverse effects will occur. Roads will cross riparian zones and water courses perpendicular to the main channel. 	Construction
Water-6	Survey for special status species and other species of concern within a project area when a project is proposed to accurately determine baseline conditions. Design the project to avoid (if possible), minimize, or mitigate impacts on resources if there could be any potential negative impacts.	Construction
Water-7	<p>Drilling is prohibited in fish-bearing rivers and streams, as determined by the active floodplain and fish-bearing lakes, except where the applicant can demonstrate on a site-specific basis that impacts would be minimal or it is determined by the AO that there is no feasible or prudent alternative.</p> <p>Exploratory hardrock drilling should be conducted during periods of low water or when the area is frozen.</p> <p>Heavy, commercial, or exploratory equipment working in wetlands must be placed on mats, or other measures must be taken to mitigate or prevent vegetation and soil disturbance (e.g., ice roads, ice pads, adequate snow cover and 12 inches of ground frost, use of low ground-pressure equipment). Avoid ground operations in wetlands during spring break-up.</p> <p>Drilling could be allowed in these areas with appropriate mats installed and water control and 100 percent containment implemented.</p>	Both
Water-8	When feasible, all water intakes in fish-bearing waters will be screened and designed to avoid injury to fish prevent fish intake, in accordance with ADF&G permit requirements.	Both
Water-9	Reclamation plans for the rehabilitation of fish habitat as required under 43 Code of Federal Regulations (CFR) 3809.420(b)(3)(ii)(E). Consistent with 43 CFR 3809.420, stream reclamation plans will be designed to result in a geomorphically stable channel with adequate vegetation to reduce erosion, dissipate stream energy and promote the recovery of instream habitat. Stream reclamation will be evaluated using metrics of geomorphic stability based on established science, policy, and/or regional datasets (e.g., AIM). At the completion of reclamation, floodplain conditions should be able to withstand moderate flood discharge events (5- to 10-year flood event) through implementation of features such as, natural channel design, proper floodplain grading, vegetation mats or transplants, integrated rock and organic debris, and seeding (if appropriate). Bond release would be based on meeting specific measurable objectives outlined in a monitoring plan (43 CFR 3809.401(b)(3)).	Both
Water-10	Within high-value watersheds and Wild and Scenic Rivers (WSRs), baseline hydrological data adequate to characterize the seasonal flow patterns and discharge will be required prior to surface-disturbing activities with the potential to affect stream channel integrity or reduce riparian proper functioning condition. The BLM will be available to advise operators on the exact type of information and detail needed to meet this requirement. In these special management areas, reclamation plans will be designed to result in rehabilitation of habitats approved by the AO and will focus on enhanced revegetation techniques in floodplains, coupled with the standards and practices that have been demonstrated to result in creation of a geomorphically stable channels on placer-mined streams in Alaska.	Both
Water-11	No low-water crossings (fords) will be permitted in priority fish species spawning habitat during times of active spawning and when immobile life stages of fish are present (eggs and alevins) unless it is determined that impacts would be negligible.	Both
Water-12	Streams altered by channeling, diversion, or damming will be reclaimed to a condition that rehabilitates aquatic and riparian habitats. For mining operations, reclamation of the altered stream will be measured by the criteria identified in 43 CFR 3809.420.	Both

SOP / BMP Number	SOP / BMP	Construction or Operation
Water-13	Settling ponds will be cleaned out and maintained at appropriate intervals to comply with State and federal water quality standards. Fine sediment captured in the settling ponds will be protected from washout and left in a stable condition at the end of each field season to prevent unnecessary or undue degradation to the environment during periods of non-operation. Where not specifically specified in the mine plan, fines should be removed from the settling ponds where they can be mixed into the reclamation soils to facilitate fines replacement. Settling pond fines shall not be stockpiled without proper erosion control measures installed to prevent the erosion and transportation of fines. Erosion control measures can include placing berms around the base of the stockpile, covering the stockpile with a synthetic liner, temporarily covering the fines with topsoil and vegetation.	Both
Water-14	To the extent feasible and practicable, channeling, diversion, or damming that will alter the natural hydrological conditions will be avoided. This is not intended to preclude activities that by nature must occur within floodplain-riparian areas, such as placer mining.	Both
Water-15	Structural and vegetative treatments in riparian, wetland, and floodplain areas will be compatible with the ecological capability of the site, including the system's hydrologic regime and will contribute to maintenance or restoration of natural and proper functioning conditions (Executive Order 11988).	Both
Water-16	Projects requiring the withdrawal of water will be designed to maintain sufficient quantities of surface water and contributing groundwater to support fish, wildlife, and other beneficial uses. Minimal flows will be monitored to assure aquatic life forms are not impacted by withdrawals (such as strandings or freeze out). Withdrawing water from a fish-bearing waterbody requires an ADF&G Fish Habitat Permit.	Both
Water-17	State-designated stream crossings will be used where possible for vehicle travel. Stream crossings are online at http://www.habitat.adfg.alaska.gov/gpvehstreamxings.php , noted under the General Permits Index-Authorized Vehicle Stream Crossings.	Both
Water-18	When a stream must be crossed, the crossing will be as close to possible to a 90 degree angle to the stream. As much as feasible, stream crossings will be made at stable sections in the stream channel (which have low sensitivities to disturbance and low streambank erosion potential), based on Rosgen channel type evaluations. Crossing rivers or streams that support anadromous fish requires an ADF&G Fish Habitat Permit.	Both
Water-19	Disturbed stream banks will be recontoured and revegetated (or other protective measures taken) to prevent soil erosion into adjacent waters and provide stream bank stability. Active stream bank revegetation or other stabilization techniques will be required for all erosion-prone areas (such as stream bank and near stream areas), and active seeding and/or fertilization will be required for sites with little to no organic content (i.e., essentially bare mineral soil).	Both
Water-20	Avoid overland heavy equipment moves through wetlands in spring and summer when feasible. Stipulations and mitigating measures are provided through the normal permitting process to ensure wetland conservation and practical management.	Both
Water-21	Identify, encourage, and support research and studies needed to ensure that floodplain-wetland area management objectives can be properly defined and met. Incorporate research findings into the planning and management of floodplain-wetland ecosystems.	Both
Water-22	Water withdrawal from lakes may be authorized on a site-specific basis depending on size, water, volume, depth, fish population, and species diversification.	Both
Water-23	It is preferred that access and human activity in wetlands occur in the winter months, with sufficient snow cover and ground frost to prevent wetland vegetation and soil disturbance. Avoid ground operations in wetlands during spring break-up.	Both
Water-24	Where appropriate, maintain appropriate vegetation and riparian buffers around waterbodies to protect water quality and ensure wildlife habitat suitability is maintained. Manage Riparian Areas to provide adequate shade, sediment control, bank stability, and recruitment of wood into stream channels.	Both
Water-25	Vehicular travel up and down streambeds except by watercraft is prohibited unless ice is frozen to a sufficient depth to sustain the activity and the stream banks are a sufficient distance apart to allow for passage without adverse impacts to the banks.	Both

SOP / BMP Number	SOP / BMP	Construction or Operation
Water-26	For BLM-permitted activities, no storage of hazardous materials would be allowed within the 100-year floodplain of rivers or streams or within 100 feet of the ordinary high water mark of lentic features, such as lakes, ponds, springs, and wetlands; or on frozen bodies of water. Exceptions could be allowed at the discretion of the AO when approved spill prevention practices are implemented to prevent accidental release of the hazardous materials. The storage area for any hazardous materials must be approved by the AO.	Both
Water-27	Where instream operations are authorized, streams must be diverted using an appropriately sized bypass channel that is stable and resistant to erosion. For mining operations, reclamation of the altered stream will be measured by regulations and policy found in 43 CFR 3809.420.	Operations
Water-28	In mining operations and fluid mineral leasing operations, all process water and groundwater seeping into an operating area must be treated appropriately (i.e., use of settling ponds) prior to re-entering the natural water system.	Operations
Water-29	All permitted operations will be conducted in a manner to not block any stream or drainage feature.	Operations
Water-30	Where appropriate, overburden should be placed on uplands or on the upland side of mine pits.	Operations
Water-31	Scraping salable gravel from fish-bearing streams will be prohibited.	Operation
Water-32	Timber sales will include buffers to prevent disturbance of priority fish species habitat and sedimentation into streams. Buffer widths will be dependent on harvest method, season of harvest, equipment used, slope, vegetation, soil type, and 100-year floodplain areas for appropriate fish-bearing locations. Winter operations will be considered in order to avoid the need for road building and reduce impacts to soils, vegetation, and Riparian Areas.	Operation

Table B-4: Vegetation

SOP / BMP Number	SOP / BMP	Construction or Operation
Veg-1	Design and locate permanent and temporary facilities to minimize the development footprint.	Construction
Veg-2	Survey for special status species and other species of concern within a project area when a project is proposed to accurately determine baseline conditions. Where populations or individual sensitive status plant species are located, take measures to protect these populations or individuals through site-specific buffers or management prescriptions. Route new roads and trails away from known sensitive plant communities, with minimum 100-foot buffers; and minimize summer cross-country OHV travel where there are sensitive plants.	Both

Table B-5: Wildlife and Special Status Species

SOP / BMP Number	SOP / BMP	Construction or Operation
Wildlife-1	Design pipelines and roads to allow the free movement of wildlife and the safe, unimpeded passage of the public while participating in traditional subsistence activities. The currently accepted design practices are: (1) Above-ground pipelines will be elevated a minimum of 7 feet, measured from the ground to the bottom of the pipeline at vertical support members, to facilitate human and wildlife movement under the pipe; (2) In areas where facilities or terrain may funnel caribou movement, ramps over pipelines or buried pipelines may be required; (3) Co-locate roads and pipelines to address impacts to wildlife and subsistence; and, (4) Where feasible, maintain a minimum distance of 500 feet between above-ground pipelines and roads.	Construction

SOP / BMP Number	SOP / BMP	Construction or Operation
Wildlife-2	Employ industry-accepted BMPs to minimize raptors and other birds from colliding with or being electrocuted by utility lines, alternative energy structures, towers, and poles (http://www.aplic.org/). Where economically, technically, and logistically feasible, the BLM would require the burying of utility lines in raptor nesting areas. Where raptors are likely to nest in human-made structures (such as cell phone towers) and such use could impede operation or maintenance of the structures or jeopardize the safety of the raptors, equip the structures with either (1) devices engineered to discourage raptors from building nests, or (2) nesting platforms that will safely accommodate raptor nests without interfering with structure performance. Follow BMPs in accordance with Avian Power Line Interaction Committee for electrical lines. Guidelines for towers should follow USFWS guidelines for towers.	Construction
Wildlife-3	The use of guy wires on towers should be avoided in known raptor or waterbird concentration areas or in major avian migration routes if possible. However, if tall towers require the use of guy-wired apparatus, regardless of purpose, they will be marked in accordance with the guidance provided by the USFWS Guidance on the Siting, Construction, Operation, and Decommissioning of Communications Towers, dated September 14, 2000 (USFWS 2000), or a more current or contemporaneous version of that guidance.	Construction
Wildlife-4	Survey for special status species and other species of concern within a project area when a project is proposed, to accurately determine baseline conditions. Design the project to avoid (if possible), minimize, or mitigate impacts on resources if there could be any potential negative impacts.	Construction
Wildlife-5	To minimize habitat loss, the surface disturbance and the aerial extent of facilities will be minimized.	Construction
Wildlife-6	Caribou and moose wintering season generally occurs from October 31 through April 1. During this time, permitted activities in areas identified by the ADF&G as occupied caribou or moose wintering habitat must be planned to avoid or minimize impacts to wintering caribou and moose. Caribou and moose calving season generally occurs from April 15 through May 31. During this time, permitted activities in areas identified by the ADF&G as occupied caribou or moose calving habitat must be planned to avoid or minimize impacts to calving caribou and moose. Caribou movement corridors identified by BLM or ADF&G must be planned to avoid and minimize direct impacts to caribou movement across the landscape. Additionally, impacts from ground and vegetation disturbing activities in these corridors must avoid severing the movement of caribou across the landscape.	Both
Wildlife-7	From May 1 through August 31, avoid sustained human activity within one-quarter mile of known trumpeter swan nests and rearing ponds.	Both
Wildlife-8	Overhead powerline construction will be avoided in primary trumpeter swan breeding habitat as defined by the USFWS. Recreational developments, permits, or leases on lakes or lakeshores with historically active trumpeter swan nest sites or staging areas will only be allowed if the lessee or permittee can demonstrate on a site-specific basis that impacts are properly identified and mitigated.	Both
Wildlife-9	To prevent the entrapment of small animals, particularly birds, all hollow pipes or tubes that are approximately 5 to 25 centimeters (2 to 10 inches) in diameter will be filled or capped prior to installation (unless fixed horizontally). Mining claim posts shall be capped. Preference shall be made to the use of solid wood or metal posts.	Both
Wildlife-10	The best demonstrated and available technologies and methods will be used to prevent permanent facilities from providing nesting, denning, or shelter sites for ravens, raptors, and foxes to protect ground-nesting birds from increased predation. Where preventative measures are not applied, nesting platforms should be considered as an alternative mean to safely accommodate raptors.	Both
Wildlife-11	Permanent or semi-permanent access routes, regardless of purpose, shall be routed and concentrated to minimize habitat fragmentation.	Both
Wildlife-12	Projects would follow USFWS guidance for activities near active bald and golden eagle nests, including timing and distance requirements. Exceptions may be applied by written approval from the USFWS in situations where no practicable alternative exists.	Both

SOP / BMP Number	SOP / BMP	Construction or Operation
Wildlife-13	In crucial Dall sheep and mountain goat habitat, helicopters used in support of permitted activities will maintain one-half mile horizontal and 1,500 meter (4,921 feet) vertical distance from goats and sheep. Helicopter landings, unless for emergency purposes, are not permitted in Dall sheep or goat crucial ranges, as identified based on ADF&G maps and refined by monitoring.	Both
Wildlife-14	Minimize the potential spread of white nose syndrome in bats in caves and abandoned mines by applying containment and decontamination procedures.	Both
Wildlife-15	Priority raptor species are defined as peregrine falcon, gyrfalcon, golden eagle, and bald eagle. Nesting seasons are defined as from March 1–August 31 for bald eagles and golden eagles, and from May 1–July 15 for gyrfalcons and peregrine falcons (though they can start nesting up to 2 months earlier). For activities proposed within the nesting period, a raptor nest survey would be required within 5 days of the disturbance activity beginning. Exceptions to raptor SOPs may be applied by written approval from the USFWS in situations where no practicable alternative exists; where disturbance is adequately mitigated by site characteristics such as topography or vegetation or by known tolerance of nesting birds to activities at the location; or where raptors establish nests near previously constructed facilities.	Both
Wildlife-16	To minimize the direct loss of priority raptor foraging habitat, all reasonable and practicable efforts will be made to locate permanent facilities as far from priority raptor nests as feasible and to minimize habitat loss to the extent feasible. Of particular concern for avoidance are ponds, lakes, streams, wetlands, and riparian habitats.	Both
Wildlife-17	To minimize disturbance to nesting priority raptors, minimize BLM-authorized activity around nest sites.	Both
Wildlife-18	Vegetation clearing or introduction of domestic animals in riparian and wetland areas must maintain or restore to properly functioning condition and maintain hydrologic regime.	Both
Wildlife-19	In areas open to fluid or hardrock mineral leasing, prevent avoidable damage to habitats supporting special status species animals from proposed land uses by applying stipulations that requires applicants to avoid or minimize impacts to special status species or their habitats pursuant to BLM policy and Endangered Species Act consultation.	Both
Wildlife-20	Operations requiring vegetation clearing or other land disturbance should avoid migratory bird-nesting areas when birds are present and likely to be nesting/fledging during May 1–July 15. If these activities are to be conducted during the nesting window, a qualified biologist hired by the permittee and approved by BLM will conduct a site-specific study to determine if migratory bird nesting is applicable to the area within 5 days of the disturbance activity beginning.	Operations
Wildlife-21	All reasonable precautions will be taken to avoid attracting wildlife to food and garbage. Garbage from all BLM-authorized activities will be removed and properly disposed to prevent habituation of wildlife or alteration of populations. The BLM may require food and garbage to be stored in bear-proof containers or by methods that make it unavailable to bears or other wildlife.	Operations
Wildlife-22	When authorizing mineral material sale sites, avoid habitats crucial to local wildlife populations such as calving areas or raptor nesting sites. Avoid key geomorphic features such as cliffs; caves; river cut banks and associated riparian zones; springs; active channels of small, single channel rivers; and wetlands.	Operations

Table B-6: Wildland Fire

SOP / BMP Number	SOP / BMP	Construction or Operation
Fire-1	Utilize active management BMPs such as mowing, pre-commercial and commercial thinning, manual and mechanical cutting, linear fuel breaks, biological and chemical treatment, access road maintenance, prescribed fire and controlled burns, timber salvage, timber and biomass sales, piling, yarding, removing vegetative material, selling of vegetative products (including, but not limited to: firewood; biomass; timber; and fence posts), issuing grazing permits, application of pesticides, bio-pesticides and herbicides, seeding native species, invasive species management, jackpot and pile burning, fuels conversion to a less flammable type such as spruce to hardwoods, shearblading, and shaded fuel breaks.	Both
Fire-2	Work with interdisciplinary team during the project design phase to address potential impacts to permafrost and soils, habitat, watershed, fisheries, hydrology, hazmat, sensitive species, visual resource management, air quality, cultural resources, and other concerns.	Both

SOP / BMP Number	SOP / BMP	Construction or Operation
Fire-3	Maximize the utilization of natural barriers and physical features (such as roads and rights-of-way) within landscapes when designing fuel breaks and other vegetative treatments.	Both
Fire-4	Off-road use of heavy equipment and other motorized vehicles in wildland fire suppression or management activities requires approval of the AO. Any such use will be conducted in a manner that minimizes erosion and Riparian Area damage, avoids water quality or fish habitat degradation, and does not contribute to stream channel sedimentation.	Operations
Fire-5	Fire management in high-value watersheds, lands managed for wilderness characteristics as a priority, the Iditarod National Historic Trail (INHT) National Trail Management Corridor, and the Unalakleet Wild River Corridor, will be implemented without OHVs, heavy equipment, or other surface-disturbing vehicles.	Operations
Fire-6	Aerial and ground delivery of wildland fire chemicals on BLM-managed public lands will comply with the most current interagency and BLM policy (2016 Interagency Standards for Fire and Fire Aviation Operations, Chapter 12 or subsequent versions [DOI et al. 2018]).	Operations
Fire-7	Minimum Impact Suppression Techniques (MIST) will be considered for all fire management actions on BLM-managed public lands within the planning area.	Operations
Fire-8	Fire lines to mineral soil will not be built in or around Riparian Areas, unless they are needed to protect life, property, and/or wetland resources. Use natural features as preferred firebreaks over fire lines constructed to mineral soil. When possible, use hand crews to establish fire lines within (or adjacent to) Riparian Areas.	Operations
Fire-9	Firefighting camps will use appropriate food storage and deterrent techniques for bears.	Operations
Fire-10	To the extent practicable, manned and unmanned aircraft will avoid overflights within 1,500 feet of known occupied raptor nests during fire management activities.	Operations
Fire-11	Fire management actions, including prescribed fire operations, wildland fire suppression, and fire rehabilitation efforts, will protect burned and adjacent areas from the introduction and spread of nonnative invasive plants. Protection may include the use of washing stations with a containment system.	Operations
Fire-12	The responsible fire protection agency/organization would be required to use BMPs for cleaning and inspection of personal gear, tools, and all equipment prior to deployment to fire sites. Washing stations used for cleaning would be required to have a containment system.	Operations
Fire-13	Water delivery aircraft will not dip or scoop from waters infested by Elodea or other aquatic invasive species.	Operations
Fire-14	Suppression repair plans will be developed and implemented at the incident level to address resource damage caused by wildfire management actions.	Operations
Fire-15	Emergency stabilization and rehabilitation plans will be developed and implemented for inventorying, monitoring, and treatment of adverse fire effects that threaten life or property or natural and cultural resources resulting from the natural effects of a wildfire. The BLM will prioritize natural recovery from wildfire (USDA et al. 2006). Plans will be developed as needed.	Operations
Fire-16	Use unmanned aerial systems as a tool for wildland fire prevention, suppression, and landscape rehabilitation.	Operations

Table B-7: Cultural Resources

SOP / BMP Number	SOP / BMP	Construction or Operation
Cult-1	<p>Standard Measures to Reduce Visual Contrast—When a proposed project is found to be within the contributing setting of a historic property, an assessment of potential impacts is conducted through viewshed analyses, on-site inspection, and photo inspection. For historic trails such as INHT, protection measures would be carried out similarly to other historic properties if any project were found to be located within designated buffer of a contributing portion of the historic trail. When a proposed project is outside of the designated buffer of the trail but found to be within the Area of Potential Effects that contributes to National Register of Historic Places (NRHP) eligibility, analyses of potential impacts to the integrity of the setting will be carried out in the same way as other properties where setting is an aspect of integrity. Examples of BMPs used to ensure that there is not an adverse visual effect to historic properties include the following:</p> <ul style="list-style-type: none"> • Consolidating project facilities among oil, gas and geothermal developers, which also facilitates cumulative analysis • Developing coordinated road and pipeline systems • Reducing the amount of surface development by consolidating facilities (e.g., develop bottom hole wells using directional drilling from a single surface well location) • Using low-profile facilities • Using proper sighting and location to maximize the use of topography and vegetation to screen development • Designing projects to blend with topographic forms and existing vegetation patterns • Using environmental coloration or advanced camouflage techniques to break up visual intrusion of facilities that cannot be completely hidden • Using broken linear patterns for road developments to screen roads as much as possible (including feathering or blending of the edges of linear rights-of-way to break up the linearity) • Using electric fencing with low-visibility fiberglass posts and environmental colors (e.g., sage green) for livestock control • Designing linear facilities and seismic lines to run parallel to key observation points rather than perpendicular • Crossing the historic trails at right angles with linear developments when it would reduce the physical and visual impact • Modifying the orientation of facilities to present less of a visual impact (e.g., a facility with several tanks lined up so that one obscures the visibility of the others) 	Construction
Cult-2	Make every effort to avoid adverse effects if historic properties, including Traditional Cultural Properties, are found at project locations. Cultural resource protections and conservation will be consistent with Section 106, Section 110, and Section 101d; procedures under BLM's 2012 National Programmatic Agreement for Section 106 compliance or its successor agreement; and the 2014 Protocol for Managing Cultural Resources in Alaska between BLM Alaska and the Alaska State Historic Preservation Officer (SHPO) or its successor agreement.	Both
Cult-3	Mitigation measures will be considered for all actions that may potentially affect historic properties per Section 106 of the National Historic Preservation Act (NHPA) (54 United States Code 306108) and its implementing regulations. As noted in 36 CFR 800.1(a), federal agencies must "seek ways to avoid, minimize, or mitigate any adverse effects on historic properties." The extent and nature of recommended mitigation will be commensurate with the significance of the cultural resource involved and the anticipated extent of the damage. Costs for mitigation will be borne by the land use applicant. If the AO determines mitigation measures are necessary to protect and conserve cultural resources or to comply with the Section 106 process, a mitigation plan will be developed and implemented in consultation with the SHPO, and following the requirements and guidance of the NHPA and 36 CFR 800.	Both
Cult-4	Where a proposed undertaking may affect the physical integrity of a historic property, measures can be applied to reduce or eliminate the effects. BLM will work with the project proponent, the SHPO, and other consulting parties, to determine which practices would suit the needs of all parties. Application of BMPs depends on the nature of the undertaking and the nature of the historic property.	Both

SOP / BMP Number	SOP / BMP	Construction or Operation
Cult-5	Monitoring—Where avoidance of adverse effects is not feasible, or monitoring is a condition of a determination of no adverse effects because of the potential for an inadvertent discovery, a BLM-permitted archaeologist will monitor surface-disturbing activities. The presence of the monitors is to ensure that previously unknown cultural materials are immediately identified and construction in that area is halted to avoid further impacts to the resource and to ensure that known cultural resources located very near the project area are not inadvertently disturbed through construction activities. Before BLM authorization of the project, the project proponent submits a discovery plan outlining how the resources will be treated and the responsibilities of the project proponent and its subsidiaries. BLM archaeologists will review this plan, and it will be submitted to SHPO for concurrence. In the case where monitoring results in a discovery situation, the discovery plan is implemented. Depending on the nature of the discovery, the project may be allowed to proceed or be redesigned. Data recovery may also be required.	Both
Cult-6	Mitigation—Mitigation measures are determined by the types of proposed actions, the nature of the potential effect, and the qualities of the historic property that render it eligible for NRHP listing. Project-specific mitigation is also dependent on the result of consultation with consulting parties. As noted in 36 CFR 800.1(a), federal agencies must "seek ways to avoid, minimize, or mitigate any adverse effects on historic properties." Mitigation measures are applied when BMPs will not reduce or minimize impacts to a less than adverse effect. Mitigation may include data recovery or other agreed-upon measures. Consultation with the Alaska SHPO, the Advisory Council on Historic Preservation, and other consulting parties, is required when proposed actions are expected to adversely affect properties eligible for the NRHP and mitigation is required.	Both
Cult-7	Any cultural resource discovered by a user, permittee, or claimant or any person working on their behalf on public land will be immediately reported to the AO. The user, permittee or claimant or any person working on their behalf will suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the AO. An evaluation of the discovery will be made by the AO to determine appropriate actions to prevent the loss of significant cultural or scientific values. This may include the professional collection and analysis of significant specimens by scientists. After scientific study, appropriate mitigation measures will be developed and implemented.	Both
Cult-8	For oil and gas activities, cultural resource protection is covered under the standard lease terms.	Operations
Cult-9	Management practices will consider protection and conservation of known cultural resources, including historical sites, prehistoric sites, and plant and animal populations of significance.	Operations
Cult-10	For all BLM-issued permits, authorizations, or rights-of-way, the following stipulation will be included: Disturbance, damage, or removal of any archaeological or historical districts, sites, structures, or objects is prohibited by federal law. Any cultural resource (historic or prehistoric site or object) discovered by the Permittee, or any person working on their behalf, on BLM-managed lands shall be immediately reported to the Authorized Officer. The Permittee shall suspend all operations in the immediate area of such a discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the BLM Anchorage Field Office Archaeologist, or a BLM-permitted archaeologist, on behalf of the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The Permittee will be responsible for the cost of evaluation, and the Authorized Officer will make any decision as to proper mitigation measures after consulting with the Permittee, and other relevant consulting parties.	Both

Table B-8: Paleontological Resources

SOP / BMP Number	SOP / BMP	Construction or Operation
Paleo-1	Avoidance, through modification of the proposed undertaking, is the primary and preferred measure used to protect paleontological resources. This can be accomplished at the project planning stage supported by site assessments completed by qualified BLM or BLM-permitted paleontologists.	Both

SOP / BMP Number	SOP / BMP	Construction or Operation
Paleo-2	Monitoring—In situations where avoidance of adverse effects is not feasible, or there is a determination of no adverse effects to significant fossil remains, but the potential remains for there to be adverse effects through inadvertent discovery, a BLM-permitted paleontologist will monitor surface-disturbing activities. This determination will be made based upon the NEPA process and the Potential Fossil Yield Classification (PFYC) in the project area. The presence of the monitors is to ensure that previously unknown, significant paleontological resources are immediately identified and that construction activities in that area are halted to avoid further impacts to the resource. Before BLM authorization of the project, the project proponent submits a discovery plan outlining the way in which the resources will be treated and the responsibilities of the project proponent and its subsidiaries. A BLM paleontologist will review and approve the draft plan. In the case where monitoring results in a discovery situation, the discovery plan is implemented. Depending on the nature of the discovery, the project may be allowed to proceed or be redesigned. Recovery of fossil remains may also be required. The project proponent will be responsible for bearing the costs of monitoring, excavation, analysis, and curation in a federal repository, as appropriate.	Both
Paleo-3	Mitigation—The BLM will evaluate the impacts of proposed actions to known paleontological resources. Any significant paleontological resource discovered by a user, permittee, or claimant or any person working on their behalf on public land will be immediately reported to the AO. The user, permittee, or claimant or any person working on their behalf will suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the AO. An evaluation of the discovery will be made by the BLM Anchorage Field Office cultural resource program manager, or a BLM-permitted paleontologist, on behalf of the AO to determine appropriate actions to prevent the loss of significant cultural or scientific values. If damage to known significant paleontological resources cannot be avoided, the applicant (or the BLM for internal actions) will arrange at their expense for a qualified BLM or BLM-permitted paleontologists to perform scientific examination of the impacted significant paleontological resources followed by mitigation approved by the AO. This may include the professional collection, analysis, and curation of significant specimens by qualified paleontologists.	Both
Paleo-4	All BLM activities and BLM-authorized activities shall comply with the following laws and measures regarding the consideration of paleontological resources: <ul style="list-style-type: none"> • NEPA (1969) • FLPMA (1976) • Paleontological Resources Preservation Act (2009) • BLM IM 2016-124 PFYC • BLM IM 2009-001 Assessment and Mitigation • BLM Manual Section 8270 regarding paleontological resource • Applicable sections of BLM's regulations in Title 43 of the CFR • Any future implementing regulations for the Paleontological Resources Preservation Act 	Both
Paleo-5	BLM paleontologists and qualified, BLM-permitted paleontologists should be involved at all levels of survey, analysis, collection, and storage of paleontological resources.	Both
Paleo-6	A paleontologist must have a valid paleontological resource use permit, issued by the BLM Alaska State Office, before collecting or disturbing fossil resources on BLM-managed lands. To be eligible for a permit, the applicant must have received formal education and professional instruction in a field of paleontology equivalent to a graduate degree and meet other requirements as specified in the permit application.	Both
Paleo-7	All fossils and the appropriate associated notes that are collected under a paleontological resource use permit must be transferred to a publicly accessible, federal curation facility. All permittees must have an agreement with a repository before they will be considered eligible for a permit.	Both
Paleo-8	For all BLM-issued permits, authorizations, or rights-of-way, the following stipulation will be included: Disturbance, damage, or removal of any significant paleontological resource (vertebrate fossils, including mammoth and mastodon bones, tusks, trace fossils, etc.) is strictly prohibited. If paleontological resources are encountered then all material will be left in place and the AO will be notified immediately.	Both

Table B-9: Visual Resources Management

SOP / BMP Number	SOP / BMP	Construction or Operation
Visual-1	In panoramic landscapes, development will be located in the opposite direction from the primary scenic views, key observation points and located using natural or artificial screening, where feasible.	Construction
Visual-2	<p>The following considerations should be considered when choosing a project location:</p> <ul style="list-style-type: none"> • Visual contrasts or impacts decrease as the distance between the viewer and the proposed development increases, so projects should be located as far away from prominent viewing locations as possible. • The human eye is naturally drawn to prominent topographic features, so projects should not be located on or near such features. • The shape and placement of projects should be designed to blend with topographic forms and existing vegetation patterns. • Both topographic features and vegetation should be used to screen proposed development. 	Construction
Visual-3	<p>The following techniques to help reduce surface disturbance should be considered:</p> <ul style="list-style-type: none"> • Co-locating several projects within the same right-of-way • Placing underground utilities either along the edge or under the surface of an existing road • Placing several underground utilities within the same trench • Establishing limits of disturbance that reflect the minimum area required for construction • Consolidating development of a similar nature within a common structure • Planning projects so that they use existing infrastructure, whenever possible • Locating construction staging and administrative areas in less visually sensitive areas • Requiring restoration of disturbed areas no longer required after construction has been completed 	Construction
Visual-4	<p>The following should be taken into consideration when making color selections to minimize visual impacts:</p> <ul style="list-style-type: none"> • Natural surfaces are usually well textured and have shade and shadow effects that darken them; surfaces of structures are usually smooth and reflect light even if dull-finish paint is used; as a general rule, colors on smooth human-made structures need to be two or three shades darker than the background colors to compensate for the shadow patterns created by naturally textured surfaces that make colors appear darker. • The color for all structures should be selected to achieve the best blending with the surrounding landscape in both summer and winter. • Galvanized steel on utility structures should be darkened to prevent glare; low-luster paints should be used wherever possible to help reduce glare (although it is almost impossible to remove all sun glare). • Color (hue) is most effective within 1,000 feet; beyond that point, color becomes more difficult to distinguish, and tone or value determines visibility and resulting visual contrast. • Colors should be selected from a distance that permits viewing of the entire landscape surrounding the proposed development. • Colors that blend with or are in harmony with the existing colors of the earth, rocks, and vegetation are usually more visually pleasing and attract less attention than colors that are chosen to match the color of the sky. 	Construction

SOP / BMP Number	SOP / BMP	Construction or Operation
Visual-5	<p>The following techniques should be considered to minimize the visual impact from new structures placed on the existing landscape:</p> <ul style="list-style-type: none"> • Repeating form, line, color, and texture • Minimizing the number of structures and combining different activities in one structure wherever possible • Using earth-tone paints and stains and self-weathering metals • Chemically treating wood so that it can be allowed to self-weather • Using natural stone in wall surfaces • Burying all or part of the structure • Selecting paint finishes with low levels of reflectivity • Using rustic designs and native building materials • Using natural-appearing forms to complement landscape character • Screening the structure from view with natural landforms and vegetation 	Construction
Visual-6	<p>The following techniques should be considered to reduce the contrasts created by earthwork construction</p> <ul style="list-style-type: none"> • Fitting the proposed development to the existing landforms so as to minimize the size of cuts and fills will greatly reduce visual impacts from earthwork • Minimize cut and fill, and create cuts and fills that match existing lines, forms, and textures of surrounding landscapes to the extent practical • Hauling in or hauling out excessive earth cut or fill in sensitive viewing areas • Rounding or warping slopes (shaping cuts and fills to appear as natural forms) • Bending slopes to match existing landforms • Retaining rock formations, vegetation, and drainage, whenever possible • Blasting split-face rock (cutting rock areas so that the resulting rock forms are irregular in shape, as opposed to making uniform "highway" rock cuts) • Toning down freshly broken rock faces using asphalt emulsions and rock stains • Using retaining walls to reduce the amount and extent of earthwork • Retaining vegetation by using retaining walls, reducing surface disturbance, and protecting roots from damage during excavation • Avoiding soil types that will generate strong contrasts with the surrounding landscape when they are disturbed • Prohibiting dumping of excess earth/rock on downhill slopes 	Construction
Visual-7	<p>The following strategies should be considered to enhance any restoration or reclamation activity, consistent with applicable Visual Resource Management (VRM) objectives:</p> <ul style="list-style-type: none"> • Stripping, saving, and replacing topsoil (6-inch surface layer) on disturbed earth surfaces • Enhancing vegetation by mulching cleared areas, furrowing slopes, using planting holes on cut/fill slopes to retain water, choosing native plant species, fertilizing, mulching, and watering vegetation, replacing soil, brush, rocks, forest debris over disturbed earth surfaces when appropriate, thus allowing for natural regeneration rather than introducing an unnatural looking grass cover • Minimizing the number of structures and combining different activities in one structure wherever possible 	Construction

SOP / BMP Number	SOP / BMP	Construction or Operation
Visual-8	<p>The following should be considered for determining an alignment that reduces visual impacts:</p> <ul style="list-style-type: none"> Topography is a crucial element in alignment selection. Visually, it can be used to subordinate or hide human-made changes in the landscape. Projects located at breaks in topography or behind tree groupings are usually of much less visual impact than projects on steep side slopes. By taking advantage of natural topographic features, cut and fill slopes can be greatly minimized. Topographic breaks frequently exhibit a natural line element that the proposed alignments can repeat or blend with to strengthen the design. This line element is partly established by a visual shadow zone, which will further reduce the contrast of the project. Soils are especially important when selecting an alignment and should be analyzed for stability and fertility, and a revegetation program should be planned. Hydrological conditions can strongly affect the visual impact of buried and surface construction. The risks of surface and subsurface erosion within the corridor should be analyzed and evaluated. Crossings with other linear features or structures should be designed to minimize their visual impact, as follows: <ul style="list-style-type: none"> when possible, crossings should be made at right angles; structures should be set as far back from the crossing as possible; and in areas with tree and shrub cover, the rights-of-way and structures should be screened from the crossing area. Avoid fall-line cuts, bisection ridge tops, and valley bottoms. 	Construction
Visual-9	To the extent practicable, all facilities and activities will be located away from visually sensitive areas, rivers, trails, and other transportation features; using distance to reduce the facility's visual impact along travel corridors.	Both
Visual-10	All facilities and activities will be designed to meet the VRM class, using proper siting and location so that natural features of vegetation and landforms provide screening from travel corridors and other key observation points, and to blend with the natural surroundings.	Both
Visual-11	Where possible and consistent with applicable VRM objectives, facilities, and activities will be designed so their shapes, sizes, colors, and textures harmonize with the scale and character by repeating the elements of line, form, color and texture of the surrounding landscape to reduce visual contrast between the landscape and proposed activity or development.	Both
Visual-12	<p>The following vegetation management techniques to reduce visual impacts should be considered when vegetation removal is required for a project:</p> <ul style="list-style-type: none"> Retain as much of the vegetation as possible and where practical to use it to screen the development from public viewing areas. Design vegetation openings to repeat natural openings in the landscape; edges that are scalloped and irregular are more natural looking; straight line edges should be avoided Minimize the impact on existing vegetation by the following: <ul style="list-style-type: none"> Partially clearing the limits of construction rather than clearing the entire area (leaving islands of vegetation results in a more natural look) Using irregular clearing shapes Feathering and thinning the edges of the cleared areas to reduce strong lines of contrast; to create a more natural look along an edge, retain a good mix of tree/shrub species and sizes Disposing of all slash 	Both
Visual-13	<p>Maintain night sky and darkness through light management. Require use of shielded lights that direct the light downward to reduce light scatter at facilities and other areas that use lights. Use of "warmer" colored lights (3,000 degrees Kelvin) to reduce harsher "blue" spectrum light (5,000 degrees Kelvin).</p> <p>Include lighting management in facility BMPs and monitor to assess any negative impacts to residential and recreational users, wildlife, birds, and insects.</p>	Both

SOP / BMP Number	SOP / BMP	Construction or Operation
Visual-14	<p>Lighting:</p> <p>For certain permitted activities, as identified in pre-application consultation with the AO, the following may be applied:</p> <ul style="list-style-type: none"> A lighting plan should be prepared by the project proponent documenting how lighting will be designed and installed to minimize night-sky impacts and impacts on nocturnal wildlife during construction and operations. The lighting plan should specify the following: (1) Number of lights and lumen output of each—Minimum number of lights and the lowest luminosity consistent with safe and secure operation of the facility; (2) Alternatives to lighting—Retro-reflective or luminescent markers in lieu of permanent lighting where feasible; (3) Fixture design—Lights of the proper design, shielded to eliminate uplight, placed and directed to eliminate light spill and trespass to offsite locations; (4) Lamp color temperature—Lights of the proper color to minimize night-sky impacts; (5) SOPs—Minimization of unnecessary lighting use through alternatives to permanent lighting, such as restricting lighting usage to certain time periods; (6) Any activities that may be restricted to avoid night-sky impacts; and (7) A process for promptly addressing and mitigating complaints about potential lighting impacts. Where possible, use Aircraft Detection Lighting System Technology for Hazard Lighting on Structures Taller than 200 feet. Except as required to meet the minimum safety and security requirements (e.g., collision markers required by the Federal Aviation Administration, or other emergency lighting triggered by alarms), all permanent lighting should use full cutoff luminaires, which are fully shielded (i.e., not emitting direct or indirect light above an imaginary horizontal plane passing through the light source), and must meet the Illuminating Engineering Society glare requirement limiting intensity of light from the luminaire in the region between 80 degrees and 90 degrees from the ground. All fixtures must be mounted properly, at the proper angle. Construction and permanent lighting should be mounted and directed to focus light only on the intended area, and to avoid light spill and offsite light trespass. Lights pointing upward or horizontally should be avoided. When accurate color rendition is not required (e.g., roadway, basic security), lighting should be amber in color, using either low-pressure sodium lamps or yellow LED lighting, or an equivalent. When white light is required for accurate color rendition, it should be less than or equal to 3,500 degrees Kelvin color temperature (warm-white). Bluish-white lighting should not be used in permanent outdoor lighting. Consistent with safety requirements, lighting use should be minimized during construction and operations. 	Both

Section 3. Resource Uses

Table B-10: Forestry and Woodland Products

SOP / BMP Number	SOP / BMP	Construction or Operation
Forestry-1	Timber sale authorizations will require the proper site preparation and monitoring to ensure regeneration of timber stands.	Operations
Forestry-2	<p>Forest resources will be managed to ensure biodiversity, long-term productivity, and a wide spectrum of multiple uses, including scenic values, recreation, fish and wildlife habitat, watershed protection, and timber harvest.</p> <p>Wildlife, fisheries, plant conservation, fire and fuels objectives will be considered when planning forest product harvests.</p>	Operations
Forestry-3	Timber harvest and subsequent management of harvested lands will comply with the Alaska Forest Resources and Practices Act (Alaska Statute [AS] 41.17). When possible, natural regeneration through proper site preparation will be the preferred means of reforestation. When planting is necessary to meet reforestation objectives, native species compatible with the site potential will be used. When native species will not meet objectives, nonnative species may be used following site-specific NEPA analysis and AO approval.	Operations
Forestry-4	Machinery used in timber sales will be inspected for noxious weed seeds, especially if it is brought in from outside the local watershed.	Operations

SOP / BMP Number	SOP / BMP	Construction or Operation
Forestry-5	<p>Guidelines for Christmas Tree and Firewood Harvesting:</p> <ul style="list-style-type: none"> • Do not cut trees more than twice your needed height just for the top. • Do not damage adjacent trees. • When cutting down standing trees, cut the stump to 8 inches or less or as close to the ground as possible. • Scatter lopped branches at least 20 feet from the stump. • Use large stem portions for firewood. • Do not top a larger tree to obtain a Christmas tree. • Do not cut trees that have been posted as "WILDLIFE TREE DO NOT DISTURB." • Pack out your trash as well as trash left by others. 	Operations

SOP / BMP Number	SOP / BMP	Construction or Operation
Forestry-6	<p>Ground-based Commercial Harvesting:</p> <ul style="list-style-type: none"> • Exclude ground-based equipment on hydric soils, defined by the Natural Resource Conservation Service, unless soils are frozen. • Limit designated skid trails for thinning or regeneration harvesting to ≤15 percent of the harvest unit area to reduce displacement or compaction to acceptable limits. • Limit width of skid roads to single width of what is operationally necessary for the approved equipment. Where multiple machines are used, provide a minimum-sized pullout for passing. • Ensure leading-end of logs is suspended when skidding. • Restrict non-road, in-unit, ground-based equipment used for harvesting operations to periods of low soil moisture or frozen ground. Low soil moisture varies by texture and is based on site-specific considerations. Low soil moisture limits will be determined by qualified specialists using a qualitative method to determine an estimated soil moisture and soil texture. • Incorporate existing skid trails and landings as a priority over creating new trails where feasible, into a designated trail network for ground-based harvesting equipment, consider proper spacing, skid trail direction and location relative to terrain and stream channel features. • Limit non-specialized skidders or tracked equipment to slopes less than 35 percent, except when using previously constructed trails or accessing isolated ground-based harvest areas requiring short trails over steeper pitches. Also, limit the use of this equipment when surface displacement creates trenches, depressions, excessive removal of organic horizons, or when disturbance would channel water and sediment as overland flow. • Limit the use of specialized ground-based mechanized equipment (those machines specifically designed to operate on slopes greater than 35 percent) to slopes less than 50 percent, except when using previously constructed trails or accessing isolated ground-based harvesting areas requiring short trails over steeper pitches. Also, limit the use of this equipment when surface displacement creates trenches, depressions, excessive removal of organic horizons, or when disturbance would channel water and sediment as overland flow. • Designate skid trails in locations that channel water from the trail surface away from waterbodies, floodplains, and wetlands, or unstable areas adjacent to them. • Directionally fall trees to lead for skidding to minimize surface disturbance when moving logs to skid trails. • Apply erosion control measures to skid trails and other disturbed areas with potential for erosion and subsequent sediment delivery to waterbodies, floodplains, or wetlands. These practices may include seeding, mulching, water barring, tillage, and woody debris placement. • Construct water bars on skid trails where potential for soil erosion or delivery to waterbodies, floodplains, and wetlands exists. • Subsoil skid trails, landings, or temporary roads where needed to achieve 20 percent detrimental soil conditions, minimize surface runoff, improve soil structure, and water movement through the roadbed. • Block skid trails to prevent public motorized vehicle and other unauthorized use at the end of seasonal use. • Plan harvesting operations (cutting and transporting logs) when ground is frozen or adequate snow cover exists to prevent soil compaction and displacement. • Minimize the area where more than half of the depth of the organically enriched upper horizon (topsoil) is removed when conducting forest management operations. • Maintain the minimum percent of effective ground cover needed to control surface erosion following forest management operations. Ground cover may be provided by vegetation, slash, duff, medium to large gravels, cobbles, or biological crusts. 	Operations

SOP / BMP Number	SOP / BMP	Construction or Operation
Forestry-7	<p>Planting and Pre-commercial Thinning:</p> <ul style="list-style-type: none"> Limit the crossing of stream channels with motorized support vehicles (e.g., OHVs) and mechanized equipment to existing road crossings or temporary ford crossings to the approved instream work period. Scatter treatment debris on disturbed soils, and water-bar any equipment access trails that could erode and deposit sediment in waterbodies, floodplains, and wetlands. 	Operations

Table B-11: Locatable and Salable Minerals

SOP / BMP Number	SOP / BMP	Construction or Operation
LS-1	With the exception of necessary extraction operations, mining operations, and mineral development support facilities and infrastructure, including but not limited to roads, bunkhouses, offices, ore processing facilities, and equipment storage and maintenance facilities and other support operations, should be sited in upland areas.	Both
LS-2	Permanent or semi-permanent access routes, regardless of purpose, shall be routed and concentrated to minimize habitat fragmentation.	Both
LS-3	<p>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.</p> <p>Mineral material extraction from lakes, active floodplains, riparian zones, wetlands, deltas, and active or inactive stream or river channels should be avoided, if possible.</p> <p>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. Sales or permits for gravel extraction will not be permitted in known fish spawning or rearing areas.</p>	Operations
LS-4	Salable mining operations in floodplains shall establish and maintain suitable buffer zones to active streams.	Operations
LS-5	All mining operations that have the potential to impact streams, lakes, ponds, or other waterbodies or Riparian Areas should incorporate the practices and recommended designs identified in the Stormwater Pollution Prevention Plan that will address site runoff, stockpiles, tailings, acid drainage, and short- and long-term containment pond management, as applicable. All sites will incorporate site-specific BMPs that will be determined through the normal permitting process.	Operations
LS-6	Mine effluent, deleterious material, and mine runoff shall be controlled and prevented from unrestricted discharge into the surrounding watershed without permitted approval. All mining operations must control all mine contact water (to include process, pit dewatering, settling ponds, and milling operations) and discharge it as authorized in accordance with the approved water management plan and monitoring plan. Protocols for discharge reporting shall be followed.	Operations
LS-7	Where possible, braided or split stream types will be selected for salable material extraction. Meandering, sinuous, and straight stream channel types should be avoided.	Operations
LS-8	Generally, the largest river feasible should be selected for a salable operations in a given area. Larger rivers have higher volumes of gravel and a wider floodplain more forgiving to in-channel disturbance. The proportionately smaller disturbance in large river systems will reduce the overall effect of gravel removal.	Operations
LS-9	Mining salable gravel from active channels should generally be avoided to reduce detrimental effects on water quality, aquatic habitat, and biota.	Operations
LS-10	Public use cabins are not to be utilized to support plan- or notice-level mining.	Operations
LS-11	All mineral material extraction authorizations, permits, and sales shall include stipulations to prevent the introduction and/or spread of nonnative invasive plants and noxious weeds.	Operations
LS-12	<p>Existing access routes will be used where possible. Alternatives to and/or upgrading of existing access will be planned in consultation with the AO.</p> <p>When a quarry or rock pit is depleted or vacated, stabilize cutbanks, headwalls, and other surfaces to prevent surface erosion and landslides. Close roads, excavations, and crusher pads. Remove all potential pollutants to prevent their entry into wetlands, Riparian Areas, floodplains, and waters of the State.</p>	Operations

SOP / BMP Number	SOP / BMP	Construction or Operation
LS-13	Upon closure of mining operations, all tailings, dumps, mining improvements, deleterious materials and substances, contaminants, and hazardous and solid waste, including scrap steel, derelict mining machinery and parts will be disposed of in accordance with applicable federal and State laws and regulations.	Operations
LS-14	For all mining operations, a Hazardous Materials Emergency Contingency Plan shall be prepared and implemented before transportation, storage, or use of fuel or hazardous substances. The plan shall include a set of procedures to ensure prompt response, notification, and cleanup in the event of a hazardous substance spill or threat of a release. The plan shall include a list of resources available for response (e.g., heavy-equipment operators, spill-cleanup materials or companies), and names and phone numbers of federal and State contacts.	Operations
LS-15	Water quality of both surface and underground waters will be regulated by terms and conditions of the Alaska Pollutant Discharge Elimination System (APDES). Note that in the future, implementation of the APDES program regulating water quality of both surface and ground waters may be regulated by 18 AAC, Chapter 70 (Alaska Water Quality Standards) and 18 AAC, Chapter 83 for surface waters.	Operations

Table B-12: Leasable Minerals

SOP/ BMP Number	SOP / BMP	Construction or Operation
Leasable-1	<p>Well Pad and Facility Construction</p> <ul style="list-style-type: none"> • Ensure that every pad, access road, or facility site has an approved surface drainage plan. • Confine or direct drainage from disturbed areas so that erosion of undisturbed areas would not be increased. • Do not allow runoff water (including that from roads) to flow into intermittent or perennial waterways without first passing through a sediment-trapping mechanism. Erosion control structures may include water bars, berms, drainage ditches, sediment ponds, or devices. • Plan access road construction for exploratory wells such that a permanent road could later be constructed in the event of field development. • Avoid constructing access roads on steep hillsides and near watercourses where alternate routes provide adequate access. • Design access roads requiring construction with cut and fill to minimize surface disturbance; take into account the character of the landform, natural contours, cut material, depth of cut, resource concerns, visual contrast, and where the fill material will be deposited. • Do not cast fill material over hilltops or into drainages. Cut slope ratios should normally be no steeper than 3:1 and fill slopes no steeper than 2:1. • Use low water crossings whenever possible. • Ensure that well site layout takes into account the character of the topography and landform. Avoid deep vertical cuts and steep, long fill slopes. Construct all cut and fill slopes to the least percent slope practical. • Require trash to be retained in portable trash cages and hauled to an authorized disposal site for disposal. Prohibit burning on the well site. 	Construction
Leasable-2	Mining and oil and gas operations, facilities, and infrastructure will be designed and located to minimize a development's footprint.	Both
Leasable-3	<p>Objective: Minimize impact on the human environment.</p> <p>Stipulation: The operator will construct drill pads at least 500 feet and compressor stations at least 1,500 feet from occupied structures.</p> <p>Areas Where Stipulations Apply: Areas open to oil and gas leasing.</p> <p>Exception: The AO may grant an exception if the operator obtains the consent of the owner of the structure.</p> <p>Modification: None.</p> <p>Waiver: None.</p>	Both

SOP/ BMP Number	SOP / BMP	Construction or Operation
Leasable-4	<p>Objective: Protect, maintain, and preserve the condition and ecological function of the aquatic and riparian zones.</p> <p>Stipulation: The design and location of temporary or permanent oil and gas facilities within 300 feet of the following rivers will be prohibited: Kivalina, Ungalik, Shaktoolik, Inglutalik, Koyuk (including the East Fork), Tubutulik, Kuzitrin, Agiapuk, Pah, and Noatak River.</p> <p>Areas Where Stipulations Apply: Areas open to oil and gas leasing.</p> <p>Exception: The AO may grant an exception if the lessee can demonstrate that impacts to fish, water quality, and aquatic and riparian habitats are minimal, or there is no feasible or prudent alternative.</p> <p>Modification: None.</p> <p>Waiver: None.</p>	Both
Leasable-5	<p>Objective: Minimize soil erosion.</p> <p>Stipulation: Surface-disturbing proposals involving construction on slopes greater than 25 percent would include an approved erosion control strategy and topsoil segregation/restoration plan, be properly surveyed and designed by a registered engineer, and be approved by BLM prior to construction and maintenance.</p> <p>Areas Where Stipulations Apply: All slopes greater than 25 percent within the planning area.</p> <p>Exception: If after an environmental analysis, the AO determines that it would cause undue or unnecessary degradation to pursue other placement alternatives, occupancy in the NSO area may be authorized.</p> <p>Modification: May be granted if a more detailed analysis (Order I soil survey) finds that surface disturbance could occur without accelerated erosion.</p> <p>Waiver: None.</p>	Both
Leasable-6	<p>Goal: When authorizing leasable minerals actions, ensure that goals to protect other resource values in the planning area are met to the extent possible.</p> <p>Stipulation: Permittees must submit a plan for the surface reclamation or stabilization of all disturbed areas. Prior to final abandonment, land used for infrastructure—including but not limited to well pads, production facilities, access roads, and airstrips—shall be reclaimed to ensure eventual return of ecosystem function. The BLM may grant exceptions to satisfy stated environmental purposes or community needs.</p> <p>Areas Where Stipulations Apply: Areas open to mineral leasing.</p> <p>Exception: The AO determines that it is in the best interest of the public to retain some or all facilities.</p> <p>Modification: None.</p> <p>Waiver: None.</p>	Operations
Leasable-7	<p>Goal: When authorizing fluid leasable minerals actions, ensure that goals to protect other resource values in the planning area are met to the extent possible.</p> <p>Stipulation: Exploratory drilling will be limited to temporary facilities such as ice pads, ice roads, ice airstrips, and temporary platforms.</p> <p>Areas Where Stipulations Apply: Areas open to fluid mineral leasing.</p> <p>Exception: The AO may grant an exception if the lessee demonstrates that construction of permanent facilities such as gravel airstrips, storage pads, and connecting roads are environmentally preferable or that exploring from temporary facilities is not practical or economically feasible.</p> <p>Modification: None.</p> <p>Waiver: None.</p>	Operations
Leasable-8	Stockpiled soil and overburden will be spread over mine tailings and stabilized to minimize erosion. The shape of contoured tailing and overburden should approximate the shape of surrounding terrain.	Operations
Leasable-9	All mining/drilling operations shall include plans for surface water discharge (Stormwater Pollution Prevention Plans), acid drainage, tailings, and short- and long-term containment pond management.	Operations
Leasable-10	Settling ponds, retention/catchment basins, and post-drilling/production operations must be stabilized and secured prior to seasonal mine closures.	Operations

Table B-13: Lands and Realty

SOP / BMP Number	SOP / BMP	Construction or Operation
Lands-1	Snow ramps may be constructed at stream crossings to accommodate overland heavy equipment moves. Blading of stream or river banks, however, is not permitted. Any ramps that may cause stream blockages during break-up will be removed after crossings are completed.	Both
Lands-2	During an overland heavy equipment move, all motorized equipment shall travel under its own power or be towed on an appropriately sized sled. Broken-down equipment will be repaired on-site, whenever possible, and not towed unless the break down occurs while crossing a river, lake, or pond. Broken-down equipment could be towed out of a river, lake, or pond for emergency purposes to protect water quality from further damage.	Both
Lands-3	During an overland move, new trail segments will be routed to avoid heavy stands of tall shrub. The Field Office Forester will assist in determining the route to avoid heavy timber stands.	Both
Lands-4	Unless authorized, the general Rules of Conduct in 43 CFR 8365 shall apply to all BLM lands.	Both
Lands-5	The permittee will notify the AO when starting an overland move and when the move is completed.	Both
Lands-6	<p>Rights-of-way and other lands and realty authorizations would contain noxious and invasive plant management terms or stipulations for all surface-disturbing actions. Examples of these authorizations are power lines, pipelines, transmission corridors, energy development sites and related development, and gravel pits. This may require the following, as appropriate:</p> <ul style="list-style-type: none"> • Conduct a pre-disturbance noxious weed inventory. • Design to avoid or minimize vegetation removal and weed introduction or spread. • Manage weeds during the life of the right-of-way or authorization to prevent or minimize weed introduction or spread. • Require the right-of-way or authorization holder establish competitive vegetation on bare ground areas when the right-of-way is abandoned. • Monitor revegetation success and weed prevention and control for a reasonable number of years. • Require the authorization holder to pressure wash any equipment prior to bringing onto public lands. • Allow only the use of certified weed-free, or native seed, mixtures when revegetating an area. • Allow only the use of certified weed-free wattles, and other material used often required as part of the Stormwater Pollution Prevention Plan, or erosion control. <p>All authorizations would contain noxious and invasive plant management terms or stipulations to prevent the spread of noxious and invasive plants as a result of the authorized activities. During the term of an authorization, and for a reasonable amount of time after, and based upon field inspections conducted by the BLM, any introduction by the proponent of noxious and invasive plants would need a plan to remove and remediate the lands and be approved by the AO. Areas where known noxious and invasive plants occur will require an inventory to be conducted by the proponent prior to the authorization and approved by the AO. A plan to minimize further spread and/or removal of noxious and invasive plants will be required and approved by the AO prior to any authorization where known noxious and invasive plants occur. Areas where there are no known noxious and invasive plants may require an inventory to be conducted by the proponent and approved by the AO prior to authorization.</p>	Both
Lands-7	ROW Avoidance Areas are areas to be avoided but may be available for location of rights-of-way with special stipulations as long as new right-of-way application documentation demonstrates (1) the other locations researched and reasons each is not feasible, and; (2) project design features/mitigation measures are incorporated to minimize resource concerns. Decisions to grant a right-of-way within a ROW Avoidance Area would be made by the AO after project-specific NEPA has been completed.	Both

SOP / BMP Number	SOP / BMP	Construction or Operation
Lands-8	<p>The NSO stipulation is intended for use only when other stipulations are determined insufficient to adequately protect an identified resource value that may suffer long-term impacts based upon the surface occupancy. The land management plan/NEPA document prepared for the authorization must show that less restrictive stipulations were considered and determined by the AO to be insufficient, i.e., show why the NSO stipulation is needed. The resource value of concern must be identified and tied to a land management plan and/or NEPA document. The geographic extent of the identified resource values must be described and may be stated as:</p> <ul style="list-style-type: none"> • The "Entire Lease" • Distance from resources and facilities such as rivers, trails, campgrounds, etc. • Legal description • Geographic feature such as a 100-year floodplain • Municipal watershed, percent of slope, etc. • Special areas with identified boundaries; WSR, etc. • Other description that specifies the boundaries of the lands affected. <p>The estimated percent of the total lease area affected by the restriction must be given if no legal or geographic description of the location of the restriction is given. In other cases, the estimated percent is optional.</p> <p>Land management plans and/or NEPA documents should identify the specific conditions for providing waivers, exceptions, or modifications to lease stipulations. Waivers, exceptions, or modifications must be supported by appropriate environmental analysis and documentation are and subject to the same test used to initially justify the imposition of this stipulation. Language may be added to the NSO stipulation form to provide the lessee with information or circumstances under which waivers, exceptions, or modifications would be considered. A waiver, exception, or modification may be approved if the record shows that circumstances or relative resource values have changed or that the lessee can demonstrate that operations can be conducted without causing unacceptable impacts, and that less restrictive stipulations will protect the public interest. Waivers, exceptions or modifications can only be granted by the AO. If the waiver, exception, or modification is inconsistent with the land management planning document, that document must be amended or the change disallowed.</p>	Operations
Lands-9	A holder of a BLM right-of-way grant shall not allow any use of the right-of-way by another entity without the prior written authorization by the AO.	Operations
Lands-10	Prior to BLM's authorization of additional uses within a right-of-way, the AO will consult the holder of the right-of-way and determine whether the proposed additional use will interfere with the purposes for which the original right-of-way was granted.	Operations

Table B-14: Recreation and Visitor Services

SOP / BMP Number	SOP / BMP	Construction or Operation
Rec-1	Recreation and visitor services implementation strategies will be evaluated on an individual basis as part of activity and project-level planning. Such evaluations will consider the sensitivity and impacts on recreation and visitor services in the affected area. Stipulations will be attached as appropriate to ensure the compatibility of recreation and non-recreation projects with recreation and visitor services management objectives.	Both
Rec-2	Recreational use permits shall be issued in an equitable manner for specific recreational uses of BLM-managed lands and related waters as a means to manage visitor use; provide for visitor health, safety, and enjoyment; minimize adverse resource impacts; and provide for private and commercial recreational use according to limits or allocations established through the BLM's planning process.	Operations
Rec-3	Lands may be temporarily closed to other uses during recreation performed under a special recreation permit, such as special events along the INHT.	Operations

Table B-15: Travel and Transportation Management

SOP / BMP Number	SOP / BMP	Construction or Operation
TTM-1	Preconstruction: Use existing roads to the extent possible.	Construction
TTM-2	When developing travel management plans, minimize impacts through appropriate restrictions on cross-country OHV use. Monitor soils for impacts that may be caused by OHVs.	Both
TTM-3	Roads and trails are engineered, constructed, and maintained in a manner that minimizes the effect on landscape hydrology; concentration of overland water flow, subsurface water flows; minimizes erosion, and minimizes sediment transport.	Both
TTM-4	Avoid new road construction or trail development in floodplains, riparian zones, or wetlands as much as feasible. Establishment of permanent or semi-permanent access routes in or through floodplains, riparian zones, wetlands, or federal public lands is subject to constraints developed through project-specific NEPA analysis and/or application of the provisions of 43 CFR 3802.3-1, 3802.3-2(g), and 3802.42. Permanent or semi-permanent access routes, regardless of purpose, shall be routed and concentrated to minimize habitat fragmentation.	Both
TTM-5	Follow Federal Aviation Administration Advisory Circular No: 91-36D for voluntary practices in wildlife habitat: <ul style="list-style-type: none"> a. Avoid noise-sensitive areas, if practical; avoidance is preferable to overflight at relatively low altitudes. b. Pilots operating noise-producing aircraft (fixed-wing, rotary-wing, and hot air balloons) over noise-sensitive areas should make every effort to fly not less than 2,000 feet above ground level (AGL), weather permitting. For the purpose of this RMP, the ground level of noise-sensitive areas is defined to include the highest terrain within 2,000 feet AGL laterally of the route of flight, or the uppermost rim of a canyon or valley. The intent of the 2,000 feet AGL recommendation is to reduce potential interference with wildlife and complaints of noise disturbances caused by low-flying aircraft over noise-sensitive areas. c. Departure from or arrival to an airport, climb after take-off, and descent for landing should be made to avoid prolonged flight at low altitudes near noise-sensitive areas. d. This advisory does not apply where it would conflict with Federal Aviation Regulations, air traffic control clearances or instructions, or where an altitude of less than 2,000 feet AGL is considered necessary by a pilot to operate safely. 	Both
TTM-6	<ul style="list-style-type: none"> • Continue coordinating with counties and other agency road entities to promote use of BMPs for road maintenance they perform within planning area boundaries. • Maintain an inventory of existing road and trail systems. 	Both
TTM-7	<ul style="list-style-type: none"> • In order to ensure public access and safety, the BLM Anchorage Field Office will continue an active road maintenance program, using redesign, blading, brush removal for sight distance as appropriate, scarification, graveling, water barring, low water crossings, spur ditching, seeding, and culvert installation and cleaning. • No new NEPA analysis would be required for road maintenance within the defined maintenance disturbance/easement footprint, which is defined as previously disturbed or maintained. Disturbance outside of the defined maintenance disturbance/easement footprint or road realignment would be subject to additional NEPA compliance. 	Both
TTM-8	<ul style="list-style-type: none"> • Locate roads and landings to reduce total transportation system mileage. Renovate or improve existing roads or landings when it would cause less adverse environmental impact. Where roads traverse land in another ownership, investigate options for using those roads before constructing new roads. • Design roads to the minimum width needed for the intended use as referenced in BLM Manual 9113-1, Roads Design Handbook. 	Both
TTM-9	Airstrips: Casual use of fixed-wing aircraft use would be unrestricted and associated landing strips would be allowed with minimal clearing of rocks, downed logs, and brush. Construction of airstrips requires a land use authorization.	Both
TTM-10	Within defined Western Arctic Herd insect relief areas, aircraft associated with permitted activities will maintain an altitude of at least 2,000 feet AGL (except for takeoffs and landings) from June 20–August 15, unless doing so would endanger human life or violate safe flying practices.	Operations

SOP / BMP Number	SOP / BMP	Construction or Operation
TTM-11	<p>Exploration</p> <ul style="list-style-type: none"> Install temporary gates for use during the course of operations, unless fence is immediately repaired. On completion of operations, restore fences to at least original condition. Mitigate or suspend all activities off maintained roads that create excessive surface rutting during adverse conditions affecting soil moisture caused by such climatic factors as thawing, heavy rains, snow, flooding, or drought. Limit off-road vehicle travel to that necessary to complete the permitted operations. 	Operations

Table B-16: Renewable Energy

SOP / BMP Number	SOP / BMP	Construction or Operation
Renew-1	Prior to the development of renewable energy resources, conduct a thorough assessment of potentially affected resources, including visual, subsistence, wildlife, etc.	Construction
Renew-2	Prior to the development and utilization of natural energy resource development, a decommissioning and reclamation plan should be developed.	Construction
Renew-3	During the construction, maintenance, and operations, appropriate actions should be taken to minimize the project footprint and associated disturbances to visual, subsistence, wildlife, and other resources due to the utilization of renewable energy resources.	Both
Renew-4	For construction, operation, and decommissioning of renewable energy resource development, procedures should be developed to ensure the project site and adjacent lands and areas be kept clean of debris, garbage, and other waste generated on-site.	Both

Section 4. Special Designations

Table B-17: National Trails

SOP/ BMP Number	SOP / BMP	Construction or Operation
INHT-1	<p>To eliminate, minimize, or limit the spread of noxious and nonnative invasive plants, only feed and mulch (hay cubes, hay pellets, or straw, for example) certified as weed-free through the Alaska Weed-Free Forage certification program (or other programs with approval of the AO) will be authorized on BLM lands. Where Alaska certified sources are not available, locally produced forage and mulch may be used with approval from the AO. If no certified weed-free or local sources are available, other products may be used with the approval of the AO. Additionally, certified weed-free feed will be required to be fed to the animal 24 hours prior to coming onto public lands to prevent the spread of invasive plants through the animal's excrement.</p> <p>Through educational materials and permit stipulations, develop a land ethic leading to the use of certified weed-free products (hay, straw, bedding, feed) on and before visiting BLM lands. Persons using products other than certified weed free will place a temporary barrier between the ground and the product to prevent the spread of noxious weeds. All product remnants must be removed and discarded away from public lands.</p>	Operations

Table B-18: Wild and Scenic Rivers

SOP / BMP Number	SOP / BMP	Construction or Operation
WSR-1	For commercial timber sales and personal use timber permits, the requirement for a buffer will be considered to prevent disturbance of priority fish species habitat, sedimentation into streams, impairment of visual resource qualities, or to protect outstandingly remarkable values of WSRs. Buffer widths will be determined through the normal permitting process.	Operations

Section 5. Social and Economic Conditions

Table B-19: Support for BSWI Communities

SOP / BMP Number	SOP / BMP	Construction or Operation
Socioecon-1	Public Participation <ul style="list-style-type: none"> Resolve problems and implement decisions in collaboration with other agencies, State, municipalities, Native corporations, and the public. Ensure the BLM land users and stakeholders have a meaningful voice in establishing policy and managing BLM land in Alaska. Provide the general public with culturally appropriate, meaningful opportunities to participate in and influence the process of decision making affecting BLM-managed land in Alaska. To the extent practical and warranted by local conditions, hold public meetings in the Alaskan community or communities most impacted by proposed decisions affecting BLM land. When setting deadlines for public participation, recognize and provide for the extra time it takes mail to reach people in rural Alaska. The seasonality of subsistence dependent communities and the land users will also be considered. 	Both
Socioecon-2	Government, Organization, and Community Participation <ul style="list-style-type: none"> Provide local governments, State and federal agencies, Native corporations, and other private landowners and interest groups with meaningful opportunities to participate in and influence the process of decision making affecting BLM-managed land in Alaska. Consistent with the national policy regarding government-to-government consultation and relationships with tribes, consult as early in the agency's decision-making process as possible, to the greatest extent practicable and to the maximum extent permitted by law, with Federally Recognized Tribes in Alaska prior to taking action or undertaking activities that affect Federally Recognized Tribes, their assets, rights, services, or programs. The BLM actions shall favor maximum participation of Federally Recognized Tribes in Alaska with a goal of informed decision making through consultation and collaboration. Notify the manager of the appropriate federal conservation system unit of any proposed activity or use that may affect the unit. An opportunity for comment will also be offered. Work collaboratively to monitor effectiveness of participation and other actions contained in the "Support for BSWI Communities" theme as needed. 	Both
Socioecon-3	Coordinate, cooperate, and consult with federal, tribal, State, and local agencies, private landowners, and stakeholder organizations in order to foster a unified, science-based adaptive management approach to wetland-floodplain and all land management in a watershed/ecosystem context.	Both
Socioecon-4	Promote stewardship, conservation, and appreciation of wetland-floodplains and all lands through educational and outreach programs.	Both

Table B-20: Subsistence

SOP / BMP Number	SOP / BMP	Construction or Operation
Sub-1	<p>For externally generated actions, BLM will consider using the following actions to eliminate, minimize, or limit the effects of permitted activities on subsistence use:</p> <ol style="list-style-type: none"> BLM may recommend modifications to a proposed activity. Permittees may be required to provide information to potentially affected subsistence communities regarding the timing, siting, and scope of the proposed activity. Permittees may be required to consult with potentially affected subsistence communities regarding ways to minimize impacts to subsistence. (The ANILCA 810 Analysis can only be conducted by the federal agency, not by the project proponent.) 	Both

Table B-21: Hazardous Materials and Health and Human Safety

SOP / BMP Number	SOP / BMP	Construction or Operation
Solid Waste		
Hazmat-1	Areas of activities will be left clean of all debris to minimize environmental contamination from solid waste.	Both
Hazmat-2	All solid wastes, including incinerated ash, will be removed by the permittee from public lands and disposed of within an Alaska Department of Environmental Conservation (ADEC) approved facility, unless otherwise specified. Solid waste combustibles may be incinerated in a contained and controlled manner; however, burn restrictions may apply during high-risk wildland fire seasons. Burial of solid waste is not authorized on public lands. Burning of trash, litter, trees, brush or other vegetative material must be approved by the AO.	Both
Wastewater / Sanitation		
Hazmat-3	Wastewater should be managed in accordance with 18 AAC 72, Wastewater disposal. Wastewater can be defined as human wastes (sewage) and gray water (wastewater from a laundry, kitchen, sink, shower, bath or other domestic sources). Pit privies are authorized in accordance with 18 AAC 72.020(b)(c)(i), 72.030, and all applicable updates and must be at least 100 feet away from any waterbody. If these standards cannot be met, then special authorization may be given by the AO. Gray water may not be released in any waterbody without authorization under the APDES. Gray water may be filtered and released to the surface so as not to cause erosion, and the gray water released must maintain compliance with the ADEC's guidance.	Both
Hazmat-4	Sanitation efforts including the disposal of gray water and kitchen wastes will be approved by the AO in accordance with the ADEC General Mine Permit or plan specifically developed in consultation with that agency.	Both
Spill Prevention and Response		
Hazmat-5	All hazardous materials and petroleum, oil, and lubricants (POLs) will be stored in containers that are compatible to the material being stored. Containers will be labeled with the responsible party's name, and contents of the container.	Both
Hazmat-6	Storage of POLs at any site will require secondary containment. The containment area must be constructed to hold at least 110 percent of the largest container, lined with an impermeable liner that is free of cracks or gaps, compatible with the contents stored, and sufficiently impervious to contain leaks, or spills. The containment area must be covered to eliminate the collection of rainwater within the containment area.	Both
Hazmat-7	All hazardous materials/toxic substances must be disposed of in accordance with U.S. Environmental Protection Agency and ADEC regulations at the time of disposal.	Both
Hazmat-8	Equipment maintenance by the responsible party may be allowed if it is necessary to operate equipment as described in the authorization. Equipment maintenance that has the potential to release fluids should be completed over an impermeable liner to ensure fluid migration to the environment does not occur.	Both
Hazmat-9	A Spill Prevention Plan will be written and implemented for all sites that have the potential to store 1,320 gallons or more of POLs in 55-gallon drums and larger containers. Spill Prevention Plans will follow the requirements in 40 CFR 112 and State regulations.	Both
Hazmat-10	All spills will be contained and cleaned up in accordance with ADEC guidance as soon as the release has been identified, unless health and safety of personnel is at risk. ADEC discharge notifications and reporting requirements are outlined in AS 46.03.755 and 18 AAC 75 Article 3. The release of POLs to any waterbody must be immediately reported to ADEC, as soon as the person has knowledge of the release. The responsible party will contact the AO no later than 24 hours after a spill on public lands. Notifying the U.S. Environmental Protection Agency may be required for discharges of oil, as required by 40 CFR 112.4.	Both
Hazmat-11	Application of pesticides and other toxicants will occur in a manner that does not prevent or retard attainment of desired conditions or adversely impacts priority aquatic species.	Both
Hazmat-12	Transfer of POLs to equipment will be completed in a secure manner to minimize the possibility of contamination to the surrounding environment. At a minimum, POL-type absorbent pads will be placed under the transfer location to catch overflow or assist the operator in containing a spill.	Both
Hazmat-13	With the exception of watercraft or aircraft, no vehicles or motorized equipment shall be left unattended within the 100-year floodplain or below the ordinary high water mark of any river or stream.	Both

SOP / BMP Number	SOP / BMP	Construction or Operation
Hazmat-14	Human use will be managed to achieve and maintain water quality standards and to avoid management problems and water quality impacts. Specific management practices will include public education and construction of toilet facilities where appropriate.	Both
Hazmat-15	No fuel barrels, waste oil, garbage, or equipment are to be abandoned along any trails or on federal public lands.	Both
Hazmat-16	Hazardous and other regulated wastes shall be properly managed by the generator as required by all applicable federal and State laws and regulations.	Both
Hazmat-17	Transportation of POLs will be handled in a safe manner to avoid impacts to the environment and human health.	Both
Hazmat-18	Use of pesticides will comply with applicable federal and State laws. Pesticides will be used only in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. Prior to the use of pesticides, the authorized user or permittee will obtain from the AO written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the AO. The plan should be submitted no later than December 1 of any calendar year to cover the proposed activities for the next fiscal year. Emergency use of pesticides will be approved in writing by the AO prior to such use. Pesticide use is subject to case-specific NEPA analysis.	Both
Hazmat-19	Hazardous substances used for exploration or mining will be contained and backhauled for disposal at a proper facility for that material. Used petroleum products may be converted on-site or contained and backhauled for proper disposal. The storage of fuels and petroleum products will be in a location approved by the AO in accordance with ADEC permit requirements.	Operations
Hazmat-20	Before using biological controls, ensure that they are tested on a variety of species, including taxonomically close relatives. Disclose impacts from use of biological controls, and develop appropriate mitigation measures to reduce adverse effects.	Operations
Hazmat-21	During any exploration activities, locate powder magazines at least a mile from traveled roads, unless otherwise authorized after analysis or review. Require loaded shot holes and charges to be attended at all times. Require all trash, flagging, and lath to be removed and hauled to an authorized disposal site. Do not allow oil or lubricants to be drained onto the ground surface. Require the undersides of all heavy equipment to be washed before being driven onto public lands, and discourage driving through or parking on noxious weed infestations.	Operations

Section 6. References Cited

DOI (U.S. Department of the Interior) Bureau of Land Management, U.S. Department of Agriculture Forest Service, National Park Service, and U.S. Fish and Wildlife Service. 2018. Interagency Standards for Fire and Fire Aviation Operations, NFES 2724.

USDA (U.S. Department of Agriculture Forest Service), U.S. Department of the Interior Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, and Bureau of Indian Affairs. 2006. Interagency Burned Area Emergency Response Guidebook. Interpretation of Department of the Interior 620 DM 3 and USDA Forest Service Manual 2523 for the Emergency Stabilization of Federal and Tribal Trust Lands, Version 4.0. February 2006. Available at:
<https://www.nps.gov/archeology/npsGuide/fire/docs/18%20Interagency%20BAER%20Handbook.pdf>

USFWS (U.S. Fish and Wildlife Service). 2000. Service Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers. Available at:
https://www.fws.gov/habitatconservation/com_tow_guidelines.pdf

USFWS (U.S. Fish and Wildlife Service). 2020. Culvert Design Guidelines for Ecological Function. Revision 5. Alaska Fish Passage Program. February 5.

Appendix C: Management Regulations, Policy, and Program Guidance

Appendix C. Management Regulations, Policy, and Program Guidance

Section 1. Introduction

Federal and State of Alaska legislation along with Bureau of Land Management (BLM)-specific policies could influence decisions, constrain alternatives, or affect implementation of the Approved Resource Management Plan (RMP). This appendix includes management regulations that were used to develop the Bering Sea–Western Interior (BSWI) Approved RMP, including regulations related to locatable, leasable, and salable minerals; federal guidance (Executive Orders); and federal and state laws. Selected provisions of the Alaska National Interest Lands Conservation Act (ANILCA) are provided at the end of the appendix and include those related to access, temporary facilities and equipment related to the take of fish and wildlife, cabins, navigation aids, and subsistence management and use findings.

Also included in this appendix is a list of BLM policy and program guidance, such as instruction memorandums (IMs), handbooks, manuals, and secretarial orders that were used to develop the RMP and would influence subsequent implementation-level projects and planning conducted under the Approved RMP. The list of management regulations and BLM policies and program guidance in this appendix is not intended to be comprehensive but rather provide an indication of the key laws and regulations that govern resource management in the planning area. While some BLM IMs have expiration dates, the IMs listed in this appendix were current during the development of the RMP and are subject to future changes or deletion.

Section 2. Management Regulations

1.1 Locatable, Leasable, and Salable Mineral Development

- 43 Code of Federal Regulations (CFR) 2800, 3100, 3200, 3500, 3600, 3700, 3800
- Alaska Surface Coal Mining Control and Reclamation Act of 1983
- Domestic Minerals Program Extension Act of 1953
- Energy Policy Act of 2005
- Federal Coal Leasing Amendments Act of 1976 (amendment to the Mineral Leasing Act)
- General Mining Law of 1872
- Geothermal Act of 1970
- Information Bulletin 2008-017 – BLM Energy and Mineral Policy
- Materials Act of July 31, 1947
- Mineral Leasing Act for Acquired Lands of 1947
- Mineral Leasing Act of 1920
- Mining and Minerals Policy Act of 1970
- Multiple Surface Use Act of 1955
- National Materials and Minerals Policy, Research and Development Act of 1980

- Surface Mining Control and Reclamation Act of 1977

1.2 Federal Guidance

- Executive Order 11593 – Protection and Enhancement of the Cultural Environment (May 1971)
- Executive Order 11644 – Use of Off-Road Vehicles on the Public Lands (February 1972)
- Executive Order 11988 – Floodplain Management (May 1977)
- Executive Order 11989 – Off-Road Vehicles on Public Lands (May 1977)
- Executive Order 11990 – Protection of Wetlands (May 1977)
- Executive Order 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 1994)
- Executive Order 13007 – Indian Sacred Sites (May 1996)
- Executive Order 13112 - Invasive Species (February 1993)
- Executive Order 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds (January 2001)
- Executive Order 13195 – Trails for America in the 21st Century (January 2001)
- Executive Order 13287 – Preserve America (March 2003)
- Executive Order 13751 – Safeguarding the Nation from the Impacts of Invasive Species (December 2016)
- Executive Order 13855 – Promoting Active Management of America’s Forests, Rangelands, and Other Federal Lands to Improve Conditions and Reduce Wildfire Risk (December 2018)

1.3 Federal Laws

- 1927 Alaska Livestock Grazing Act (43 CFR 4200)
- 1937 Reindeer Industry Act (43 CFR 4300)
- Agriculture Act of 2014, Section 8205 (16 United States Code [U.S.C.] 6591)
- Airport and Airway Improvement Act of September 3, 1982 (43 CFR 2640 & 43 CFR 2911)
- Alaska Land Transfer Acceleration Act of 2004 (Public Law [PL] 108-452)
- Alaska Native Veterans Land Allotment Equity Act of 2002
- Alaska Sustainable Energy Act (Senate Bill 220)
- American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996)
- Antiquities Act of 1906 (16 U.S.C. 431 et seq.)
- Archaeological and Historic Preservation Action of 1974, which amends the Reservoir Salvage Act of 1960 (PL 86523; PL 93291; 16 U.S.C 469 et seq.)

- Archaeological Resources Protection Act of 1979, as amended (16 U.S.C. 470)
- Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. 668-688c)
- Clean Water Act of 1972, Sections 402 and 404 (33 U.S.C. 1251 et seq.)
- Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. & (33) 9601(14) & (33))
- Curation of Federally Owned and Administered Archaeological Collections (36 CFR 79)
- Department of Interior Appropriations Act of 1976 (PL 94-165)
- Endangered Species Act of 1973 (as amended) (16 U.S.C. 1531-1544)
- Federal Cave Resources Protection Act of 1988 (43 CFR 37)
- Federal Clean Air Act of 1970/1977 and Clean Air Act Amendments of 1990 (42 U.S.C. 7401 et seq.)
- Federal Land Assistance, Management, and Enhancement Act of 2009
- Federal Land Management Policy Act of 1976 (43 U.S.C. 35)
- Federal Subsistence Hunting Regulations (36 CFR 242)
- Fish and Wildlife Conservation Act of 1980 (16 U.S.C. 2901-2911)
- Fish and Wildlife Coordination Act of 1934 (16 U.S.C. 661-666c)
- Healthy Forest Restoration Act of 2003 (PL 108-148)
- Historic Sites Act of 1935 (16 U.S.C. 461-467)
- John D. Dingell, Jr. Conservation, Management, and Recreation Act of 2019 (PL 116-9)
- Land and Water Conservation Fund Act of 1965 (16 U.S.C. 4601-4 through 4601-11)
- Leases, Permits, and Easements (43 CFR 2920)
- Magnuson-Stevens Fishery Conservation and Management Act of 1976 (PL 94-265)
- Migratory Bird Treaty Act of 1918 (as amended) (16 U.S.C. 703-712)
- National Historic Preservation Act of 1966 (as amended) (16 U.S.C. 470 et seq.)
- National Trails System Act (PL 90-543) as amended by the National Parks and Recreation Act (PL 96-625)
- National Trails System Act of 1968 (as amended) (16 U.S.C. 1241-1251)
- Native Allotment Act of 1906 (PL 59-171)
- Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 12411249)
- Off-Road Vehicles (43 CFR 8340)
- Omnibus Public Land Management Act of 2009 (PL 111-11)

- Paleontological Resources Preservation Act (16 U.S.C. 470)
- Protection Act of September 20, 1922 (16 U.S.C. 594)
- Provisions for Interim Administration (43 CFR 2650.1)
- Recreation and Public Purposes Act (43 CFR 2912 & 43 CFR 2741)
- Resource Conservation and Recovery Act of 1976 (40 CFR 239-282)
- Special Recreation Permits for Commercial Use, Competitive Events, Organized Groups, and Recreation Use in Special Areas (43 CFR 2932)
- Spill Prevention, Control, and Countermeasure Rule (40 CFR 112)
- Toxic Substance Control Act of 1976 (15 U.S.C. 53)
- Transportation and Utility Systems In and Across, and Access Into, Conservation System Units in Alaska (43 CFR 36)
- Visitor Services (43 CFR 8360-8365)
- Wild and Scenic Rivers Act (16 U.S.C. 1271-1287)
- Yukon River Salmon Act of 2000 (16 U.S.C. 5727)

1.4 State Laws

- Alaska Administrative Code (AAC) Title 11 – Natural Resources
- AAC Title 18, Chapter 50 (18 AAC 50) Air Quality Control; 18 AAC 52, Emissions Inspection and Maintenance Requirements for Motor Vehicles; 18 AAC 53, Fuel Requirements for Motor Vehicles; and 18 AAC 70, Surface Water Quality Standards
- Alaska Statute (AS) Title 16 Fish and Game Law
- Alaska Forestry Resources and Practices Act (AS 41.17)
- Alaska Historic Preservation Act (AS 41.35.010–41.35.240)
- Anadromous Fish Act (AS 16.05.871)
- Fishway Act (AS 16.05.841)
- State of Alaska regulations regarding importing, possessing, transporting, or releasing fish and animals into wild Alaska (AS 03.015.010; AS 03.05.027; AS 44.37.030; AS 03.05.090, 11 AAC 34.130; 11 AAC 34.140; 11 AAC 34.160; 11 AAC 34.170; AAC 34.115)
- Subsistence Use and Allocation of Fish and Game (AS 16.05.258)

Section 3. BLM Policy and Program Guidance for Implementation-Level Planning and Projects

Subsequent implementation-level projects and planning conducted under the Approved RMP will be subject to the following policy and program guidance:

- A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy (August 2001)
- A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Strategy Implementation Plan (December 2006)
- Alaska Enhanced Smoke Management Plan for Planned Fire, Procedures Manual Alaska Department of Environmental Conservation (June 2015)
- Avian Protection Plan Guidelines (April 2005)
- BLM IM-AK-2007-037 – Alaska Native Claims Settlement Act 17(b) Easement Management Handbook
- BLM IM-AK-2009-141 – Guidance on the BLM Fisheries Program and the National Fish Habitat Action Plan
- BLM IM-AK-2011-001 – State Invasive Weed Policy
- BLM IM-AK-2012-012 – Special Conditions for Subsistence Wood Permits (Form 5510-1)
- BLM IM-AK-2016-124 – Potential Fossil Yield Classification (PFYC) System for Paleontological Resources on Public Lands
- BLM IM-AK-2017-078 – Instructions for Implementing the Final Programmatic Environmental Impact Statement Using Aminopyralid, Fluroxypyr, and Rimsulfuron on the Bureau of Land Management Lands in 17 Western States
- BLM-IM-AK-2019-001 – BLM Alaska Updated Special Status Species List – 2019
- BLM IM-AK-2019-010 – Stream Reclamation Approval Process
- BLM IM-AK-2019-011 – Revegetation for Reclamation Approval Process
- BLM IM-AK-2019-013 – Alaska Reindeer Program Policy
- BLM Handbook H-1601-1 – Land Use Planning Handbook, Appendix D: Social Science Considerations in Land Use Planning Decisions (2005)
- BLM Handbook H-1703-1 – Comprehensive Environmental Response, Compensation, and Liability Act Responses Actions Handbook (July 2001)
- BLM Handbook H-1740-2 – Integrated Vegetation Management (March 2008)
- BLM Handbook H-1742-1 – Burned Area Emergency Stabilization and Rehabilitation (February 2007)
- BLM Handbook H-2930-1 – Recreation Permit Administration (November 2014)
- BLM Handbook H-3070-2 – Economic Evaluation of Oil and Gas Properties (no date)
- BLM Handbook H-3073-1 – Coal Evaluation (October 2014)
- BLM Handbook H-3100-1 – Oil and Gas Leasing Handbook (September 1985)
- BLM Handbook H-3101-1 – Issuance of Leases (November 1985)

- BLM Handbook H-3150-1 – Onshore Oil and Gas Geophysical Exploration Surface Management Requirements (June 1994)
- BLM Handbook H-3203-1 – Leasing Terms (no date)
- BLM Handbook H-3468 – Coal Inspection and Enforcement (August 2014)
- BLM Handbook H-3600-1 – Mineral Materials Disposal Handbook (September 2016)
- BLM Handbook H-3809-1 – Surface Management (September 2012)
- BLM Handbook H-3830-1 – Administration of Mining Claims, Mill Sites, and Tunnel Sites (October 2015)
- BLM Handbook H-3890-3 – Validity Mineral Reports (October 2003)
- BLM Handbook H-5400 Series – Sale of Forest Products
- BLM Handbook H-8320-1 – Planning for Recreation and Visitor Services (August 2014)
- BLM Handbook H-8342 – Travel and Transportation (March 2012)
- BLM Handbook H-8410-1 – Visual Resource Inventory (January 1986)
- BLM Handbook H-8431-1 – Visual Resource Contrast Rating (January 1986)
- BLM Handbook H-9211-1 – Fire Planning Handbook (September 2012)
- BLM Manual 1601 – Land Use Planning (November 2000)
- BLM Manual 1613 – Areas of Critical Environmental Concern (September 1988)
- BLM Manual 1626 – Travel and Transportation (July 2011)
- BLM Manual 1730 – Management of Domestic Sheep and Goats to Sustain Wild Sheep (March 2016)
- BLM Manual 1740 – Renewable Resource Improvements and Treatments (February 2008)
- BLM Manual 1794 – Draft Regional Mitigation Strategy Manual (2013)
- BLM Manual 2920 – Alaska State Office Supplement (November 1987)
- BLM Manual 2930 – Recreation Permits and Fees (October 2007)
- BLM Manual 5000 Series – Forest Management
- BLM Manual 6250 – National Scenic and Historic Trail Administration (2012)
- BLM Manual 6280 – Management of National Scenic and Historic Trails Under Study or Recommended as Suitable for Congressional Designation (September 2012)
- BLM Manual 6310 – Conducting Wilderness Characteristics Inventory on BLM Lands (March 2012)
- BLM Manual 6320 – Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process (March 2012)

- BLM Manual 6400 – Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management (July 2012)
- BLM Manual 6500 – Wildlife and Fisheries Management (June 1988)
- BLM Manual 6600 – Fish, Wildlife, & Special Status Plant Resources Inventory & Monitoring (August 1990)
- BLM Manual 6720 – Aquatic Resource Management (March 1991)
- BLM Manual 6840 – Special Status Species Management (December 2008)
- BLM Manual 7000 Series – Soil, Water, and Air Management
- BLM Manual 8100 – Cultural Resource Management (December 2004)
- BLM Manual 8270 – Paleontological Resource Management (July 1998)
- BLM Manual 8320 – Planning for Recreation and Visitor Services (March 2011)
- BLM Manual 8353 – Trail Management Areas – Secretarially Designated National Recreation, Water and Connecting and Side Trails (September 2012)
- BLM Manual 8400 Series – Visual Resource Management
- BLM Manual 9100 – Facilities Planning, Design, Construction and Maintenance (June 2008)
- Dust Control Field Guide for Gravel Driving Surfaces, Alaska Department of Transportation (2015)
- Guidance for Implementation of Federal Wildland Fire Management Policy (2009)
- Healthy Forest Initiative (Ongoing)
- Information Bulletin 2010-110 – Memorandum of Understanding Between the Bureau of Land Management and the U.S. Fish and Wildlife Service to Promote the Conservation of Migratory Birds
- Information Bulletin 2020-010 – Implementation of Secretarial Order 3373: Evaluating Public Access in Bureau of Land Management Public Land Disposals and Exchanges
- National Fire Plan: Federal Wildland Fire Management Policy (1995)
- National Fire Plan: Review and Update of the 1995 Federal Wildland Fire Management Policy (2001)
- National Programmatic Agreement with the Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers (2012)
- Protecting People and Natural Resources: A Cohesive Fuels Treatment Strategy (2006)
- Protocol for Managing Cultural Resources on Lands Administered by the Bureau of Land Management in Alaska (2014)
- Record of Decision Final Vegetation Treatments Using Herbicides Programmatic Environmental Impact Statement (2007)

- Riparian Area Management – Management Techniques in Riparian Areas (1992)
- Secretarial Order 3308 – Management of the National Landscape Conservation System (November 2010)
- Secretarial Order 3310 – Protecting Wilderness Characteristics on Lands Managed by the Bureau of Land Management (December 2010)
- Secretarial Order 3319 – Establishment of a National Water Trails System (February 2012)
- Secretarial Order 3366 – Increasing Recreational Opportunities on Lands and Waters Managed by the U.S. Department of the Interior (April 2018)
- Secretarial Order 3372 – Reducing Wildfire Risks on Department of the Interior Land Through Active Management (January 2019)
- Secretarial Order 3373 – Evaluating Public Access in Bureau of Land Management Public Land Disposals and Exchanges (March 2019)
- Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006 (2006)
- Wetland Riparian Initiative (1990)

Section 4. Select Provisions from the Alaska National Interest Lands Conservation Act (ANILCA)

Access Authorized under ANILCA

ANILCA authorizes specific methods of access for subsistence use and traditional activities:

- The use of snowmobiles, motorboats and other means of surface transportation traditional used for subsistence purposes by local residents on all federally managed public lands (Section 811(b)).
- The use of snowmachines, motorboats, airplanes and non-motorized surface transportation methods for traditional activities on conservation system units, national recreation areas, and national conservation areas (Section 1110(a)).

ANILCA authorized access is subject to “reasonable regulation.” To comply with ANILCA, should travel management planning decisions restrict or close any of these methods of access, BLM will initiate a supplemental regulatory process following issuance of the final decision document (Record of Decision for Environmental Impact Statements and Finding of No Significant Impact for Environmental Assessments). This regulatory process will be followed for both proposed interim and proposed final travel management decisions, which includes public notice, hearings in the affected vicinities, and an opportunity for public comment.

Access to State and Private Inholdings

ANILCA Section 1110(b) grants “rights as may be necessary to assure adequate and feasible access for economic and other purposes” to state and private inholdings, including subsurface rights, valid mining claims, or other valid occupancy, within or effectively surrounded by conservation system units.

Department of Interior implementing regulations at 43 CFR 36.10 identify procedures for providing such access not otherwise provided by ANILCA Title XI.

ANILCA Section 1323(b) grants access to nonfederally owned land surrounded by public land managed by BLM 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.

ANILCA Title XI – Transportation and Utility Systems in and Across, and Access into Conservation System Units

Congress found that Alaska’s transportation and utility network was largely undeveloped and the future needs for transportation and utility systems in Alaska would best be identified and provided for through an orderly, continuous decision-making process involving the State and Federal Governments and the public (ANILCA Section 1101(a)). If any portion of a proposed transportation and utility route or system identified in ANILCA Section 1102(4)(B) would be located within a conservation system unit, the application for the proposed project is subject to the applicable provisions in ANILCA Title XI and Department of Interior regulations at 43 CFR 36.

Temporary Facilities and Equipment for the Take of Fish and Wildlife

Existing and future establishment of temporary facilities and equipment related to the take of fish and wildlife are allowed on all federally managed public lands where the taking of fish and wildlife is permitted and must be constructed, used and maintained in the manner described in ANILCA Section 1316(a).

Existing and New Cabins

Cabins are allowed within conservation system units as provided in ANILCA Sections 1303 and 1315. In designated wilderness, previously existing public use cabins are allowed to continue and may be maintained and replaced, subject to conditions that preserve wilderness character. New public use cabins and shelters are allowed in designated wilderness for the protection of public health and safety, subject to conditions identified in ANILCA Section 1315(d), including notice to Congress of an intention to remove an existing cabin or construct a new public use cabin.

Navigation Aids and Other Facilities

Access to, and establishment, operation, and maintenance of new and existing air and water navigation aids, communication sites and related facilities, facilities for weather, climate, and fisheries research and monitoring, and national defense are allowed within conservation system units, including designated wilderness, in accordance with ANILCA Section 1310.

ANILCA Title VIII – Subsistence Management and Use Findings

SUBSISTENCE AND LAND USE DECISIONS

§810. (a) In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands under any provision of law authorizing such actions, the head of the Federal agency having primary jurisdiction over such lands or his designee shall evaluate the effect of such use,

occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such Federal agency--

(1) gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to §805;

(2) gives notice of, and holds, a hearing in the vicinity of the area involved; and

(3) determines that--

(A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands,

(B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and

(C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.

(b) If the Secretary is required to prepare an environmental impact statement pursuant to §102(2)(C) of the National Environmental Policy Act, he shall provide the notice and hearing and include the findings required by subsection (a) as part of such environmental impact statement.

(c) Nothing herein shall be construed to prohibit or impair the ability of the State or any Native Corporation to make land selections and receive land conveyances pursuant to the Alaska Statehood Act or the Alaska Native Claims Settlement Act.

(d) After compliance with the procedural requirements of this section and other applicable law, the head of the appropriate Federal agency may manage or dispose of public lands under his primary jurisdiction for any of those uses or purposes authorized by this Act or other law.

Appendix D: Mitigation Standards

Appendix D. Mitigation Standards

Section 1. Introduction

The term *mitigation* encompasses measures or procedures that could reduce or avoid adverse impacts and are not incorporated into the proposed action. Mitigation is a key component of the Bureau of Land Management's (BLM's) multiple-use sustainable yield mandate. When one permitted use could diminish a different permitted use, the application of mitigation standards can ensure multiple uses are balanced and provide for sustainable yields.

For National Environmental Policy Act (NEPA) purposes, under Council on Environmental Quality regulations, 40 Code of Federal Regulations (CFR) 1508.20, mitigation may include one or more of the following:

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action;
- (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and/or
- (e) Compensating for the impact by replacing or providing substitute resources or environments. Note that in 2018 BLM established a policy that except where a law specifically requires or as described in the policy, the BLM must not require compensatory mitigation from public land users. Compensation can be offered on a voluntary basis by the project sponsor but cannot be required by BLM (BLM 2018).

When assessing appropriate mitigation options, the BLM relies upon the mitigation hierarchy—first seeking to avoid impacts, then minimizing them, and then compensating for unavoidable impacts that could impair the productivity of the land and the values it sustains. The BLM works proactively with project proponents to assist them in designing and siting projects so that proposed projects can have fewer adverse impacts to resources of concern. Together, proactive work with the applicant and the implementation of the mitigation hierarchy can lead to successful development projects with improved outcomes for local communities, the project proponent, and the environment.

Section 2. How to Use this Appendix

This appendix provides a single location where BLM's goals and standards for mitigation can be referenced by BLM staff, project sponsors, and members of the public. It is often the case that a proposed action could have impacts on multiple resources. For example, a proposed road might intersect with an important fisheries habitat, the location of a significant cultural resource, and a recreational trail. This appendix outlines the mitigation goals that would apply to each impacted resource, allowing all interested parties to reference them easily. Mitigation described in this appendix is distinct from that required under Section 404 of the Clean Water Act.

Each sub-heading below corresponds to a resource area covered by the Bering Sea–Western Interior (BSWI) Approved Resource Management Plan (RMP).

Section 3. Mitigation Goals by Resource Area

3.1 Air and Air Quality-Related Values

Permitted activities would not have a no-net-loss¹ goal with regard to air quality. However, permittees would be required to mitigate to a level that meets requirements of the Federal Land Policy and Management Act (FLPMA), as well as applicable National Ambient Air Quality Standards and other applicable standards that provide for human health and safety and meet Visual Resource Management (VRM) requirements.

3.2 Soils

Permitted activities would not have a no-net-loss mitigation goal with regard to soil resources. However, actions would be required to meet the requirements of FLPMA as well as to reclaim per soil and vegetation reclamation, riparian and stream disturbance/reclamation, and fisheries rehabilitation requirements described for Locatable and Salable Minerals in the RMP. Permittees would also be required to mitigate to a level that meets all other applicable requirements mandated in the RMP and ensures the long-term sustainability of watershed health and function.

3.3 Water Resources and Fisheries

Permitted activities impacting Essential Fish Habitat (EFH) within all identified high-value watersheds (HVWs) would have a goal of no net loss. For EFH, the performance standard for no net loss would restore riparian function, assure stable channel form, and progress toward higher Stream Functional Objectives. Activities would achieve this performance standard through implementation of the mitigation hierarchy: avoid, minimize, rectify, reduce, or eliminate over time (BLM 2018). This required mitigation (including avoidance and minimization) would be determined through site-specific NEPA analysis at the project implementation/permitting level. However, potential recovery opportunities to offset net loss include the following:

- Restoration of identified Restoration Watersheds. These would include watersheds prioritized for restoration with medium-high or high aquatic resource value and low watershed condition.
- All Notice and Plan operations with stream disturbance require reclamation to rehabilitate fisheries and wildlife habitat consistent with 43 CFR 3809.420 and BLM Handbook H-3809-1 (BLM 2012). In cases where modern mining is planned for areas that are historically degraded from past land use practices, the reclamation would be expected to improve overall aquatic resource condition by rehabilitating habitats.

Additionally, permitted activities with the potential to impact community water supply water quality would have a goal of no net loss. The performance standard for no net loss would be maintenance of applicable water quality standards for safe drinking water. The required mitigation (including avoidance and minimization) to meet this performance standard would be determined through site-specific NEPA analysis and project implementation/permitting level. Potential recovery opportunities to offset net loss include the following:

¹ “No net loss” is defined as when mitigation results in no negative changes to baseline conditions (e.g., impacts are fully offset or balanced) (BLM 2016).

- Ensure water quality complies with federal and State water quality standards and achieves, or is making significant progress toward achieving, established BLM-management objectives, such as meeting wildlife needs (BLM Alaska Land Health Standards) by adopting federal and State water quality standards as specific BLM objectives for permitted activities.
- Reverse declines in the quality and quantity of aquatic habitats to ensure improvement of watershed health toward potential natural conditions (PNCs).
- Work to restore 303(d)-listed streams or other streams impacted from past land uses in the planning area to improve conditions toward PNC.
- Prioritize application to the State of Alaska for water rights to preserve required flows in the Nulato watershed, HVWs, and Wild and Scenic River (WSR) corridors. The BLM would pursue instream flow reservations of water for the following rivers and may prioritize additional rivers in HVWs:
 - Anvik River
 - Big River
 - Gisasa River
 - Kateel River
 - North River
 - Swift River
 - Unalakleet River
- The purpose of pursuing these water rights may include the following:
 - Maintain year-round flows necessary to sustain fish and wildlife habitat, migration, and propagation within and adjacent to said river.
 - Maintain or improve recreational opportunities.
 - Meet navigation and transportation goals.
 - Meet sanitary and water quality goals.

3.4 Vegetation

Permitted activities affecting special status species (SSS) flora and rare ecosystems would have a no-net-loss mitigation goal. For SSS flora and rare ecosystems, the no-net-loss goal performance standard would be maintenance of those populations and ecosystems at the same level of population size, health, and community diversity as before the action was taken. Activities would achieve this performance standard through implementation of the mitigation hierarchy: avoidance of impacts and then minimization of remaining impacts (BLM 2018). The required mitigation (avoidance and minimization) to meet this performance standard would be determined through site-specific NEPA analysis at the project implementation/permitting level.

3.5 Wildlife

Permitted activities affecting wildlife habitat would not have a no-net-loss mitigation goal. However, permittees would have to mitigate as necessary to meet the requirements of FLPMA as well as any mitigation requirements identified in the revised RMP.

3.6 Nonnative Invasive Species

Permitted activities would not have a no-net-loss mitigation goal with regard to nonnative invasive species (NNIS). However, permittees would be required to mitigate as required by FLPMA, and to a level that meets all other applicable requirements mandated in the RMP, thereby minimizing the extent of NNIS species to the maximum extent possible.

3.7 Wildland Fire

Permitted activities would not have a no-net-loss mitigation goal with fire management actions. However, activities that would increase the probability of human-caused ignitions or require additional protection measures would require mitigation as necessary to meet the requirements of FLPMA as well as applicable requirements mandated in the RMP to ensure the long-term sustainability of resources in the planning area while prioritizing protection of human lives and property. Specific mitigation requirements would be addressed during the NEPA process for project permitting. Examples include the following:

- Roads (potential increase in human-caused ignitions would require mitigation through fuels treatments)
- Powerlines (potential increase in human-caused ignitions would require mitigation through fuels treatments)
- Mining camps (potential increase in human-caused ignitions and additional protection measures would require mitigation through fuels treatments)

3.8 Cultural Resources

Permitted activities affecting culturally significant areas would have a no-net-loss mitigation goal. For cultural resources, the no-net-loss performance standard and the determination of whether it meets that standard would be made on a case-by-case basis through project-specific Section 106 consultation with the State Historic Preservation Office (SHPO) at the project implementation/permitting level. Activities would achieve this performance standard through implementation of the mitigation hierarchy: avoidance of impacts first and then minimization of impacts that cannot be avoided (BLM 2018). This required mitigation (avoidance and minimization) would also be determined through the Section 106 consultation process at the project implementation/permitting level.

3.9 Paleontological Resources

Permitted activities would not be required to meet a net gain or no-net-loss mitigation standard with regard to paleontological resources. However, permittees would be required to mitigate to a level that meets the requirements of FLPMA, as well as all other applicable requirements mandated in the RMP, and ensures the long-term preservation of paleontological resources in the planning area (BLM 2008).

3.10 Visual Resources Management

Permitted activities would not be required to meet a net gain or no-net-loss mitigation goal with regard to visual resources. However, permittees would be required to mitigate to a level that meets the requirements of FLPMA and all other applicable requirements mandated in the RMP and, specifically, is consistent with VRM requirements.

3.11 Lands with Wilderness Characteristics

Permitted activities would not be required to meet a net gain or no-net-loss mitigation standard with regard to mitigating impacts to lands with wilderness characteristics. Permittees would, however, be required to mitigate to a standard that meets the requirements of FLPMA. For those lands where the BLM had determined it will not manage for wilderness characteristics as priority (i.e., all lands under the Approved RMP), permittees would be required to mitigate to a level that meets all other applicable requirements in the regulations or mandated in the RMP. These RMP mitigations would provide a measure of protection for wilderness characteristics present on these lands.

3.12 Forestry and Woodland Products

Permitted activities would not be required to meet a net gain or no-net-loss mitigation standard with regard to forestry and woodland products. However, permittees would be required to mitigate to a level that meets the requirements of FLPMA, as well as all other applicable requirements mandated in the RMP, and ensures the long-term sustainability of resources supporting woodland harvest areas.

3.13 Reindeer Grazing

Permitted activities would not be required to meet a net gain or no-net-loss mitigation standard with regard to reindeer grazing. However, permittees would be required to manage reindeer grazing such that it is compliant with the requirements of FLPMA, BLM Alaska Land Health Standards, and any other promulgated range health standards. They would also have to manage at a level that meets all other applicable requirements mandated in the RMP.

3.14 Locatable and Salable Minerals

Permitted activities would not be required to meet a net gain or no-net-loss mitigation standard with regard to locatable and salable mineral development. They would be required to mitigate to a level that ensures no unnecessary or undue degradation as mandated by 43 CFR 3809 and 43 CFR 3715.

3.15 Leasable Minerals

Permitted leasable mineral development would not be required to meet a net gain or no-net-loss mitigation standard. However, permittees would be required to mitigate to a level that meets the requirements of FLPMA, as well as all applicable requirements mandated in the RMP, and any stipulations and requirements through their respective mineral leases.

3.16 Lands and Realty

Permitted land and realty activities would not be required to meet a net gain or no-net-loss mitigation standard. However, permittees would be required to comply with FLPMA and the Alaska National Interest Lands Conservation Act (ANILCA) and meet all other applicable requirements mandated in the RMP.

3.17 Recreation and Visitor Services

Permitted recreational activities would not be required to meet a net gain or no-net-loss mitigation standard. Permittees would be required to mitigate to a level that meets the requirements of FLPMA, as

well as all applicable requirements mandated in the RMP, ensures long-term resource sustainability, and provides for human health and safety.

3.18 Travel and Transportation Management

Travel and transportation activities would not be required to meet a no-net-loss or net gain mitigation standard. Permittees would be required to mitigate to a standard that meets the requirements of FLPMA, all applicable requirements from the RMP, complies with ANILCA, maintains long-term resource sustainability, and ensures public health and safety.

3.19 National Trails

Permitted development affecting intact Iditarod National Historic Trail (INHT) segments, their settings, and associated sites, or the resources associated with the nature and purpose of the INHT would have a no-net-loss goal. For the INHT, the no-net-loss performance standard and the determination of whether a project meets that standard would be made on a case-by-case basis through project-specific NEPA analysis and, if necessary, Section 106 consultation with the SHPO at the project implementation/permitting level. Activities would achieve the identified performance standard through implementation of the mitigation hierarchy: avoidance of impacts first and then minimization of impacts that cannot be avoided (BLM 2018). This required mitigation (avoidance and minimization) would also be determined on a case-by-case basis through project-specific NEPA analysis, and, if necessary, the Section 106 consultation process at the project implementation/permitting level.

The BLM would continue to work with adjacent landowners to manage for a no-net-loss goal, and if possible, net gain to INHT integrity, setting, and resources for segments of the INHT that are not located on BLM-managed public lands.

3.20 Wild and Scenic Rivers

Permitted development affecting designated WSR corridors would not have a no-net-loss mitigation goal. However, permittees would be required to mitigate to a level that is consistent with FLPMA and with protecting and enhancing the outstandingly remarkable values for which the WSR has been designated. Additionally, they would be required to mitigate to be compliant with all applicable requirements in the RMP.

3.21 Hazardous Materials and Health and Human Safety

Permitted development associated with hazardous materials would not have a no-net-loss mitigation goal. However, permittees would be required to mitigate to a level that meets the requirements of FLPMA and is compliant with all applicable federal, State, and local laws and regulations, as well as requirements in the RMP.

3.22 Support for BSWI Communities

Permitted projects with the potential to impact local rural communities would not have a no-net-loss mitigation goal. However, permittees would be required to mitigate to a level that meets the requirements of FLPMA and is compliant with ANILCA and the applicable requirements in the RMP.

Section 4. References

- BLM (Bureau of Land Management). 2008. Instruction Memorandum (IM) 2009-011. Assessment and Mitigation of Potential Impacts to Paleontological Resources. October 10, 2008. Expires September 30, 2010.
- BLM. 2012. BLM Handbook 3809-1, Surface Management. Available at:
<https://www.blm.gov/sites/blm.gov/files/H-3809-1.pdf> (accessed December 20, 2018).
- BLM. 2016. BLM Handbook 1794-1, Mitigation. December 22.
- BLM. 2018. IM 2019-018. Compensatory Mitigation. Supersedes IM No. 2018-093. December 6, 2018. Expires September 30, 2022.

Appendix E: Glossary

Appendix E. Glossary

Term	Definition
17(d)(1) withdrawal	A withdrawal made under the authority of Section 17(d)(1) of the Alaska Native Claims Settlement Act (ANCSA) for study to determine the proper classification of the lands and to determine the public values of the lands which need protection.
100-year floodplain	<p>The area inundated by the 100-year flood or the 1 percent annual exceedance probability flood (the flood event that has a 1 percent chance of being equaled or exceeded in any single year).¹ Department of the Interior policy requires the use of the 100-year floodplain when evaluating the potential effects of proposed actions.²</p> <p>The 100-year floodplain is difficult to accurately map without field surveys. On-the-ground surveys conducted within the planning area typically employ the Freeboard Approach, which is based on the current 1-percent-annual-chance flood elevation, with the addition of freeboard to account for uncertainties in future conditions (see: Guidelines of Implementing Executive Order 11988, Floodplain Management; October 2015) to determine the horizontal floodplain. The Bureau of Land Management (BLM) uses this Freeboard Approach to make on-the-ground, site-specific approximations of the 100-year floodplain as the area inundated when the water, at a riffle cross section, is at a depth of three times maximum bankfull depth.³</p> <p>Given the difficulty of remotely mapping the 100-year floodplain and the desire to convey the intent of the various management alternatives to the reader, riparian buffer distances are used as a proxy, or rule of thumb, in this resource management plan for the 100-year floodplain. Buffer distances are given as a distance from bankfull elevation and are dependent on stream order. Buffer distances apply to each side of the stream, and are as follows:</p> <ul style="list-style-type: none">• 1st and 2nd Order Streams – 100-foot buffer• 3rd Order Streams – 500-foot buffer• 4th and 5th Order Streams – 1,000-foot buffer• 6th, 7th, 8th, and 9th Order Streams – 1,500-foot buffer <p>These buffer distances, based on professional judgement and field surveys, are likely to approximate the 100-year floodplain extent. Nonetheless, these estimates are for planning purposes only and should be verified in the field at the project level using the three times maximum bankfull depth method described above.</p>

¹ McCuen, R.H. 2005. Hydrologic Analysis and Design. 3rd Edition. Prentice Hall: Upper Saddle River, New Jersey.

² U.S. Department of the Interior. 2020. Departmental Memo, Part 520, Chapter 2: Floodplain Management and Wetlands Protection Program Requirements. Office of Environmental Policy and Compliance. April 28.

³ Rosgen, D.L. 1996. Applied River Morphology. Wildland Hydrology Books: Pagosa Springs, Colorado.

Term	Definition
Actions	Measures or criteria to achieve desired outcomes (i.e., objectives), including actions to maintain, restore, or improve land health.
Adaptive management	A system of management practices based on clearly identified outcomes, monitoring to determine if management actions are meeting outcomes, and, if not, facilitating management changes that will best ensure that outcomes are met or to re-evaluate the outcomes.
Adequate snow cover	Snow or frost of sufficient depth, generally 6-12 inches or more, or a combination of snow and frost depth, sufficient to protect the underlying vegetation and soil.
Aircraft	A machine capable of flight. Aircraft includes fixed-wing (e.g., airplane) and rotary-wing (e.g., helicopter) 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.
Allowable uses	Uses, or allocations, that are allowable on specific BLM-managed lands and mineral estate. Different locations may have different uses that are allowed, restricted, or prohibited in order to comply with BLM's multi-use mandate.
All-terrain vehicle (ATV)	A wheeled vehicle other than a snowmobile having a curb weight of 1,000 pounds or less (1,500 pounds gross vehicle weight [GVW]) and a maximum width of 50 inches, that is steered using handlebars, travels on three or more tires (no tracks), and has a seat designed to be straddled by the operator. An example includes production "four wheelers."
Anadromous	Fish that live most of their lives in the sea but return to fresh water to spawn. Anadromous streams are those that support fish species that migrate between freshwater and marine waters, such as salmon.
Anthropogenic	Effects, processes, objects, or materials that are derived from human activities, as opposed to those occurring in natural environments without human influences.

Term	Definition
Area of Critical Environmental Concern	An area within the public lands where special management attention is required to protect important historic, cultural, or scenic values; fish and wildlife or other natural systems or processes; or to protect life and safety from natural hazards.
Artifact	An object that was made, used, and/or transported by humans that provides information about human behavior in the past. Examples include pottery, stone tools, and bones with cut marks.
Assessment, Inventory, and Monitoring (AIM)	The AIM strategy has been adopted by BLM Alaska to address BLM’s need for a systematic approach for integrating key components (attributes) into planning decisions, monitoring programs, and research needs. To answer this need, the foundation of the AIM strategy includes the principles of collecting nationally prescribed indicator metrics using consistent methods based on a statistically valid sample design to allow analytical tools to enable monitoring data to inform management decisions. AIM data collection encompasses both terrestrial and aquatic (referred to as lotic) resources. AIM monitoring data collected across the planning area describe the range of natural conditions for terrestrial and aquatic resources.
Bankfull stage	The depth of water in a stream at which incipient flooding occurs as the result of a streamflow that recurs on average every 1 to 2 years.
Best management practice	A suite of techniques that guide, or may be applied to, management actions to aid in the achieving of desired outcomes.
Candidate species	An animal or plant species for which the U.S. Fish and Wildlife Service (USFWS) and/or National Oceanic and Atmospheric Administration–Fisheries (also known as National Marine Fisheries Service [NMFS]) have sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities. Candidate species receive no protection under the ESA.
Case-by-case	A decision process by which authorization of allowable land use(s) is determined on a project-specific basis after considering potential impacts to human health and the environment.
Casual use	Noncommercial or nonorganized group or individual activities on public land. Casual use includes the following: complies with land use decisions and designations, does not award cash prizes, is not publicly advertised, poses minimal risk for damage to public land or related water resources, and generally requires no monitoring.

Term	Definition
Casual use (vehicle)	Includes any use of motorized vehicle, non-motorized method of travel, or other use that is not for subsistence, military, or emergency purpose and is not related to a permitted, authorized, or administrative activity authorized by the BLM or otherwise officially approved. Casual motorized vehicle use is synonymous with off-road/off-highway vehicle (OHV) use as defined by 43 Code of Federal Regulations (CFR) 8340.0-5(a).
Code of Federal Regulations (CFR)	A codification of the general and permanent rules published in the <i>Federal Register</i> by the Executive Departments and agencies of the federal government. The CFR is divided into 50 titles, which represent broad areas subject to federal regulation. Each volume of the CFR is revised at least once each year and issued on a quarterly basis.
Connectivity corridor	Connectivity corridors were developed using an analysis of landform features to design a climate resilient connection between the Yukon Delta National Wildlife Refuge and the Innoko National Wildlife Refuge. The analysis takes a geodiversity approach by using topography, soil, and hydrologic features because those characteristics are less dynamic and more enduring than species composition or land cover. This approach assumes that similar ecosystem types and functions will occur in similar topographic conditions and that similar topographic niches (steep, high elevation, sunny slopes) can host similar ecological assemblages.
Conservation system unit	Any Alaska unit of the National Park System, National Wildlife Refuge System, National Wild and Scenic Rivers Systems, National Trails System, National Wilderness Preservation System, or a National Forest Monument.
Conveyed	When the title to land was transferred from one party to another. The U.S. conveys title to land to Native corporations by patent and interim conveyance and to the State of Alaska by patent and tentative approval.
Cultural resources	Evidence of past human activity, occupation, or usage that includes landscapes, districts, sites, buildings, structures, and objects that were used, built, or modified by people. Cultural resources can include historic and archaeological sites, districts, traditional cultural places, and locations of sacred or ceremonial value.

Term	Definition
Decision area	The lands within a planning area for which the BLM has authority to make land use and management decisions. In general, the BLM has jurisdiction over all BLM-managed lands (surface and subsurface) and over the subsurface minerals only in areas of split estate (areas where the BLM administers federal subsurface minerals, but the surface is owned by a non-federal entity, such as State Trust Land or private land).
Endangered species	An animal or plant species designated by the USFWS and/or NMFS 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.
Essential Fish Habitat	Those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. Essential Fish Habitat is defined by the Magnuson-Stevens Fishery Conservation and Management Act (Public Law 94-265).
Excluded Unconveyed Claim Areas	The planning area has federal mining claim inholding areas surrounded by non-BLM managed lands. There are two types. The first is referred to as Active Excluded Unconveyed Claims (AEU), which are active unpatented federal mining claims that were properly located prior to State or ANCSA selections and remain active under the federal mining laws and therefore were excluded from the lands conveyed to the State of Alaska or ANCSA corporations. These remain under BLM management until they are converted to State Mining Claims, transferred to an ANCSA corporation, or determined abandon or void by operation of federal mining law. Second are Former Claims-Closed Excluded Unconveyed (CEU), where parcels were once AEU claims but have been closed under operation of law. CEUs are still BLM land until conveyed out of federal ownership. Due to State or ANCSA selections or Public Land Orders, the lands are not open to mineral entry under the federal mining laws. When an AEU claim is determined abandon or void under operation of federal mining laws, the lands become available for State or ANCSA selection rights. A CEU does not automatically convey/convert to State land or ANCSA land.
Executive Order	A rule or order issued by the president and having the force of the law.

Term	Definition
Federal Land Policy and Management Act (FLPMA)	A law passed in 1976 to establish public land policy, guidelines for its administration, and provide for the management, protection, development, and enhancement of the public lands.
<i>Federal Register</i>	A daily publication that reports presidential and federal agency documents.
Fire regime	<p>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:</p> <ul style="list-style-type: none"> • 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.
Fossil	Any preserved remains, impressions, or traces of an organism that lived in the geologic past.
Geomorphically stable	A stream channel that is in balance with the surrounding landscape; also known as being at dynamic equilibrium. This means that the stream bed maintains dimension, pattern, and profile without aggrading or degrading over time, and lateral adjustments do not change the cross-sectional area of the stream, even after flood events. Geomorphically stable streams typically have a mix of pools and riffles, effectively transport and store wood and sediment, and have adequate vegetation to reduce erosion and dissipate stream energy.
Goals	Broad statements of desired outcomes and management direction that are usually not quantifiable.
Gross vehicle weight (GVW)	The total weight of the vehicle plus the maximum loaded carrying capacity of the vehicle as specified by the manufacturer (i.e., GVW = weight of vehicle + fuel + passengers + cargo, per manufacturers' limitations). Pull-behind trailers are not included in the GVW calculation for the vehicle.
Groundwater	Water stored underground in crevices and the pores of the geologic materials of rock, sand, and soil that make up the Earth's crust.

Term	Definition
Hazardous materials	Includes fuel and oil, Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Hazardous Substances, Resource Conservation and Recovery Act Hazardous Waste, and Hazardous Materials as identified by 49 CFR 171-177, Transportation.
High-value watershed (HVW)	Watersheds that contain the highest fisheries and riparian resource values within the planning area. In these watersheds, riparian-dependent resources receive primary emphasis and management activities are subject to specific Required Operating Procedures. HVWs were classified using BLM’s Aquatic Resource Value (ARV) data, which was updated by BLM in early 2018 (see Appendix F of the BSWI Approved Resource Management Plan (RMP) for details on the ARV model).
Invasive species	Organisms that have been introduced into an environment where they did not evolve. Executive Order 13112 focuses on organisms whose presence is likely to cause economic harm, environmental harm, or harms to human health. See also noxious weeds.
Land conveyance	In Alaska, “conveyance” generally means the conveyance of lands under ANCSA and/or the Alaska Statehood Act or the Native Allotment Act, including the Dingell Act.
Land disposal	A disposal is where the BLM sells land that is not encumbered by a selection application filed by an ANCSA corporation or the State of Alaska. As long as the lands remain selected by the State of Alaska or ANCSA, these lands can only be conveyed to the State or Native corporation that selected the lands—they cannot be disposed of by sale; see also land conveyance.
Land status	The legal standing of land within BLM boundaries. Land status includes private, military, State, State-selected, Native, Native-selected, and unencumbered public lands.
Land tenure	The legal system through which property rights are allocated. Land tenure defines how access, use, control, and transfer is granted.
Land use plan	A plan that regulates the land use of an area(s) to assure its efficient and reasonable use, guide future land use decisions, and prevent land use conflicts. BLM planning regulations require that RMPs be consistent with approved or adopted land use plans (and similar plans of other federal, State, local, and tribal governments) to the extent that such plans are consistent with federal laws and regulations applicable to public lands.
Lands with wilderness characteristics	These attributes include the area's size, its apparent naturalness, and outstanding opportunities for solitude or a primitive and unconfined type of recreation. They may also include supplemental values.

Term	Definition
Leasable minerals	Minerals subject to exploration and development under leases, permits, and licenses under various mineral leasing acts. Leasable minerals include oil, gas, and coal. See also locatable minerals.
Lease	A means of allowing long-term possession and use of public lands without transferring ownership of that land.
Locatable minerals	Minerals subject to appropriation under the mining laws and 43 CFR 3809. Locatable minerals include base metals (e.g., copper, lead, and zinc), noble metals (e.g., silver and gold), nickel, iron, platinum group elements, bentonite, gem and semiprecious gemstones, and nephrite jade. See also leasable minerals.
Management Framework Plan	A planning decision document prepared before the effective date of the regulations implementing the land use planning provisions of the FLPMA. The Management Framework Plan establishes, for a given area of land, land-use allocations, coordination guidelines for multiple use, and objectives to be achieved for each class of land use or protection.
Mechanized travel	Moving by a mechanical device (e.g., bicycle) not powered by a motor. See also non-motorized travel.
Memorandum of Understanding	A formal, written agreement between organizations or agencies that presents the relationship between the entities for purposes of planning and management.
Mineral materials	Includes stone, sand, gravel, clay, peat, and humates. This term does not include metallic ores, oil, or gas.
Motorcycle	Motorized vehicle with two tires and with a seat designed to be straddled by the operator. This includes motorcycles converted to run on a track(s) and ski(s) specifically over snow. A motorcycle is capable of either on- or off-highway use.
Motorized vehicles	Vehicles that are propelled by motors or engines, such as cars, trucks, OHV, motorcycles, and snowmobiles.

Term	Definition
Multiple use	Includes (1) the management of all the various renewable surface resources so that they are utilized in the combination that will best meet the needs of the American people; (2) making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; (3) the understanding that some land will be used for less than all of the resources; and (4) the harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output (43 U.S. Code [U.S.C.] 1702(c)).
National Environmental Policy Act (NEPA)	A 1969 act mandating an environmental analysis and public disclosure of federal actions.
National Wild and Scenic River System	A system of nationally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values and are preserved in a free-flowing condition. The system consists of three types of streams: (1) recreational—rivers or sections of rivers that are readily accessible by road or railroad and that may have some development along their shorelines and may have undergone some impoundments or diversion in the past; (2) scenic—rivers or sections of rivers free of impoundments with shorelines or watersheds still largely undeveloped but accessible in places by roads; and (3) wild—rivers or sections of rivers free of impoundments and generally inaccessible except by trails, with watersheds or shorelines essentially primitive and waters unpolluted. See also Wild and Scenic River.
Native-selected	BLM lands that have been selected by a Native corporation under the ANCSA, which gave Alaska Natives an entitlement of 44 million acres to be selected from a pool of public lands specifically defined and withdrawn by the act for that purpose.
No action alternative	The most likely condition expected to exist if current management practices continue unchanged. The analysis of this alternative is required for federal actions under NEPA.
Non-motorized travel	Moving by foot, stock or pack animal, boat, or mechanized vehicle, such as a bicycle. See also mechanized travel.
Noxious weed	A plant species designated by federal or State law as possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or nonnative, new, or not common to the U.S. See also invasive species.

Term	Definition
Objectives	Specific desired outcomes for resources. Objectives may be quantifiable and measurable and may have established timeframes for achievement, as appropriate.
Off-highway vehicle (OHV)	Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding (1) any non-amphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorizing officer, or otherwise officially approved; (4) vehicles in official use; and (5) any combat or combat support vehicle when used for national defense (43 CFR 8340.0-5(a)). OHVs generally include dirt motorcycles, dune buggies, jeeps, four-wheel drive vehicles, snowmobiles, ATVs. OHV is synonymous with off-road vehicle, utility type (or terrain) vehicle (UTV), and ATV. Aircraft are not OHVs.
Off-highway vehicle area designations	<p>Used by federal agencies in the management of OHVs on public lands. Refers to the land use planning decisions that permit, establish conditions, or prohibit OHV activities on specific areas of public lands. All public OHV designations (43 CFR 8342.1). The CFR requires all BLM-managed public lands to be designated as “open,” “limited,” or “closed to off-road vehicles” and provides guidelines for designation. The definitions of open, limited, and closed are provided in 43 CFR 8340.0-5 (f), (g), and (h), respectively.</p> <ul style="list-style-type: none"> • Open: Motorized vehicle travel is permitted year-long anywhere within an area designated as “open” to OHV use. Open designations are used for intensive OHV use areas where there are no special restrictions or where there are no compelling resource protection needs, user conflicts, or public safety issues to warrant limiting cross-country travel. • Limited: Motorized vehicle travel within specified areas and/or on designated routes, roads, vehicle ways, or trails is subject to restrictions. The “limited” designation is used where OHV use must be restricted to meet specific resource management objectives. Examples of limitations include number or type of vehicles; time or season of use; permitted or licensed use only; use limited to designated roads and trails; or other limitations if restrictions are necessary to meet resource management objectives, including certain competitive or intensive use areas that have special limitations. • Closed: Motorized vehicle travel is prohibited in the area. Access by means other than motorized vehicle is permitted. Areas are designated closed if closure to all vehicular use is necessary to protect resources, promote visitor safety, or reduce use conflicts.

Term	Definition
Outstandingly remarkable value	As defined by the Wild and Scenic Rivers Act of 1968, an “outstandingly remarkable value” is the characteristic of a river segment that is judged to be a rare, unique, or exemplary feature that is significant at a regional or natural scale. Values can be recreational, scenic, geological, historical, cultural, biological, botanical, ecological, heritage, hydrological, paleontological, scientific, or research-related.
Over-snow vehicle	A motor vehicle designed or converted for use over snow that is not a snowmobile, runs on a track or tracks, uses a ski or skis or track for turning, and has a vehicle width greater than 50 inches. Examples include vehicles or trucks converted to tracks, snow cats, snow buses, and Nodwells. All over-the-snow vehicles would require a pre-use authorization for use of this vehicle type.
Paleontological	Of or relating to a science dealing with the life of past geological periods as known from fossil remains.
Paleontological resources	Any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest and that provide information about the history of life on earth. A paleontological resource can include prehistoric plants and animals, including both vertebrates and invertebrates, as well as direct evidence of their presence (tracks, worm burrows, etc.).
Paleontological Resources Preservation Act	A 2009 act that directs the Department of Agriculture (U.S. Forest Service) and the Department of the Interior (National Park Service, BLM, Bureau of Reclamation, and USFWS) to manage and protect paleontological resources on federal land using scientific principles and expertise.
Particulates	Fine liquid or solid particles found in the air or emissions, such as dust, smoke, mist, fumes, or smog.
Permafrost	Soil, sand, gravel, or bedrock that has remained below 32°F for two or more years. Permafrost features include frost boils (accumulation of excess water and mud in subsurface materials during spring thaw that may break through the surface), hummocks (a mound of broken ice projecting upward, formed by ice deformation), ice wedges (a build-up of ice in frozen soil, which is wedge-shaped in cross-section), ice lenses (accumulation of ice in cavities and hollows in the soil), pingos (an arctic mound or conical hill, consisting of an outer layer of soil covering a core of solid ice), polygonal ground (a type of patterned ground in areas of ice wedges), and solifluction lobes (an isolated tongue-shaped feature formed by rapid solifluction [downhill movement of soil] on a slope).

Term	Definition
Permanent structure	A structure fixed to the ground by any of the various types of foundations, slabs, piers, poles, or other means allowed by building codes. The term also includes a structure placed on the ground that lacks foundations, slabs, piers, or poles and that can only be moved through disassembly into its component parts or by techniques commonly used in house moving (43 CFR 3715.0-5).
Permit	A means of authorizing use of public lands in an equitable, safe, and enjoyable manner while minimizing adverse impacts and user conflicts. A permit does not transfer ownership of the land, it simply allows the permittee to use the land in a pre-determined fashion for a set amount of time.
Personal use	Allowed use of renewable resources by individuals other than federally qualified rural residents. Such resource use cannot be sold, bartered, traded, or used to obtain a profit.
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 and/or states, 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.
Potential Fossil Yield Classification (PFYC)	A working model of areas where geological conditions in unsurveyed areas are similar to those in other locations that are known to contain paleontological resources and which therefore have a higher likelihood to contain paleontological resources.
Potential natural condition (PNC)	The range of natural conditions that defines the preferred values for a quantitative attribute. PNC is calculated from data collected in the region at similar sites that experience minimal human disturbance. Statistically, PNC is the portion of a metric's distribution excluding the top and/or bottom percentiles, outliers, of its measured range of variability. These outliers of PNC exhibit impairment from a functioning condition as a result of disturbance. These disturbances could include wildland fire, insects/disease, thermokarst dynamics, etc.
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.

Term	Definition
Primitive road	A linear route managed for use by four-wheel drive or high-clearance vehicles. Primitive roads do not normally meet any BLM road design standards.
Primitive route	Any transportation linear feature located within a wilderness study area or lands with wilderness characteristics prioritized for management by a land use plan and not meeting the wilderness inventory road definition.
Proper functioning condition	Riparian habitats are at proper functioning condition when adequate vegetation, land form, or large woody debris is present to (1) dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality; (2) filter sediment, capture bedload, and aid floodplain development; (3) improve floodwater retention and groundwater discharge; (4) develop root masses that stabilize streambanks against cutting action; (5) develop diverse bedform characteristics (pond and riffle sequences) to provide the habitat and water depth, duration, and temperature necessary for fish production, and other uses; and (6) support greater biodiversity.
Proposed species	Candidate plant and animal species that are found to warrant listing under the ESA as either threatened or endangered by the USFWS and/or NMFS after completion of a status review and consideration of other protective conservation measures.
Public land	FLPMA (43 U.S.C. 1702) defines public land as land or interest in land owned by the U.S. and administered by the Secretary of the Interior through the BLM without regard to how the U.S. acquired ownership, except land located on the Outer Continental Shelf and land held for the benefit of Native Americans, Aleuts, and Eskimos. ANILCA (16 U.S.C. 3102) defines public lands as land situated in Alaska which, after the date of the enactment of this Act, are federal lands, except (1) land selections of the State of Alaska that have been tentatively approved or validly selected under the Alaska Statehood Act; (2) land selections of a Native corporation made under ANCSA that have not been conveyed, unless such selection is determined to be invalid or is relinquished; and (3) lands referred to in Section 19(b) of ANCSA.
Public Land Order	Actions implemented by the Secretary of Interior to make, modify, extend, or revoke land withdrawals; see withdrawal.
Public use	This category of cultural resource use may be applied to any cultural property or historical features in the planning area found to be appropriate for use as an interpretive exhibit or for related educational and recreational uses by the public.

Term	Definition
Record of Decision	A public document associated with an EIS that identifies all alternatives and provides the final decision, the rationale behind that decision, and commitments to monitoring and mitigation.
Recreation and Public Purposes (R&PP) Act	The R&PP Act provides guidelines and authorization for the transfer (e.g., lease or sale) of certain public lands (e.g., parks or cemeteries) to states or their political subdivisions, and to nonprofit corporations and associations, to serve community and recreational purposes.
Resource Management Plan (RMP)	A plan that guides future land management actions and subsequent site-specific implementation decisions for an area(s). RMPs establish goals and objectives for resource management (desired outcomes) and the identified resource uses (allocations) that are allowable, restricted, or prohibited in order to achieve the goals and objectives. Management actions are also identified where they can help to achieve desired outcomes and include measures or criteria that may guide both day-to-day and long-term management. All decisions are pursuant to the multiple-use and sustained-yield mandate of the FLPMA.
Right-of-way (ROW)	The legal right to pass over another owner's land or the area over which a ROW exists. 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.
Riparian area	A form of transition between terrestrial and aquatic ecosystems. These areas are distinctly different from the surrounding lands because of unique soil and vegetation characteristics that are strongly influenced by free or unbound water in the soil. Riparian areas connect waterbodies with their adjacent uplands through surface and subsurface hydrology and are adjacent to perennial, intermittent, and ephemeral streams, lakes, and estuarine-marine shorelines. ^{4,5}
Riparian buffer	Variable-width management zone that can be applied to each side of a river, stream, or other waterbody. Riparian buffers can protect water quality and ensure wildlife habitat suitability is maintained. In this RMP, riparian buffer distances on rivers and streams are used as proxies for the 100-year floodplain. See also 100-year floodplain.
Road	A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use.

⁴ United States Department of Agriculture, Natural Resource Conservation Service. 2010. Part 411 - Riparian Area Recognition and Management. In Title 190 - Ecological Sciences. General Manual.

⁵ National Research Council. 2002. Riparian Areas: Functions and Strategies for Management. National Academy of Science. Washington D.C.

Term	Definition
ROW Avoidance Area	Areas to be avoided for ROW location but may be available for location of ROWs with special stipulations as long as new ROW application documentation demonstrates (1) the other locations researched and reasons each researched location is not feasible and (2) project design features/mitigation measures are incorporated to minimize resource concerns. The decision to grant a ROW within a ROW Avoidance Area would be made by the Authorized Officer (AO) after project-specific NEPA has been completed.
ROW Avoidance Area for Linear Realty Actions	Areas where new linear ROWs are to be avoided and placed in other areas if feasible. Areas may be available to location of linear ROWs with special stipulations as long as the new linear ROW application documentation demonstrates (1) the other locations researched and reasons each researched location is not feasible and (2) project design features/mitigation measures are incorporated to minimize resource concerns. Decisions to grant a linear ROW within a linear ROW Avoidance Area would be made by the AO after project-specific NEPA has been completed.
ROW Exclusion Area	Areas that are not available for location of ROWs under any conditions. A plan amendment would be required for a new ROW within a ROW Exclusion Area.
Salable minerals	Minerals subject to the Materials Act of 1947, as amended. Salable minerals include materials such as stone, sand, and gravel.
Salable, Open to (subject to terms and conditions)	Terms and conditions for potential sales are designed to protect resource values while operating under the mineral materials regulations and are developed and published as part of a land use plan. These terms and conditions then become part of permits and sales issued at the implementation level.
Scoping	The process used to determine, through public involvement, the range of issues that the RMP should address.

Term	Definition
Sensitive species	<p>Those wildlife, fish, or plant species designated by the BLM-Alaska State Director, usually in cooperation with the State agency responsible for managing the species, as sensitive. They are (1) species under status review by USFWS and/or NMFS, (2) species whose numbers are declining so rapidly that federal listing may be necessary, (3) species with typically small and widely dispersed populations, or (4) species inhabiting ecological refuges or other specialized or unique habitats. Sensitive species include threatened, endangered, or proposed species as classified by the USFWS or species designated by a State wildlife agency as needing special management. Species designated as BLM sensitive must be native species that occur on BLM lands and for which BLM has significant management capability to affect their conservation status. In addition, one of the following two criteria must also apply:</p> <p>(1) There is information that a species is known or predicted to undergo a downward trend such that viability of the species or a distinct population segment of the species is at risk across all or a significant portion of its range, or</p> <p>(2) The species depends on ecological refugia, specialized habitats, or unique habitats, and there is evidence that such areas are threatened with alteration such that the continued viability of the species in that area would be at risk.</p>
Snowmachine, Snowmobile	<p>A motorized vehicle 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 a maximum vehicle width of 50 inches or less that is steered using handlebars and has a seat designed to be straddled by the operator. An example includes production snowmobiles. Snowmobiles do not include machinery used strictly for the grooming of non-motorized trails.</p>
Special Recreation Management Area	<p>Areas where the management emphasis is on recreation, although other resource uses and development are allowed.</p>
Special recreation permit (SRP)	<p>A means of authorizing recreational uses of public lands and waters. SRPs are issued for specific recreational uses as a means to manage visitor use, protect natural and cultural resources, and provide a mechanism to accommodate commercial recreational uses. There are four types of permits: commercial, competitive, organized groups/events, and individuals or groups in special areas.</p>
Special status species	<p>Special status species include the following: endangered species, threatened species, proposed species, candidate species, State-listed species, and BLM-Alaska sensitive species.</p>

Term	Definition
Standard operating procedure (SOP)	Procedures carried out daily during project implementation that are based on laws, regulations, executive orders, BLM planning manuals, policies, instruction memoranda, and applicable planning documents. SOPs describe the flow of actions and identify roles and responsibilities. Using SOPs maintains operational efficiency and consistency during the implementation process.
State-listed species	A species or subspecies of fish or wildlife considered endangered by the State of Alaska Department of Fish and Game under Alaska Statute 16.20.190.
State-selected	Formerly unappropriated and unreserved public lands that were selected by the State of Alaska as part of the Alaska Statehood Act of 1958 and ANILCA. Until conveyance, State-selected lands outside of National Park system lands or National Wildlife Refuges will be managed by the BLM. ANILCA allowed for overselection by the State by up to 25 percent of the entitlement. Therefore, some State-selected lands will eventually be retained in long-term federal management.
Stipulations	To provide additional detail or criteria that could be applied to allowable uses or management actions. Examples include no surface occupancy, Controlled Surface Use, and timing limitation. These stipulations apply to fluid mineral leasing and development of federal mineral estate underlying BLM-managed lands, privately owned lands, and State-owned lands. Another example would include stipulations (or conditions) that could be required in ROW Avoidance Areas in order to consider those areas available for ROW.
Subsistence use	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 ANILCA Section 811 and/or ANILCA Section 1110.
Successional stage	The replacement in time of one plant community with another. The prior plant community creates conditions that are favorable for the establishment of the next community.
Summer	Any time there is not adequate snow cover or frost to allow the operation of over-the-snow vehicles or snowmobiles without damaging surface vegetation and soils.
Surface water	Water that is on the Earth’s surface, such as in a stream, river, lake, or reservoir that is replenished by precipitation or groundwater.

Term	Definition
Sustained yield	The achievement and maintenance in perpetuity of a high-level annual or regular output of the various renewable resources of the national forests without impairment of the productivity of the land (43 U.S.C. 1702(h)).
Temporary route	Short-term overland roads, primitive roads, or trails authorized or acquired for the development, construction, or staging of a project or event that has a finite lifespan.
Temporary structure	Tents, tent frames, and tents with platforms, all of which are disassembled and removed.
Thermokarst	Land-surface configuration that results from the thawing of ground ice in a region underlain by permafrost.
Threatened species	A designation by the USFWS and/or NMFS for when a plant or animal is likely to become endangered throughout all or a specific portion of its range within the foreseeable future.
Top-file	Future selections filed by the State of Alaska under Section 906(e) of ANILCA, for lands that were not available on the date of filing of such applications. Future selections, or top-filings, shall become an effective selection without further action by the State upon the date the lands included in such application become available for State selection. Some of the lands under an ANCSA 17(d)(1) withdrawal are top-filed and will become valid selections upon revocation of that withdrawal.
Traditional Cultural Property	The National Park Service defines a Traditional Cultural Property (TCP) as “a property that is eligible for inclusion in the National Register of Historic Places (NRHP) based on its associations with the cultural practices, traditions, beliefs, lifeways, arts, crafts, or social institutions of a living community. TCPs are rooted in a traditional community’s history and are important in maintaining the continuing cultural identity of the community.”
Trail	A linear route managed for human-powered, stock, or OHV forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.
Transportation linear disturbance	An existing user-made route that is not actively managed by the BLM. The decision regarding whether to retain or close this type of transportation linear feature would be made through implementation-level travel management planning

Term	Definition
Travel Management Area (TMA)	Polygons or delineated areas where travel management (either motorized or non-motorized) needs particular focus. These areas may be designated as open, closed, or limited to motorized use and will typically have an identified or designated network of roads, trails, ways, and other routes that provide for public access and travel across the area. All designated travel routes within TMAs should have a clearly identified need and purpose and clearly defined activity types, modes of travel, and seasons or times for allowable access or other limitations.
Travel Management Plan	The document that describes the decisions related to the selection and management of the transportation network. This document can be an appendix to an RMP, incorporated in activity implementation plan (such as a Recreation Implementation Plan), or a stand-alone document after development of the RMP.
Treadway	The actively used surface of a trail. ⁶
Unencumbered	Public lands that have not been selected by the State of Alaska or Native organizations. These lands will be retained in long-term federal management.
Unmanned aircraft system (UAS)	An aircraft without a human pilot onboard; instead, the UAS is controlled from an operator on the ground. Also known as a drone.
United States Code (U.S.C.)	The consolidation and codification of general and permanent laws of the United States. The U.S.C. is divided into 53 titles that are separated by subject matter. It is prepared by the Office of the Law Revision Counsel of the United States House of Representatives.
Utility terrain vehicle (UTV)	Any recreational motor vehicle other than an ATV, motorcycle, or snowmobile designed for and capable of travel over unpaved roads, traveling on four or more low-pressure tires, with a curb weight of 1,500 pounds or less (2,000 pounds GVW), and a maximum width of 66 inches. Examples include production “quad/side-by-sides” and Argos. Utility type vehicles do not include vehicles specially designed to carry a person with disabilities.
Visual Resource Management	A means of managing visual resources by designating areas as one of four classes: (1) Class I—maintaining a landscape setting that appears unaltered by humans, (2) Class II—designing proposed alterations so as to retain the existing character of the landscape, (3) Class III—designing proposed alterations so as to partially retain the existing character of the landscape, and (4) Class IV—providing for management activities which require major modifications of the existing character of the landscape.

⁶ U.S. Department of Transportation Federal Highway Administration. 2007. Trail Construction and Maintenance Handbook. July.

Term	Definition
Waterbody	Body of water forming a physiographical feature. Waterbodies include oceans, seas, rivers, streams, lakes, ponds, and wetlands, and can include both naturally occurring and artificial features (e.g., reservoirs).
Watercraft	Includes, but is not limited to, boats or ships (whether powered by engine, wind, or other means), barges, surfboards, personal watercraft, water skis, or any other device or mechanism the primary or an incidental purpose of which is locomotion on, or across, or underneath the surface of the water (50 CFR 17.102).
Wetlands	Freshwater wetlands are defined as “environments characterized by rooted vegetation that is partially submerged either continuously or periodically by surface freshwater with less than 0.5 parts per thousand salt content and not exceeding three meters in depth.” Saltwater wetlands are defined as “coastal areas along sheltered shorelines characterized by halophilic hydrophytes and macro algae extending from extreme low tide to an area above extreme high tide that is influenced by sea spray or tidally induced water table changes.” This definition is comparable to the Clean Water Act Section 404 definition except that it goes beyond the Section 404 definition in regulating vegetated areas to a depth of 3 meters. ⁷
Wild and Scenic River	A river that is part of the National Wild and Scenic River System. Also known as a Wild River. In Alaska, most Wild and Scenic Rivers were designated through the ANILCA. See also National Wild and Scenic Rivers System.
Wildfire	An unplanned ignition of a wildland fire (such as a fire caused by lightning, volcanoes, or unauthorized and accidental human-caused fires) and escaped prescribed fires.
Wildland fire	General term describing any non-structure fire that occurs in the wildland. Wildland fires are categorized into two distinct types: (1) Wildfires—unplanned ignitions or prescribed fires that are declared wildfires; or (2) Prescribed fires—planned ignitions.
Winter	Any time where there is adequate snow cover or frost to allow the operation of over-the-snow vehicles or snowmobiles without damaging surface vegetation and soils (43 CFR 36, ANILCA Special Access Provision). Adequate snow cover or frost shall mean snow of sufficient depth, generally 6-12 inches or more, or a combination of snow and frost depth, sufficient to protect the underlying vegetation and soil.

⁷ Association of State Wetland Managers. 2019. Alaska State Wetland Program Summary. Available at: https://www.aswm.org/pdf_lib/state_summaries/alaska_state_wetland_program_summary_083115.pdf. Accessed July 2019.

Term	Definition
Withdrawal	Withholding an area of federal land from settlement, sale, location, or entry under some or all of the general land laws, for purposes of limiting activities under those laws in order to maintain other public values in the area or reserving the area for a particular public purpose or program; or transferring jurisdiction over an area of federal land from one department, bureau, or agency to another. Usually enacted through a Public Land Order or legislation.
Woodland harvest	The gathering of any woodland products. These include any vegetative products, including firewood, biomass, house logs, saw logs, berries, and mushrooms for personal or commercial use. Incidental use of poles for marking trails or hanging game is not considered woodland harvest and would not be subject to management requirements.

Appendix F: Aquatic Resource Value (ARV) Model Information

Appendix F. Aquatic Resource Value (ARV) Model Information

Section 1. Introduction

To identify the highest resource value aquatic habitats, the Bureau of Land Management (BLM) developed a priority ranking system using a combination of automated GIS modelling and professional judgment. Priority ranking for each of the 726 6th level (12-digit) Hydrologic Unit Code (HUC6) watersheds that contained BLM-managed lands in the Bering Sea–Western Interior (BSWI) planning area was based on a variety of factors using an Aquatic Resource Value (ARV) model. The primary aquatic factors considered in the model were priority fish species presence, diversity of species, habitat conditions, and productivity. The ARV scores were then grouped into four distinct classes with similar scores described as Low, Medium, Medium-High, or High to allow development of a range of alternatives for consideration in the Land Use Plan (LUP).

BLM Manual H-1601-1 provides guidance on Land Use Planning, including what types of resource decisions should be made at the LUP level. For fish and wildlife resources, the manual provides the following required LUP decisions:

- Designate priority species and habitats.
- Identify desired outcomes using BLM Strategic Plans, State Plans, and other similar sources.
- Identify desired habitat conditions.
- Identify actions and area-wide use restrictions needed to achieve desired population and habitat conditions while maintaining a thriving natural ecological balance and multiple-use relationships.

To meet these plan requirements for aquatic resources, BLM Alaska has outlined a systematic approach that includes three steps:

1. Identifying priority fish species
2. Identifying priority habitats
3. Watershed prioritization that provides for priority fish species and aquatic habitats in the development of alternatives

Each of these steps is discussed in the following, corresponding sections.

Section 2. Priority Fish Species

To identify priority species, BLM fish biologists considered fish species that are important for subsistence or recreation within the planning areas (Table 1).

Table 1. Draft List of Priority Fish Species Common on BLM-Managed Lands in Alaska

Common Name	Scientific Name	Priority Status
Chinook salmon	<i>Oncorhynchus tshawytscha</i>	Subsistence, Recreation
Chum salmon	<i>Oncorhynchus keta</i>	Subsistence
Coho salmon	<i>Oncorhynchus kisutch</i>	Subsistence, Recreation
Arctic grayling	<i>Thymallus arcticus</i>	Subsistence, Recreation
Broad whitefish	<i>Coregonus nasus</i>	Subsistence
Humpback whitefish	<i>Coregonus pidschian</i>	Subsistence
Round Whitefish	<i>Prosopium cylindraceum</i>	Subsistence
Whitefish	<i>Coregoninae</i> spp.	Subsistence
Least cisco	<i>Coregonus sardinella</i>	Subsistence
Sheefish	<i>Stenodus leucichthys</i>	Subsistence, Recreation
Northern pike	<i>Esox lucius</i>	Subsistence, Recreation
Burbot	<i>Lota lota</i>	Subsistence, Recreation
Alaska Brook Lamprey	<i>Lampetra alaskense</i>	BLM sensitive

Section 3. Identification of Priority Habitats

To identify priority habitats and conditions across the planning areas, BLM utilized a landscape-level approach to evaluate ARVs (Table 2). This approach was adapted from one that was used in the Eastern Interior Resource Management Plan (RMP) process and Trout Unlimited’s Conservation Success Index (William et al. 2007). One of the key policy considerations is the use of a landscape approach to identify priority habitats, as outlined in BLM Instruction Memorandum 2009-141. This policy outlines BLM’s commitment to the National Fish Habitat Action Plan and establishes four goals:

1. Protect and maintain intact and healthy aquatic systems.
2. Prevent further degradation of fish habitats that have been adversely affected.
3. Reverse declines in the quality and quantity of aquatic habitats to improve the overall health of fish and other aquatic organisms.
4. Increase the quality and quantity of fish habitats that support a broad natural diversity of fish and other aquatic species.

The ARV model approach is consistent with these National Fish Habitat Action Plan goals.

Table 2. ARV Model Inputs

Value	Definition	Score
Essential Fish Habitat Present	Using the Alaska Department of Fish & Game Anadromous Waters Catalog (AWC), GIS data, and/or professional knowledge, determine if salmon species occur in the watershed.	2 points
Fish Species Diversity	Based on reports and/or professional knowledge, determine the number of fish species occurring in the watershed.	1-2 species = 1 point 3-4 species = 2 points 5-6 species = 3 points 7-8 species = 4 points > 9 species = 5 points
Anadromous Species Present (Non Salmon)	Using the AWC GIS data, select watersheds that contain non-salmon species (whitefish, lamprey, etc.).	2 points
Unique or Rare Fishery Resource or Habitat (incl. BLM Special Status Species/Watch sp.)	All known spawning areas for priority species based on the AWC GIS data and professional judgment (5 points). Determination of unique resources or habitats based on professional judgment (5 points).	5 + 5 points

Section 4. Watershed Prioritization—ARV Model Results and Classification

ARV numeric scores were summed for each of the 726 HUC6 watersheds. The ARV score results had a minimum score of 0 and a maximum score of 14 (of a possible maximum of 19), with a mean of 5.53 and a standard deviation (SD) of 4.31. No unique or rare fishery professional judgment points were used in the current analysis, but they may be necessary in future model runs to ensure protection of not yet known unique fisheries resources that are not a part of the AWC.

An SD classification method was used to classify the ARV scores into four classes: Low, Medium, Medium-High, and High. The classification break between Low and Medium is 3.38, 0.5 SD below the mean (i.e., mean-0.5SD). The classification break between Medium and Medium-High is 7.69, 0.5 SD above the mean. The classification break between Medium-High and High is 9.84, 1 SD above the mean.

Figures 1 and 2 show the results of the ARV model SD classification for the four classes for the BSWI HUC6 watersheds.

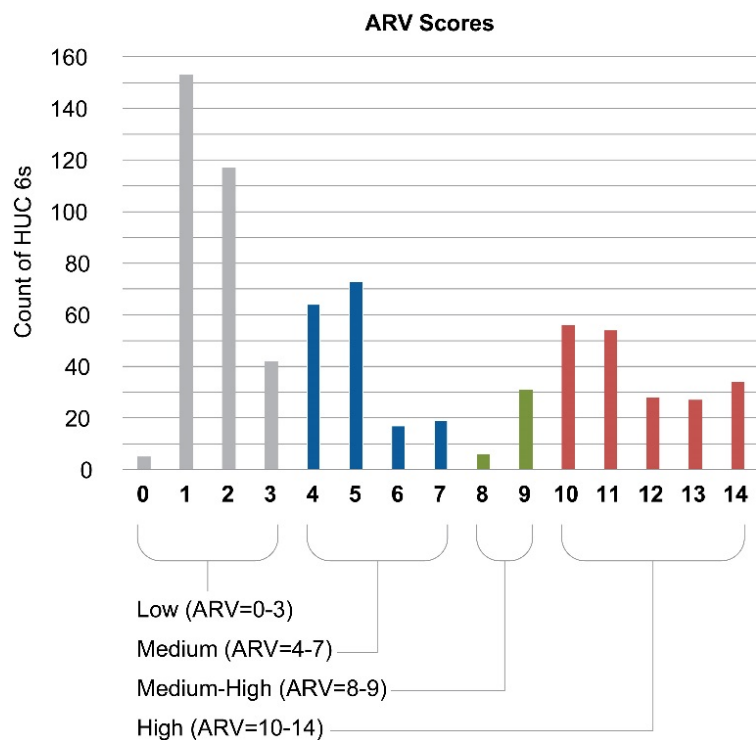


Figure 1. ARV Model Results. Histogram showing the 15 ARV scores along the horizontal axis and the count of watersheds that received each score on the vertical axis.

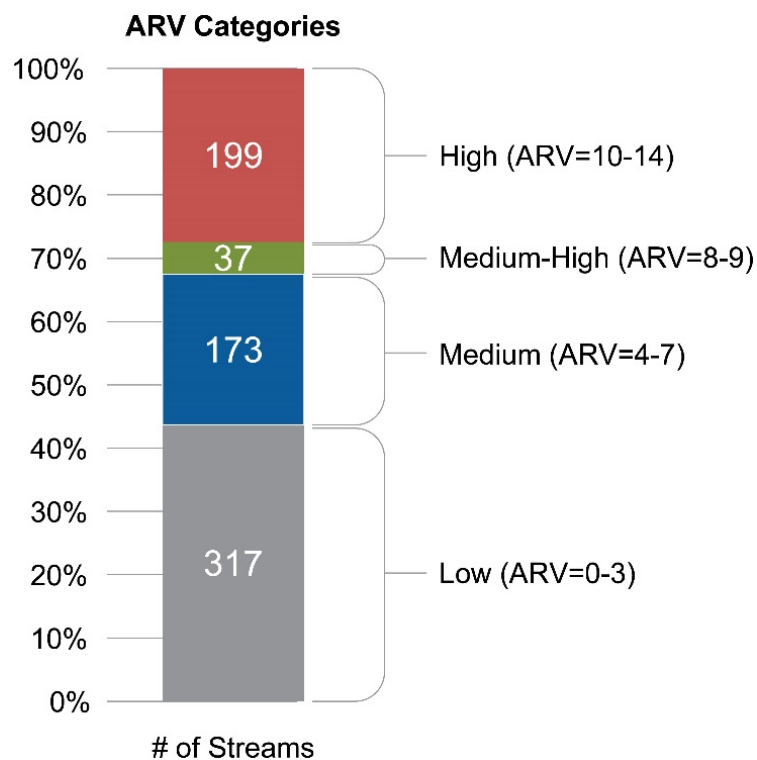


Figure 2. ARV Classification Results. Stacked bar chart showing the proportion and count of watersheds with BLM lands in the BSWI plan in each ARV class.

Section 5. Conclusions—High-Value Watersheds (HVWs) by Alternative

The ARV model examined all HUC6 watersheds with BLM lands in the planning area assessing different ecological attributes and assigned them ARV scores. These scores were classified into four groups using a SD classification scheme. The four categories of ARV scores were used in the Proposed BSWI RMP to vary by plan alternative the number of watersheds to be managed as HVWs as follows:

- Alternative A: Existing management has no HVWs.
- Alternative B: ARVs with a rating of High, Medium-High, and Medium were selected to be HVWs.
- Alternative C: ARVs with a rating of High and Medium-High were selected to be HVWs.
- Alternative D: ARVs with a rating of High were selected to be HVWs.
- Approved RMP/Alternative E: ARVs with a rating of High were selected to be HVWs.

Section 6. References

Williams, J. E., A. L. Hank, N. G. Gillespie, and W. T. Colyer. 2007. The conservation success index: synthesizing and communicating salmonid condition and management needs. *Fisheries* 32:477-492.

Appendix G: BLM Sensitive Species List

Eligibility Criteria from BLM 6840 - Special Status Species Manual (2008)

6840.06.2(A) *Species designated as Bureau sensitive must be native species that occur on BLM lands, and for which BLM has significant management capability to affect their conservation status. In addition, one of the following two criteria must also apply:*

- (1) There is information that a species is known or predicted to undergo a downward trend such that viability of the species or a distinct population segment of the species is at risk across all or a significant portion of its range, or*
- (2) The species depends on ecological refugia, specialized habitats or unique habitats, and there is evidence that such areas are threatened with alteration such that the continued viability of the species in that area would be at risk.*

Standardized Formula for Inclusion on Special Status Species List

A standardized formula for determining the BLM Special Status Species (SSS) list inclusion was used to increase transparency and repeatability of the process. However, not all information is published on species status population, trend, and geographic distribution, so some expert input through personal communication was used in situations where information is lacking and specialized knowledge is harbored by a BLM biologist, Alaska Department of Fish and Game (ADFG), or other partner.

SSS LIST CANDIDATE SCREENING FOR ANIMALS AND PLANTS: Does the species occur on BLM-managed land in a way BLM could have “*significant management capability to affect their conservation status*” either positively or negatively AND is the species in a downward trend OR does it rely on threatened unique habitats? If “yes”, the species is a candidate and it goes to the review process below, if “no”, end consideration of the species.

The process for candidate animals is as follows:

1. If the species is an Endangered Species Act Endangered, Threatened, Proposed, or Candidate species, or a species that has been delisted in the last five years, it is automatically on the BLM SSS List as a special status species
2. NatureServe G4 + S3 or G5 + S2 or higher = “Sensitive”
3. (G5 + S4) + (2 or more of the following: FWS Birds of Conservation Concern or ADFG Stewardship Species or Partners in Flight or Audubon Alaska or Yukon or Weiser 2018) = “Sensitive”
4. (G5 + S4) + Expert input = “Sensitive”
5. G5 + S4 = “Watchlist”
6. (G5 + S5) + other lists and known threats or declines (expert input) = “Watchlist”.

The process for candidate plants is as follows:

1. G1 or G2 or G3 = “Sensitive”, if not, then;
2. S1 = “Sensitive”, if not, then;
3. S2 or S3 = “Watchlist”, if not, then;
4. G3G4 = “Watchlist”.

Note that only “Sensitive” has official BLM status under 6840 policy. The “Watchlist” is a list of species that were candidates for “Sensitive” and did not warrant inclusion, but are recorded to document that process, raise awareness, and retain them for the next Special Status Species List review process. Note that unless otherwise specified, species with a range ranking (e.g. S1S2, G2G3) are rounded to the lower number, following BLM national practices.

BLM SENSITIVE ANIMALS (37)

Birds (22)

Scientific Name	Common Name
<i>Brachyramphus brevirostris</i>	Kittlitz's Murrelet
<i>Branta canadensis occidentalis</i>	Dusky Canada Goose
<i>Calcarius pictus</i>	Smith's Longspur
<i>Calidris alpina arctica</i>	Dunlin <i>arctica</i>
<i>Calidris canutus roselaari</i>	Red Knot
<i>Calidris ptilocnemis ptilocnemis</i>	Bering Sea (Pribilof Island) Rock Sandpiper
<i>Calidris subruficollis</i>	Buff-breasted Sandpiper
<i>Contopus cooperi</i>	Olive-sided Flycatcher
<i>Euphagus carolinus</i>	Rusty Blackbird
<i>Gavia adamsii</i>	Yellow-billed Loon
<i>Gavia stellata</i>	Red-throated Loon
<i>Limosa fedoa beringiae</i>	Marbled Godwit
<i>Limosa haemastica</i>	Hudsonian Godwit
<i>Limosa lapponica</i>	Bar-tailed Godwit
<i>Numenius phaeopus rufiventris</i>	Whimbrel
<i>Numenius borealis</i>	Eskimo Curlew (ESA E – presumed extinct)
<i>Numenius tahitiensis</i>	Bristle-thighed Curlew
<i>Onychoprion aleuticus</i>	Aleutian Tern
<i>Plectrophenax hyperboreus</i>	McKay's Bunting
<i>Poecile cinctus lathamii</i>	Gray-headed Chickadee
<i>Polysticta stelleri</i>	Steller's Eider (ESA T)
<i>Somateria fischeri</i>	Spectacled Eider (ESA T)

Mammals (4)¹

Scientific Name	Common Name
<i>Bison bison athabasca</i>	Wood Bison (ESA T, 10(j))
<i>Enhydra lutris kenyoni</i>	Northern Sea Otter (ESA T)
<i>Odobenus rosmarus divergens</i>	Pacific Walrus
<i>Ursus maritimus</i>	Polar Bear (ESA T, CH)

Invertebrates (8)

Scientific Name	Common Name
<i>Acentrella feropagus</i>	Mayfly (no common name)
<i>Alaskaperla ovibovis</i>	Alaska Sallfly
<i>Bombus bohemicus</i>	Ashton Cuckoo Bumble Bee, Gypsy Cuckoo Bumble Bee
<i>Bombus distinguendus</i>	Northern Yellow Bumble Bee, Great Yellow Bumble Bee
<i>Bombus kluanensis</i>	Bumble Bee (no common name)
<i>Bombus perplexus</i>	Confusing Bumble Bee
<i>Bombus suckleyi</i>	Suckley's Cuckoo Bumble Bee
<i>Rhithrogena ingalik</i>	Alaska Endemic Mayfly

Fish (3)

Scientific Name	Common Name
<i>Lampetra alaskensis</i>	Alaskan Brook Lamprey
<i>Onchorhynchus mykiss</i>	Steelhead (Gulkana River)
<i>Salvelinus alpinus</i>	Arctic Char (Kigluaik Mtns)

ESA – Endangered Species Act, E – Endangered, T – Threatened, 10(j) – ESA section 10(j) experimental population, CH – ESA Critical Habitat

¹ Note that numerous ESA and MMPA marine mammal species may occur in areas where BLM has management authority of marine areas or may be impacted by offsite effects related to BLM actions (e.g., marine vessel traffic). These species are not included on this list but would necessitate additional BLM impacts analysis.

BLM SENSITIVE PLANTS (51)

Scientific Name	Common Name	Family
<i>Antennaria densifolia</i>	Denseleaf Pussytoes	Asteraceae
<i>Arnica lonchophylla</i> ssp. <i>lonchophylla</i> (<i>A. lonchophylla</i>)	Longleaf Arnica	Asteraceae
<i>Artemisia globularia</i> var. <i>lutea</i>	Purple Wormwood	Asteraceae
<i>Artemisia senjavinensis</i>	Arctic Wormwood	Asteraceae
<i>Botrychium spathulatum</i>	Spoon-leaf Moonwort	Ophioglossaceae
<i>Carex laxa</i>	Weak Sedge	Cyperaceae
<i>Carex parryana</i>	Parry Sedge	Cyperaceae
<i>Claytonia ogilviensis</i>	Ogilvie Mountain Springbeauty	Montiaceae
<i>Cochlearia sessilifolia</i>	Sessileleaf Scurvygrass	Brassicaceae
<i>Cryptantha shackletteana</i>	Shacklette's Cryptantha	Boraginaceae
<i>Douglasia arctica</i> (<i>Androsace americana</i>)	Mackenzie's River Douglasia	Primulaceae
<i>Douglasia beringensis</i> (<i>Androsace beringensis</i>)	Arctic Dwarf-Primrose	Primulaceae
<i>Draba micropetala</i>	Small-flowered Draba	Brassicaceae
<i>Draba murrayi</i>	Kathul Mountain Draba	Brassicaceae
<i>Draba ogilviensis</i>	Ogilvie Range Draba	Brassicaceae
<i>Draba pauciflora</i>	Fewflower Draba	Brassicaceae
<i>Erigeron muirii</i>	Muir's fleabane	Asteraceae
<i>Gentianopsis richardsonii</i>	no common name	Gentianaceae
<i>Juncus articulatus</i>	Jointed Rush	Juncaceae
<i>Mertensia drummondii</i>	Drummond's Bluebells	Boraginaceae
<i>Micranthes nelsoniana</i> ssp. <i>insularis</i>	no common name	Saxifragaceae
<i>Micranthes porsildiana</i> (<i>M. nelsoniana</i> var. <i>porsildiana</i>)	Porsild's Saxifrage	Saxifragaceae
<i>Montia vassilievii</i> ssp. <i>vassilievii</i>	Bostock's Minerslettuce	Montiaceae
<i>Orobanche uniflora</i>	Naked Broom-rape	Orobanchaceae
<i>Oxytropis kokrinensis</i>	Kokrines Locoweed	Fabaceae
<i>Papaver gorodkovii</i>	Arctic Poppy	Papaveraceae
<i>Parrya nauruaq</i>	Naked-stemmed Wallflower	Brassicaceae
<i>Pedicularis hirsuta</i>	Hairy Lousewort	Orobanchaceae
<i>Phacelia mollis</i>	Soft Phacelia	Hydrophyllaceae

Scientific Name	Common Name	Family
<i>Physaria calderi</i>	Calder's Bladderpod	Brassicaceae
<i>Pleuropogon sabinei</i>	False Semaphoregrass	Poaceae
<i>Poa hartzii ssp. alaskana</i>	Alaskan Bluegrass	Poaceae
<i>Poa macrantha</i>	Seashore Bluegrass	Poaceae
<i>Poa porsildii</i>	Porsild's Bluegrass	Poaceae
<i>Poa sublanata</i>	no common name	Poaceae
<i>Podistera yukonensis</i>	Yukon Podistera	Apiaceae
<i>Potentilla fragiformis</i>	Strawberry Cinquefoil	Rosaceae
<i>Primula tschuktschorum</i>	Chukchi Primrose	Primulaceae
<i>Puccinellia banksiensis</i>	no common name	Poaceae
<i>Puccinellia vaginata</i>	Sheathed Alkaligrass	Poaceae
<i>Ranunculus pacificus</i>	Pacific Buttercup	Ranunculaceae
<i>Ranunculus ponojensis</i>	no common name	Ranunculaceae
<i>Ranunculus turneri ssp. turneri</i>	no common name	Ranunculaceae
<i>Romanzoffia unalaschcensis</i>	Alaska Mistmaiden	Hydrophyllaceae
<i>Rumex aureostigmaticus</i>	no common name	Polygonaceae
<i>Rumex beringensis</i>	Bering Sea Dock	Polygonaceae
<i>Rumex krausei</i>	Krause's Sorrel	Polygonaceae
<i>Smelowskia johnsonii</i>	no common name	Brassicaceae
<i>Smelowskia pyriformis</i>	Pearshaped Smelowskias	Brassicaceae
<i>Symphyotrichum pygmaeum</i>	Pygmy Aster	Asteraceae
<i>Symphyotrichum yukonense</i>	Yukon Aster	Asteraceae

Plant species scientific names follow Alaska Center for Conservation Science (ACCS), and include synonyms from Integrated Taxonomic Information System (ITIS). Common names from ITIS and NatureServe.

Note that the entire species is included on the list unless there is a subspecies or variety specifically noted in the scientific name or a run (for fish) noted in the common name. The taxonomy of species and subspecies varies by taxa and was recommended by various Alaska-based taxa experts.

The BLM SSS list is used for BLM planning purposes in order to avoid and minimize potential negative impacts of a proposed project on SSS, and to prevent the need to list these species under the Endangered Species Act. The BLM also uses the list to raise awareness of rare and under-surveyed species and to prompt BLM staff to collect more data, which helps better understand the status and distribution of these species.

WATCHLIST ANIMALS (30)**Birds (12)**

Scientific Name	Common Name
<i>Asio flammeus</i>	Short-eared Owl
<i>Aquila chrysaetos</i>	Golden Eagle
<i>Chen canagica</i>	Emperor Goose
<i>Cygnus buccinator</i>	Trumpeter Swan
<i>Dendragapus obscurus</i>	Blue (Sooty) Grouse
<i>Dendroica striata</i>	Blackpoll Warbler
<i>Dendroica townsendi</i>	Townsend's Warbler
<i>Falco rusticolus</i>	Gyr Falcon
<i>Limnodromus griseus</i>	Short-billed Dowitcher
<i>Pluvialis dominica</i>	American Golden Plover
<i>Riparia riparia</i>	Bank Swallow
<i>Selasphorus rufus</i>	Rufous Hummingbird

Mammals (5)

Scientific Name	Common Name
<i>Lepus othus</i>	Alaska Hare
<i>Mustela americana</i>	American Marten (Kenai subspecies)
<i>Myotis lucifugus</i>	Little Brown Bat
<i>Spermophilus parryii</i> ² (<i>Uroditellus parryi</i>)	Arctic Ground Squirrel ²
<i>Synaptomys borealis</i>	Northern Bog Lemming

Invertebrates (9)

Scientific Name	Common Name
<i>Oeneis alpina</i>	Eskimo Arctic
<i>Bombus bifarius</i>	Two Form Bumble Bee
<i>Bombus centralis</i>	Central Bumble Bee
<i>Bombus insularis</i>	Indiscriminate Cuckoo Bumble Bee
<i>Bombus neoboreus</i>	Active Bumble Bee
<i>Bombus occidentalis</i>	Western Bumble Bee

² The 2010 BLM list had Osgood's Arctic Ground Squirrel (*Spermophilus parryii osgoodi*) listed as Sensitive. Due to uncertain subspecies taxonomy and range differentiation, the entire species has been shifted to the Watchlist and should be reviewed as more information becomes available.

Scientific Name	Common Name
<i>Bombus sitkensis</i>	Sitka Bumble Bee
<i>Callophrys augustinus</i>	Brown Elfin
<i>Callophrys polios</i>	Hoary Elfin

Any of the 374 Alaska endemic invertebrates when found on BLM-managed lands ³

Fish (4)

Scientific Name	Common Name
<i>Oncorhynchus keta</i>	Chum Salmon (Clear Creek)
<i>Oncorhynchus tshawytscha</i>	Chinook Salmon (Beaver Creek)
<i>Oncorhynchus tshawytscha</i>	Chinook Salmon (Norton Sound)
<i>Oncorhynchus tshawytscha</i>	Chinook Salmon (Yukon Riv.)

WATCHLIST PLANTS (39)

Scientific Name	Common Name	Family
<i>Agoseris glauca</i>	Pale Dandelion	Asteraceae
<i>Alyssum obovatum</i>	American Madwort	Brassicaceae
<i>Ambrosia chamissonis</i>	Silver Bur Ragweed	Asteraceae
<i>Arenaria longipedunculata</i>	Longstem Sandwort	Caryophyllaceae
<i>Artemisia tanacetifolia</i>	no common name	Asteraceae
<i>Astragalus robbinsii</i> var. <i>harringtonii</i>	Harold's Milkvetch	Fabaceae
<i>Botrychium alaskense</i>	Alaska Moonwort	Ophioglossaceae
<i>Cardamine blaisdellii</i>	Small-leaf Bittercres	Brassicaceae
<i>Carex deflexa</i> var. <i>deflexa</i>	Northern Sedge	Cyperaceae
<i>Carex peckii</i>	Peck's Sedge	Cyperaceae
<i>Carex phaeocephala</i>	Dunehead Sedge	Cyperaceae
<i>Castilleja hyetophila</i>	Coastal Red Indian Paintbrush	Orobanchaceae
<i>Cypripedium parviflorum</i> var. <i>exiliens</i>	no common name	Orchidaceae
<i>Draba densifolia</i>	Denseleaf Draba	Brassicaceae
<i>Draba macounii</i>	Macoun's Draba	Brassicaceae
<i>Draba mulliganii</i>	Mulligan's Draba	Brassicaceae
<i>Erigeron porsildii</i>	Largeflower Fleabane	Asteraceae

³ These species have been identified by experts at University of Alaska Fairbanks and have been recommended for inclusion by ADFG. Further coordination with experts will work to reduce this list to species potentially impacted by BLM actions. For the species list, see the [Arctos Database](#).

Scientific Name	Common Name	Family
<i>Eriogonum flavum</i> var. <i>aquilinum</i>	Alpine Golden Buckwheat	Polygonaceae
<i>Erysimum angustatum</i> (<i>Erysimum capitatum</i> var. <i>capitatum</i>)	Dawson Wallflower	Brassicaceae
<i>Gentianella propinqua</i> ssp. <i>aleutica</i>	Fourpart Dwarf Gentian	Gentianaceae
<i>Gentianopsis barbata</i> ssp. <i>barbata</i>	no common name	Gentianaceae
<i>Juncus tenuis</i>	Field Rush	Juncaceae
<i>Koeleria asiatica</i>	Eurasian Junegrass	Poaceae
<i>Micranthes nudicaulis</i> ssp. <i>nudicaulis</i>	no common name	Saxifragaceae
<i>Oxygraphis glacialis</i>	Kamchatka Buttercup	Ranunculaceae
<i>Oxytropis arctica</i> var. <i>barnebyana</i>	Barneby's Locoweed	Fabaceae
<i>Phyllospadix serrulatus</i>	Toothed Surfgrass	Zosteraceae
<i>Plagiobothrys orientalis</i>	Oriental Popcornflower	Boraginaceae
<i>Potamogeton subsibiricus</i>	Yenisei River Pondweed	Potamogetonaceae
<i>Potentilla drummondii</i>	Drummond's Cinquefoil	Rosaceae
<i>Potentilla stipularis</i>	Stipulated Cinquefoil	Rosaceae
<i>Puccinellia vahliana</i>	Vahl's Alkaligrass	Poaceae
<i>Puccinellia wrightii</i> ssp. <i>wrightii</i>	no common name	Poaceae
<i>Ranunculus camissonis</i> (<i>R. glacialis</i> var. <i>camissonis</i>)	Glacier Buttercup	Ranunculaceae
<i>Rosa woodsii</i> ssp. <i>woodsii</i>	Woods' Rose	Rosaceae
<i>Salix planifolia</i>	Tea-leaf Willow	Salicaceae
<i>Saxifraga adscendens</i> ssp. <i>oregonensis</i>	Wedgeleaf Saxifrage	Saxifragaceae
<i>Saxifraga rivularis</i> ssp. <i>arctolitoralis</i>	Weak Saxifrage	Saxifragaceae
<i>Vicia americana</i>	American Vetch	Fabaceae

Plant species scientific names follow Alaska Center for Conservation Science (ACCS), and include synonyms from Integrated Taxonomic Information System (ITIS). Common names from ITIS and NatureServe.

Appendix H: Parcels Available for Exchange

Appendix H: Parcels Available for Exchange

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 parcels within the BSWI planning area that meet one or more of the Federal Land Policy Management Act (FLPMA) Section 203 disposal criteria, Section 206 exchange criteria, or Alaska-specific exchange under the Alaska National Interest Lands Conservation Act (ANILCA) or Alaska Native Claims Settlement Act (ANCSA). This is because the BLM may only sell or exchange public land using this FLPMA authority if the BLM has first found, through land use planning, that the parcel meets one or more of these criteria:

- (1) Such tract because of its location or other characteristics is difficult and uneconomic to manage as part of the public lands, and is not suitable for management by another federal department or agency; or
- (2) Such tract was acquired for a specific purpose and the tract is no longer required for that or any other federal purpose; or
- (3) Disposal of such tract will serve important public objectives, including but not limited to, expansion of communities and economic development, which cannot be achieved prudently or feasibly on land other than public land and which outweigh other public objectives and values, including, but not limited to, recreation and scenic values, which would be served by maintaining such tract in federal ownership.

The BLM would strive to process mutually benefiting public interest land exchanges. When considering public interest, full consideration shall be given to efficient management of public lands and achievement of important objectives, including protection of fish and wildlife, cultural resources, and wilderness and aesthetic values; enhancement of recreational opportunities; consolidation of mineral and timber holdings for the most logical and efficient management; expansion of communities; promotion of multiple use values; and fulfillment of public needs. Exchanges are conducted in accordance with 43 Code of Federal Regulations (CFR) Part 2200 unless the application of the regulations to exchanges made under ANCSA or ANILCA conflict with these acts (43 CFR 2200.0-7(c)).

The BLM has identified three categories of public land in the planning area that meet one or more of the above FLPMA disposal or exchange criteria or an exchange under ANILCA or ANCSA. For purposes of this Approved Resource Management Plan (RMP), these criteria were used to identify parcels available for exchange. No parcels were identified for disposal.

- Category 1 includes unselected lands in BLM ownership adjacent to State or Native-patented lands that are 1.5 townships (34,560 acres) or smaller that the BLM would consider for exchange.
- Category 2 includes State or Native-selected lands that are 1.5 townships (34,560 acres) or smaller that, if relinquished or rejected, the BLM would consider for exchange.
- Category 3 includes unselected lands in BLM ownership that are 1.5 townships (34,560 acres) or smaller that are adjacent to State or Native-selected land that, if conveyed, the BLM would consider for exchange.

The parcels considered for exchange are listed in the tables on the following pages and shown on the maps also included in this appendix.

All land tenure decisions would be consistent with Secretarial Order 3373, Evaluating Public Access in Bureau of Land Management (BLM) Public Land Disposals and Exchanges, and BLM Information Bulletin No. 2020-010, which requires documentation of impacts to recreational access as well as a comparison of acres disposed of and exchanged since 2017.

In determining whether a parcel of land identified for possible exchange is consistent with Secretarial Order 3373 and Information Bulletin No. 2020-010, the BLM has indicated whether or not a specific parcel being proposed for exchange has existing public access by road, trail, water, easement, or right-of-way (ROW) to document public access as a value criteria for possible retention on a specific parcel of land. BLM has used existing data to make this public access determination. Existing data include but are not limited to known trail routes, ANCSA 17(b) easements, Iditarod National Historic Trail segments, authorized ROWs, National Hydrography Dataset stream data, and special recreation permits.

The BLM acknowledges that all parcels identified for potential exchange currently have or are available for dispersed recreational and subsistence use and access. Access by the general public to public lands within the planning area takes place for a variety of recreational pursuits and transportation and can be seasonal. BLM lands are generally available for recreational use and access by snowmobile, boat, all-terrain vehicle, utility terrain vehicle, fixed-wing aircraft, and rotary aircraft (helicopter). Additionally, ANILCA ensures rural residents have reasonable access on public lands to access subsistence resources with snowmobiles, motorboats, and other means of surface transportation traditionally employed for such purposes subject to reasonable regulations.

Parcels Available for Exchange

ID	Category	Meridian	MTR	Township, Range	Section(s)	Number Sections	Acres in Sections	Actual Acres	Case	Public Access on Parcel under SO 3373
PD001	1	Kateel	K024S018W	T24S, R18W	25, 26, 35	3	1,920	1,880.00	AKAA 091175	No
PD002	1	Kateel	K025S018W	T25S, R18W	1 to 2, 11 to 14	6	3,840	3,840.00	AKAA 091175	No
PD002	1	Kateel	K025S017W	T25S, R17W	7 to 30, 33 to 36	28	17,920	17,761.24		No
PD002	1	Kateel	K025S016W	T25S, R16W	25 to 36	12	7,680	7,607.84		No
PD003	1	Seward	S031N058W	T31N, R58W	3 to 10, 17 to 20, 30 to 31	14	8,960	8,066.13	AKFF 085667	Yes
PD004	1	Seward	S030N059W	T30N, R59W	1, 12	2	1,280	1,171.42	AKFF 085667	Yes
PD005	1	Seward	S030N059W	T30N, R59W	3 to 10	8	5,120	3,798.93	AKFF 085667	Yes
PD006	2	Seward	S031N057W	T31N, R57W	7, 18	2	1,280	1,488.55	AKAA 00810305	Yes
PD007	2	Kateel	K029S007W	T29S, R7W	2	1	640	62.10	AKAA 00810305	Yes
PD010	1	Seward	S031N056W	T31N, R56W	1 to 3, 10 to 12	6	3,840	3,514.18	AKFF 085667	Yes
PD011	1	Seward	S031N056W	T31N, R56W	17 to 36	20	12,800	11,617.44	AKFF 085667	Yes
PD012	1	Seward	S030N057W	T30N, R57W	1 to 5, 8 to 36	34	21,760	22,603.24	AKFF 085667	Yes
PD013	1	Seward	S029N058W	T29N, R58W	1, 12, 13, 24, 25, 36	6	3,840	3,662.47	AKFF 085667	Yes
PD014	2	Seward	S028N060W	T28N, R60W	2, 11	2	1,280	1,094.30	AKAA 00810305	Yes
PD016	3	Kateel	K023S006W	T23S, R6W	25, 36	2	1,280	1,280.00		No
PD016	3	Kateel	K024S006W	T24S, R6W	1, 12 to 14, 23 to 26, 34 to 36	11	7,040	7,040.00		No
PD017	3	Kateel	K022S005W	T22S, R5W	27, 34	2	1,280	1,280.00	AKAA 00810343	No
PD019	2	Kateel	K026S006W	T26S, R6W	3, 10, 15, 22, 27, 34	6	3,840	3,840.00	AKAA 00810349	No
PD315	2	Kateel	K027S006W	T27S, R6W	3, 10, 15	3	1,920	1,912.65	AKAA 00810351	No
PD020	2	Kateel	K027S006W	T27S, R6W	20, 29, 32	3	1,920	1,920.00	AKAA 012873	No
PD021	2	Seward	S032N054W04	T32N, R54W	4	1	640	513.00	AKAA 00810305	No
PD022	2	Seward	S032N054W15	T32N, R54W	15	1	640	618.00	AKAA 00810305	No
PD023	2	Seward	S032N054W	T32N, R54W	28 to 29	2	1,280	1,264.35	AKAA 00810305	No
PD025	1	Seward	S020N069W	T20N, R69W	1 to 4	4	2,560	2,560.00	AKFF 085667	No
PD026	2	Seward	S020N069W05	T20N, R69W	5	1	640	640.00	AKFF 085667	No
PD027	2	Seward	S020N068W	T20N, R68W	1, 12	2	1,280	1,280.00	AKAA 076404	Yes
PD201	2	Seward	S020N069W06	T20N, R69W	6	1	640	598.10	AKAA 087834	Yes

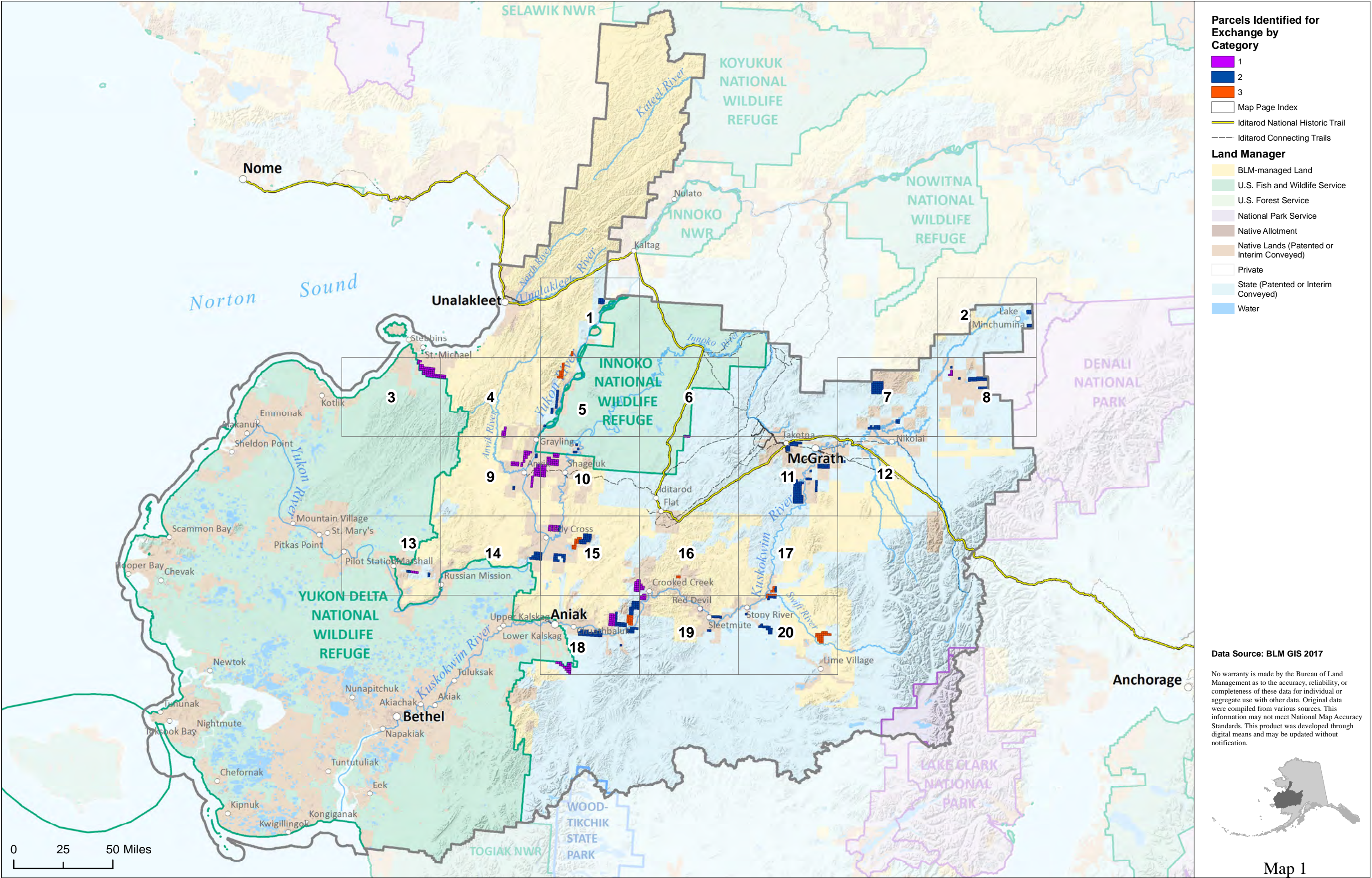
ID	Category	Meridian	MTR	Township, Range	Section(s)	Number Sections	Acres in Sections	Actual Acres	Case	Public Access on Parcel under SO 3373
PD240	2	Seward	S023N058W	T23N, R58W	13 to 16, 20 to 36	21	13,440	9,036.54	AKAA 076992	Yes
PD244	2	Seward	S023N056W	T23N, R56W	13 to 20, 23 to 25, 29 to 33, 36	17	10,880	8,771.97	AKAA 076546	Yes
PD245	3	Seward	S024N055W	T24N, R55W	1, 2, 11, 12, 14, 22, 23, 26, 27	9	5,760	5,677.03	AKFF 085667	Yes
PD245	3	Seward	S025N054W	T25N, R54W	34, 35	2	1,280	1,280.00	AKAA 00810364	No
PD247	1	Seward	S025N056W	T25N, R56W	2 to 11, 14 to 18	15	9,600	7,839.99	AKFF 085667	Yes
PD2467	2	Seward	S025N056W	T25N, R56W	1, 12, 13	3	1,920	1,577.11	AKAA 076578	Yes
PD248	1	Seward	S033N060W	T33N, R60W	12, 13, 23 to 26, 35, 36	8	5,120	5,120.00		No
PD249	1	Kateel	K029S006E	T29S, R6E	1, 2, 3	3	1,920	1,920.00		No
PD250	2	Kateel	K018S003W	T18S, R3W	1, 2, 3, 10 to 15	9	5,760	5,760.00		No
PD252	2	Seward	S017N054W	T17N, R54W	20, 22, 23, 25 to 36	15	9,600	9,478.41	AKAA 012892	Yes
PD252	2	Seward	S017N053W	T17N, R53W	21, 22, 23, 25 to 36	15	9,600	9,529.20	AKAA 021474	Yes
PD253	1	Seward	S018N052W	T18N, R52W	1, 2, 3, 10 to 15, 22 to 27, 34, 35, 36	18	11,520	11,520.00		Potentially ¹
PD254	2	Seward	S018N051W	T18N, R51W	6, 7, 18, 19	4	2,560	2,488.52	AKAA 074571	No
PD254	2	Seward	S019N051W	T19N, R51W	31	1	640	617.68		No
PD255	2	Seward	S018N051W	T18N, R51W	25 to 36	12	7,680	7,655.00	AKAA 070152	No
PD256	1	Seward	S014N057W	T14N, R57W	13, 14	2	1,280	1,280.00	AKAA 076495	No
PD256	1	Seward	S014N056W	T14N, R56W	18, 19, 20	3	1,920	1,920.00	AKAA 076494	No
PD257	1	Seward	S014N056W	T14N, R56W	13, 14, 23 to 28, 34, 35, 36	11	7,040	7,040.00	AKAA 061005	Yes
PD257	1	Seward	S013N056W	T13N, R56W	1, 2, 12	3	1,920	1,920.00		No
PD258	2	Seward	S017N050W	T17N, R50W	1 to 4, 7 to 10, 15 to 18	12	7,680	7,665.13	AKAA 012898	Yes
PD259	2	Seward	S016N051W19	T16N, R51W	19	1	640	604.00	AKFF 014900 A	No
PD260	2	Seward	S025N053W	T25N, R53W	19 to 22, 27 to 34	12	7,680	7,680.00	AKAA 00810363	No
PD260	2	Seward	S024N054W	T24N, R54W	1 to 10	10	6,400	6,400.00	AKAA 00810365	Yes
PD261	3	Seward	S018N050W	T18N, R50W	4 to 9, 16 to 21, 28, 29	14	8,960	8,888.56		No
PD262	2	Seward	S019N050W	T19N, R50W	1 to 4, 9 to 17, 20, 21, 28, 29, 32, 33	19	12,160	12,160.00	AKAA 021483	No
PD262	2	Seward	S020N050W	T20N, R50W	33 to 36	4	2,560	2,560.00	AKAA 074568	No
PD263	1	Seward	S020N049W	T20N, R49W	8, 9, 16 to 21	8	5,120	4,979.57		Yes
PD264	1	Seward	S021N049W	T21N, R49W	4, 5, 7, 8, 9, 15 to 23, 26 to 33	22	14,080	14,057.00		Yes

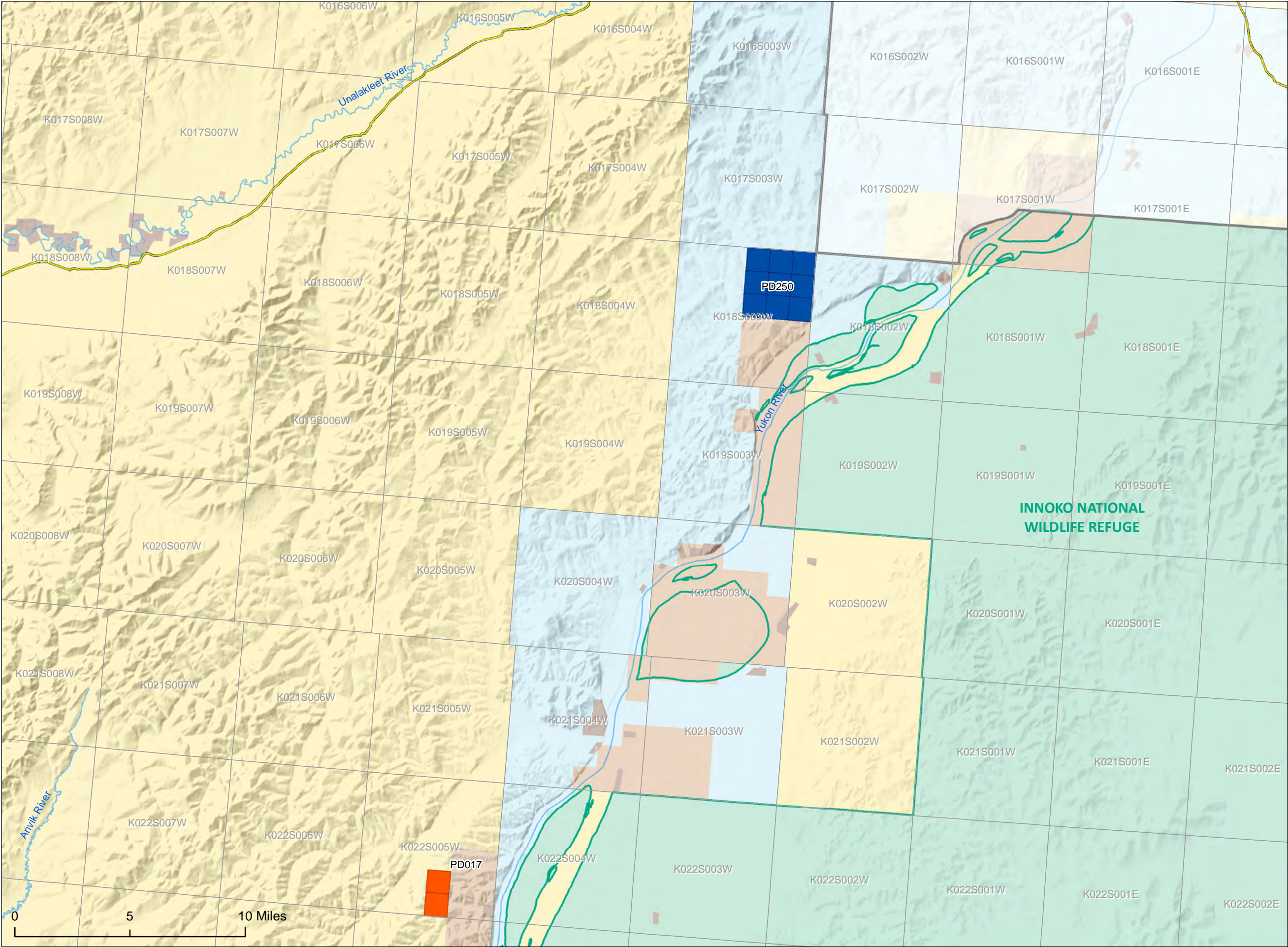
ID	Category	Meridian	MTR	Township, Range	Section(s)	Number Sections	Acres in Sections	Actual Acres	Case	Public Access on Parcel under SO 3373
PD265	3	Seward	S022N046W	T22N, R46W	22, 23	2	1,280	1,280.00		No
PD266	2	Seward	S019N044W	T19N, R44W	5 to 8	4	2,560	1,881.76	AKAA 086371	Yes
PD267	2	Seward	S019N043W	T19N, R43W	25 to 29	5	3,200	3,200.00	AKFF 014936 A	Yes
PD268	2	Seward	S018N044W36	T18N, R44W	36	1	640	640.00	AKFF 014936 A	Yes
PD268	2	Seward	S018N043W31	T18N, R43W	31	1	640	628.39	AKFF 014936A2	No
PD269	2	Seward	S019N040W18	T19N, R40W	18	1	640	488.94	AKAA 012894	Yes
PD270	2	Seward	S018N039W	T18N, R39W	9, 13 to 17, 24	7	4,480	4,041.69	AKFF 014838A2	Yes
PD270	2	Seward	S018N038W	T18N, R38W	18, 19, 20	3	1,920	1,566.51	AKAA 021475	Yes
PD271	2	Seward	S018N038W	T18N, R38W	29 to 32	4	2,560	2,237.96	AKAA 021475	Yes
PD272	3	Seward	S021N038W	T21N, R38W	2, 11, 14, 15	4	2,560	2,340.18	AKAA 076405	Yes
PD273	2	Seward	S021N038W	T21N, R38W	1, 12, 13	3	1,920	1,880.00	AKAA 076405	No
PD274	3	Seward	S021N038W	T21N, R38W	25 to 29, 32	6	3,840	3,633.00		Yes
PD275	2	Seward	S021N038W	T21N, R38W	33 to 36	4	2,560	2,560.00	AKFF 014838A2	No
PD275	2	Seward	S020N039W01	T20N, R39W	1	1	640	640.00	AKAA 076405	No
PD276	3	Seward	S018N034W	T18N, R34W	25, 26, 27, 31 to 36	9	5,760	5,760.00	AKAA 076161	No
PD276	3	Seward	S018N033W	T18N, R33W	31, 32	2	1,280	1,280.00	AKAA 076160	No
PD276	3	Seward	S017N034W	T17N, R34W	3 to 6, 8, 9, 10, 15, 16, 17, 21, 22	12	7,680	7,680.00	AKAA 076393	No
PD281	2	Kateel	K029S015E	T29S, R15E	2, 3	2	1,280	1,124.32	AKAA 00810304	Yes
PD282	2	Seward	S034N035W	T34N, R35W	31 to 36	6	3,840	3,143.02	AKAA 021571	Yes
PD283	2	Seward	S033N035W	T33N, R35W	3 to 6	4	2,560	2,496.30	AKAA 00810303	Yes
PD284	2	Seward	S033N036W	T33N, R36W	11 to 14, 23, 24	6	3,840	3,389.68	AKAA 021572	Yes
PD285	2	Seward	S032N031W	T32N, R31W	17, 18	2	1,280	977.00	AKAA 076309	No
PD286	2	Seward	S032N033W	T32N, R33W	25 to 36	12	7,680	7,609.24	AKAA 021550	Yes
PD287	2	Seward	S031N034W09	T31N, R34W	9	1	640	639.99	AKAA 021535	No
PD288	2	Seward	S031N034W	T31N, R34W	31 to 33	3	1,920	1,567.55	AKAA 021535	Yes
PD289	2	Seward	S030N035W	T30N, R35W	5 to 10, 15 to 22, 27 to 34	22	14,080	13,959.00	AKAA 021523	Yes
PD290	2	Seward	S030N035W11	T30N, R35W	11	1	640	625.00	AKAA 00810397	No
PD291	2	Seward	S030N034W	T30N, R34W	1, 12, 13, 24, 25, 36	6	3,840	3,840.00	AKAA 00810371	No

ID	Category	Meridian	MTR	Township, Range	Section(s)	Number Sections	Acres in Sections	Actual Acres	Case	Public Access on Parcel under SO 3373
PD292	2	Seward	S029N035W	T29N, R35W	3 to 10, 14 to 23, 26 to 35	28	17,920	17,886.00	AKAA 00810372	No
PD293	2	Kateel	K027S022E	T27S, R22E	25 to 27, 29, 31 to 36	10	6,400	4,395.93	AKFF 014906 A	Yes
PD294	2	Kateel	K027S024E	T27S, R24E	9, 10, 15, 16	4	2,560	2,204.93	AKFF 014906 A	Yes
PD295	2	Kateel	K022S028E26	T22S, R28E	26	1	640	530.44	AKAA 00810301	Yes
PD296	1	Kateel	K023S028E	T23S, R28E	2, 11, 14, 15	4	2,560	2,499.50	AKAA 012630	Yes
PD297	2	Kateel	K023S029E28	T23S, R29E	28	1	640	637.61	AKAA 00810301	Yes
PD298	2	Kateel	K023S030E	T23S, R30E	26 to 29, 32 to 35	8	5,120	5,161.53	AKAA 021319	Yes
PD298	2	Fairbanks	F017S028W	T17S, R28W	1 to 12	12	7,680	7,405.45	AKAA 012644	No
PD299	2	Fairbanks	F017S028W	T17S, R28W	32 to 36	5	3,200	3,137.17	AKAA 012644	No
PD300	2	Kateel	K024S022E	T24S, R22E	1 to 36	36	23,040	23,040.00	AKAA 00810309	Potentially ²
PD301	2	Fairbanks	F011S023W	T11S, R23W	19 to 21, 28 to 30	6	3,840	3,808.00	AKAA 021220	No
PD302	2	Fairbanks	F012S023W	T12S, R23W	28 to 33	6	3,840	3,578.00	AKAA 076554	Yes

Notes:

- 1) Existing data show ANCSA 17(b) trail easement EIN 18, C4, C5 stops just shy of Section 3 and is likely intended to access parcel ID PD253.
- 2) Existing data show ANCSA 17(b) trail easement EIN 115 C5 stops just shy of reaching Section 12 and is likely intended for access to parcel ID PD300 (along Nixon Fork).





Parcels Identified for Exchange by Category

- 2
- 3
- Iditarod National Historic Trail
- Iditarod Connecting Trails

Land Manager

- BLM-managed Land
- U.S. Fish and Wildlife Service
- Native Allotment
- Native Lands (Patented or Interim Conveyed)
- State (Patented or Interim Conveyed)

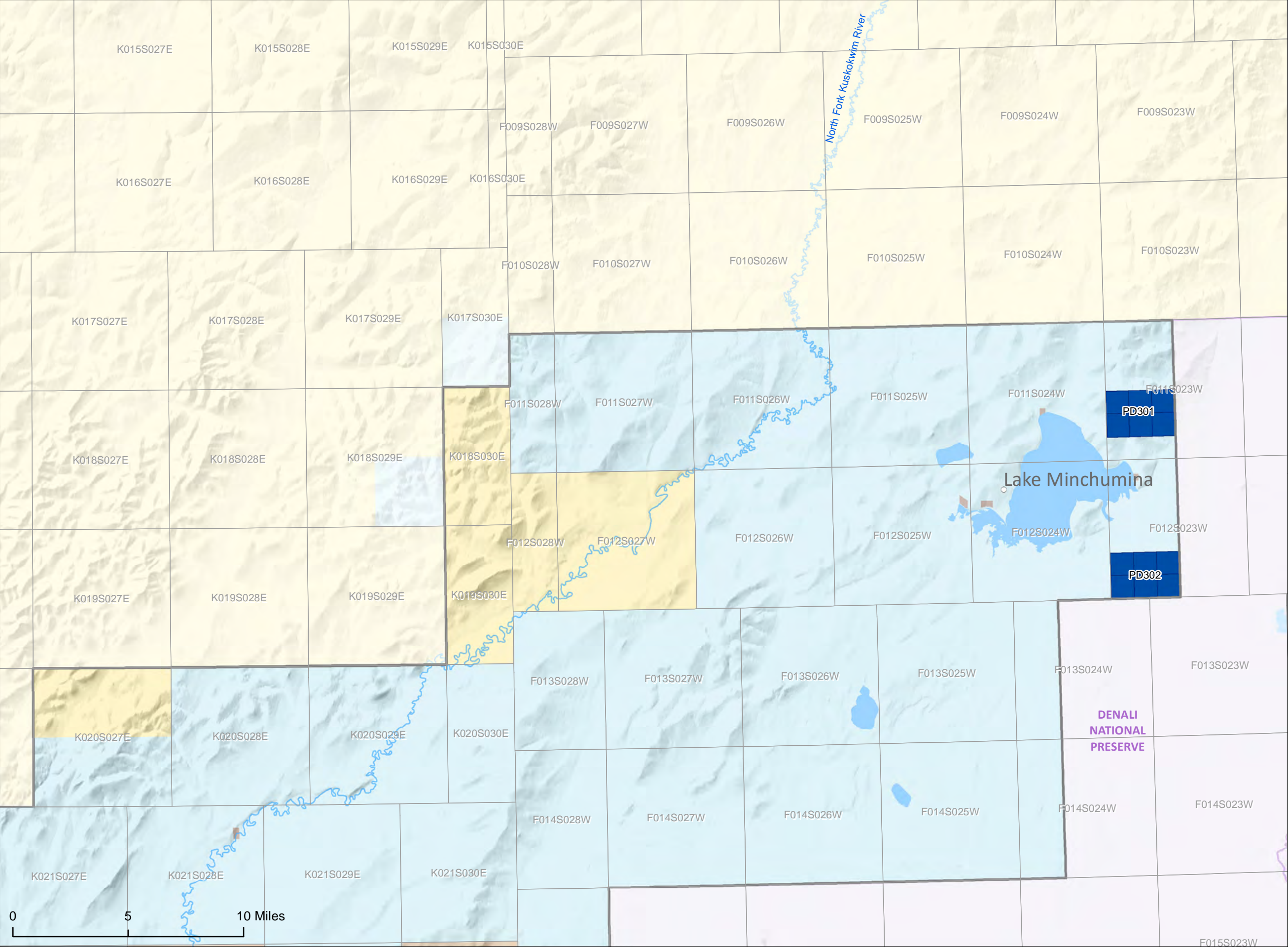
INNOKO NATIONAL WILDLIFE REFUGE

Data Source: BLM GIS 2017

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.



0 5 10 Miles



Parcels Identified for Exchange by Category

2

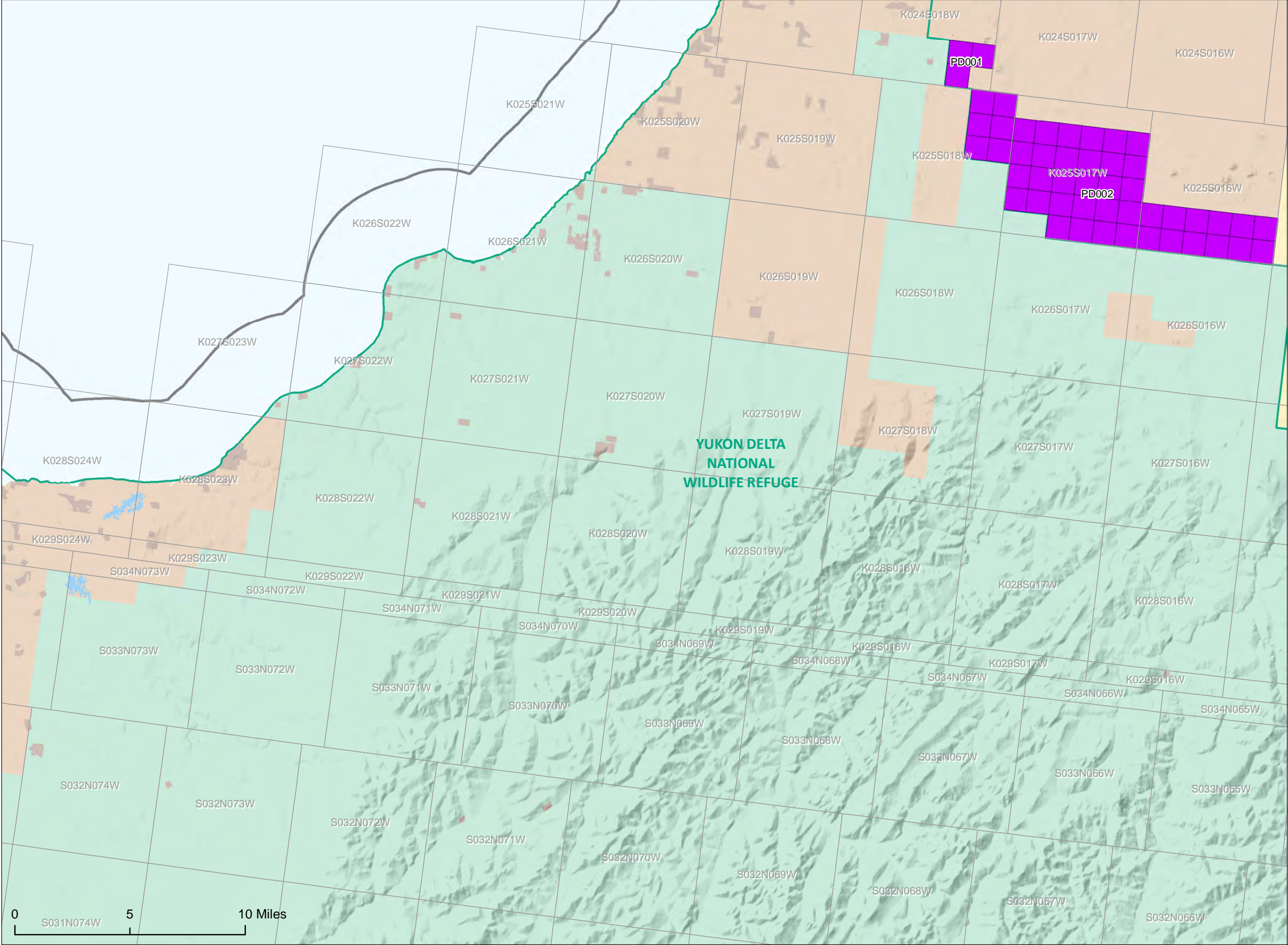
Land Manager

- BLM-managed Land
- National Park Service
- Native Allotment
- Native Lands (Patented or Interim Conveyed)
- State (Patented or Interim Conveyed)
- Water

Data Source: BLM GIS 2017

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.





Parcels Identified for Exchange by Category

1

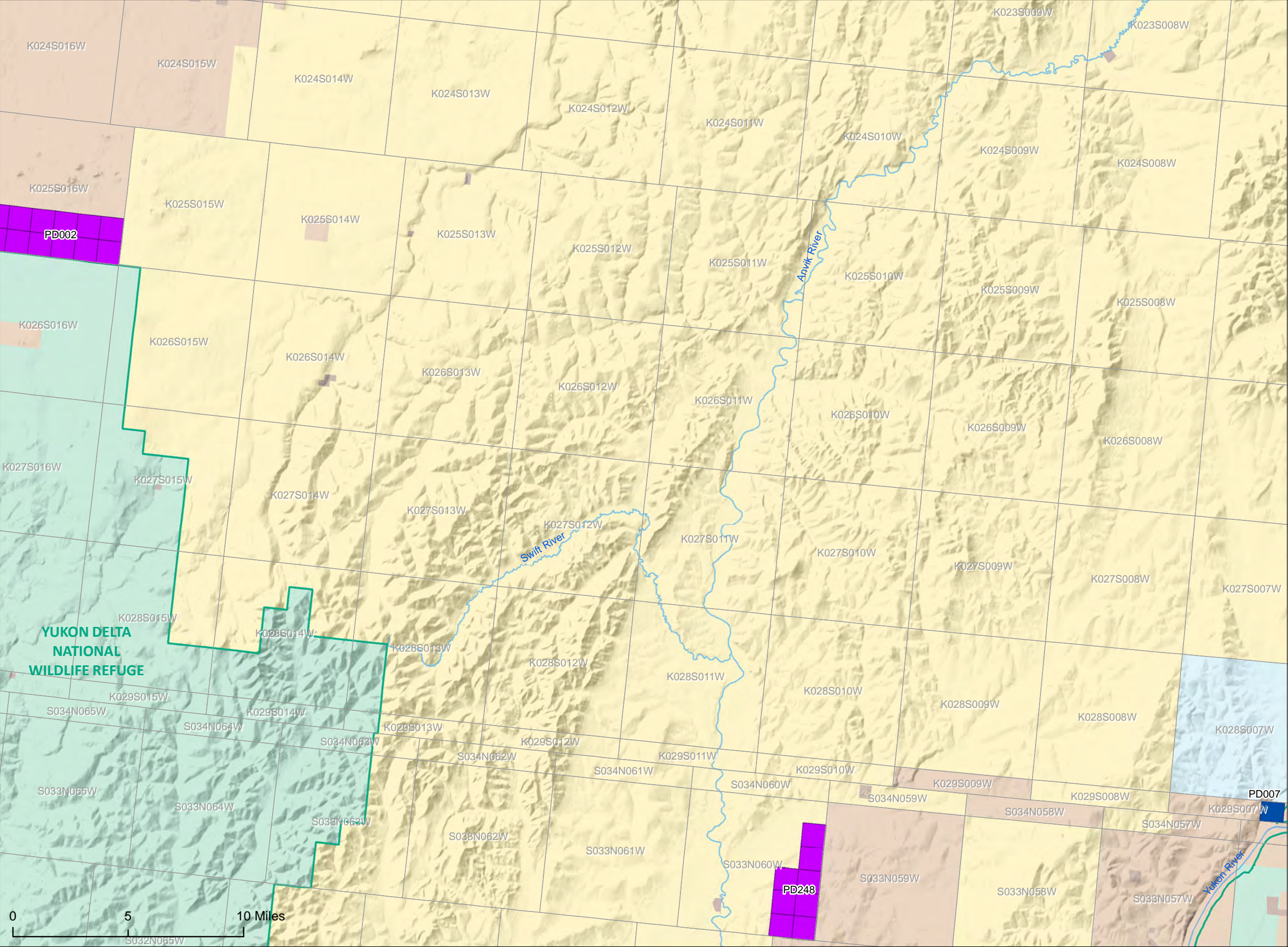
Land Manager

- BLM-managed Land
- U.S. Fish and Wildlife Service
- Native Allotment
- Native Lands (Patented or Interim Conveyed)
- Water

Data Source: BLM GIS 2017

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.





Parcels Identified for Exchange by Category

- 1
- 2

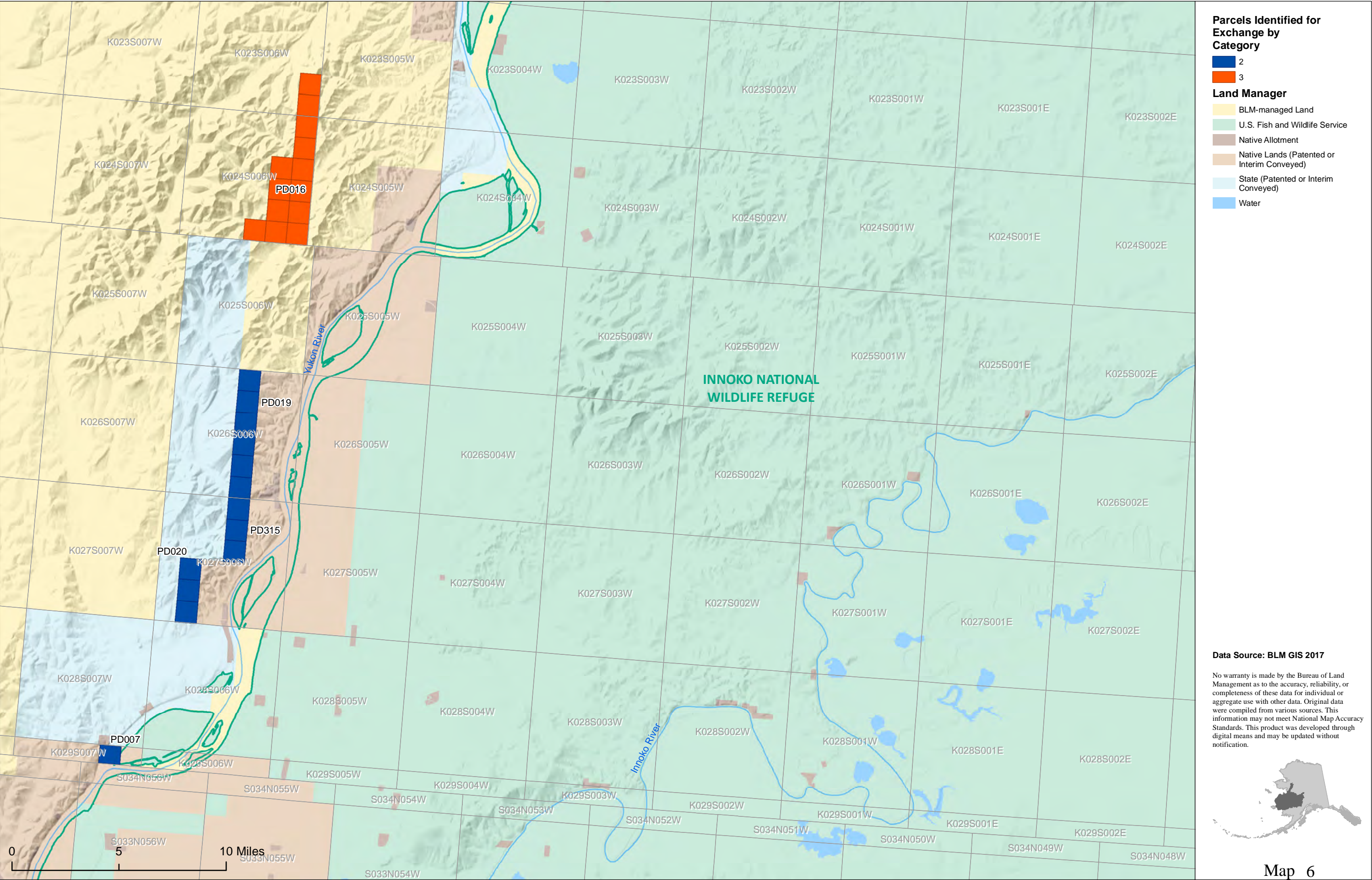
Land Manager

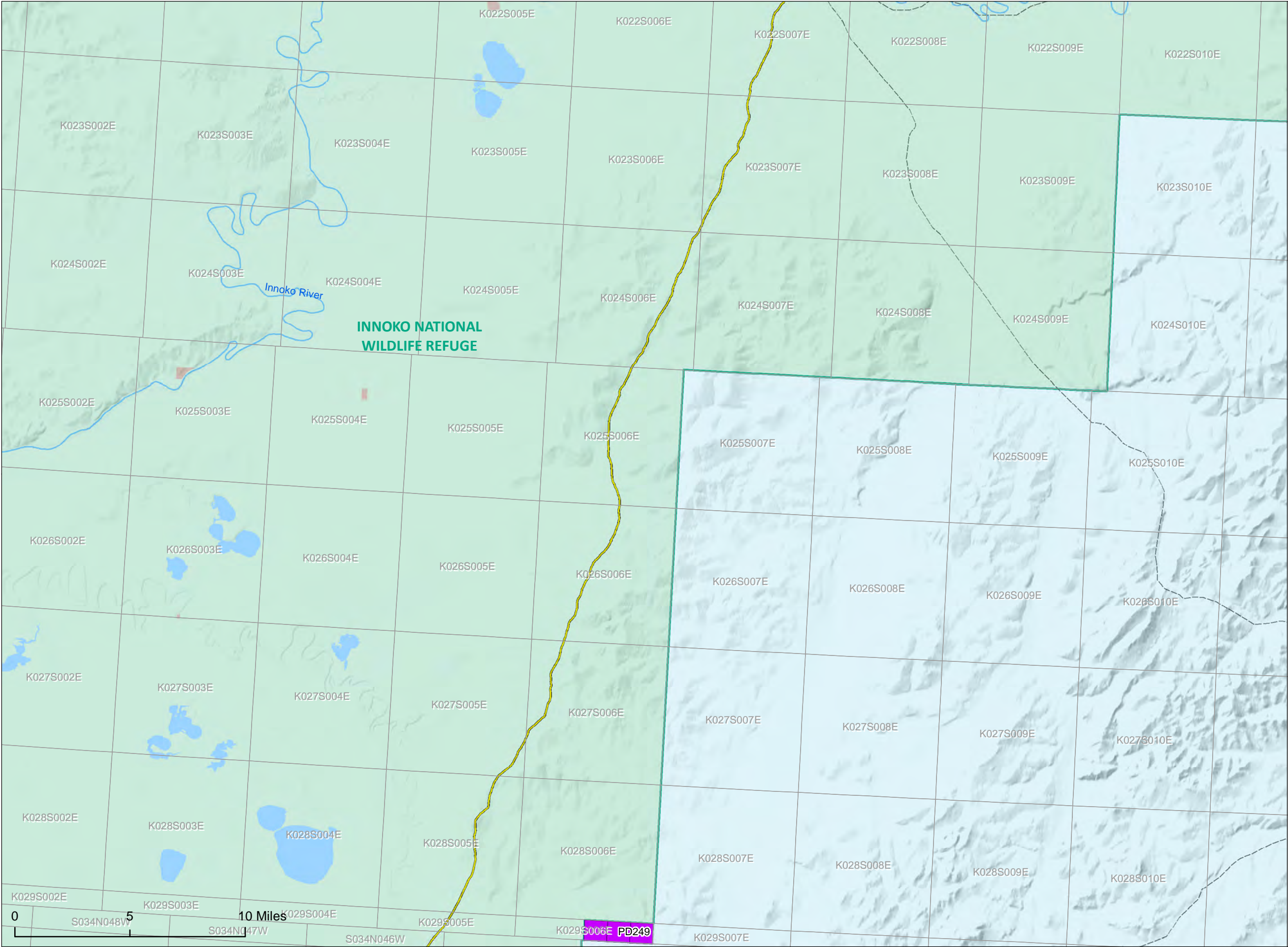
- BLM-managed Land
- U.S. Fish and Wildlife Service
- Native Allotment
- Native Lands (Patented or Interim Conveyed)
- State (Patented or Interim Conveyed)

Data Source: BLM GIS 2017

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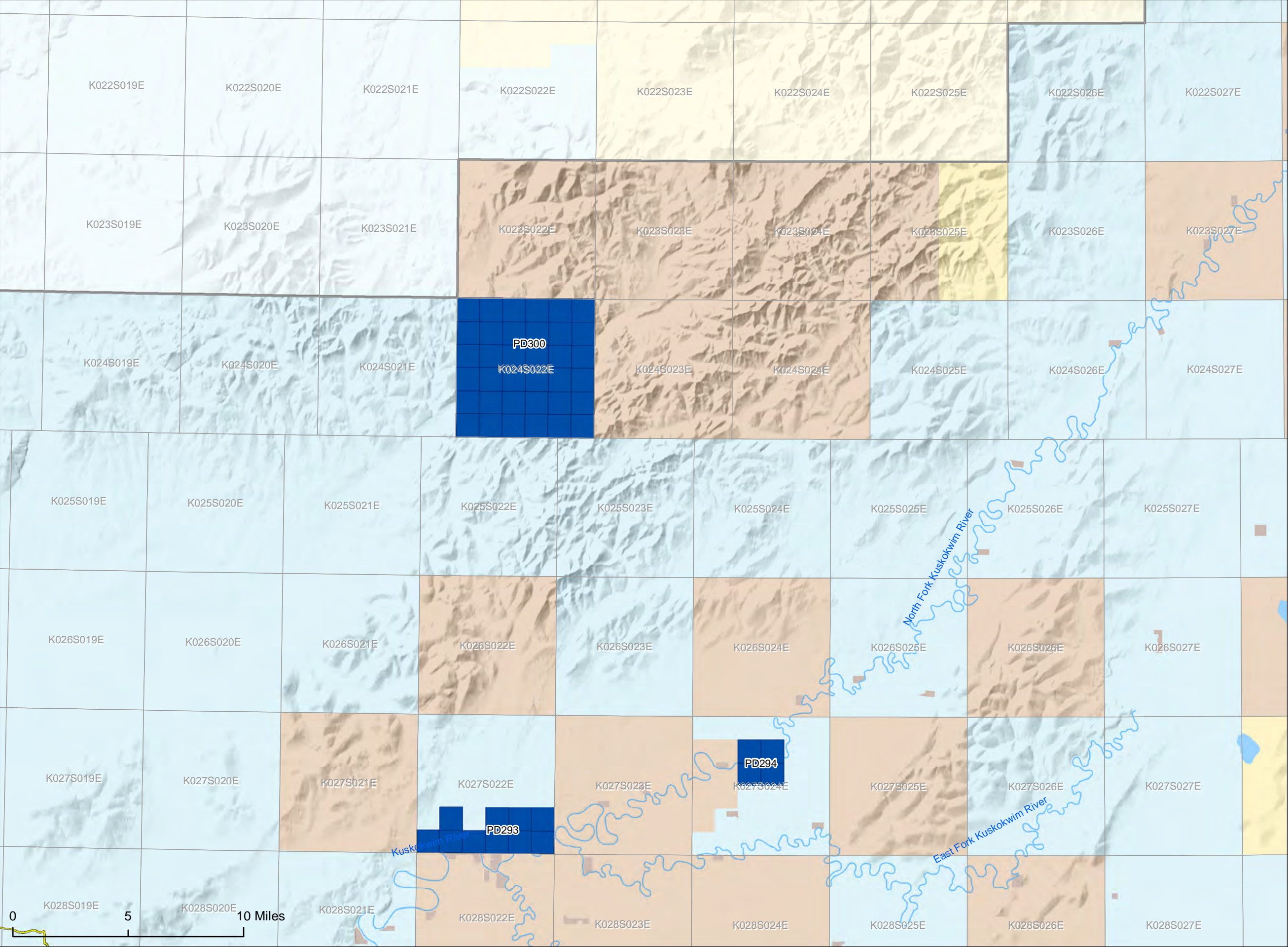
Parcels Identified for Exchange by Category

- 1
- Iditarod National Historic Trail
- Iditarod Connecting Trails
- Land Manager
 - BLM-managed Land
 - U.S. Fish and Wildlife Service
 - Native Allotment
 - State (Patented or Interim Conveyed)
 - Water

Data Source: BLM GIS 2017

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Parcels Identified for Exchange by Category

2

Iditarod National Historic Trail

Land Manager

BLM-managed Land

Native Allotment


Native Lands (Patented or Interim Conveyed)

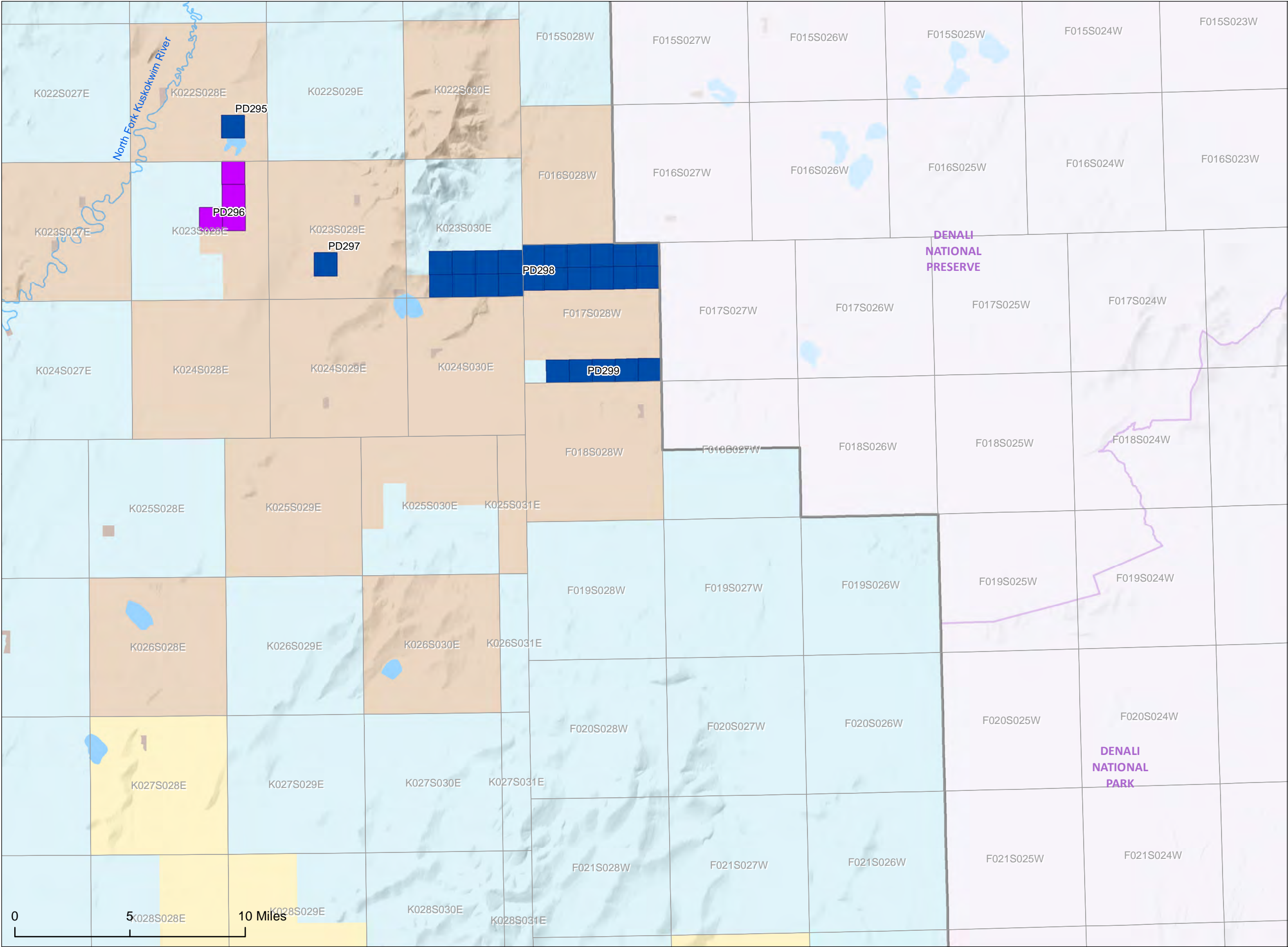
State (Patented or Interim Conveyed)

Water

Data Source: BLM GIS 2017

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Parcels Identified for Exchange by Category

- 1
- 2

Land Manager

- BLM-managed Land
- National Park Service
- Native Allotment
- Native Lands (Patented or Interim Conveyed)
- State (Patented or Interim Conveyed)
- Water

DENALI
NATIONAL
PRESERVE

F018S024W

F019S024W

F020S024W

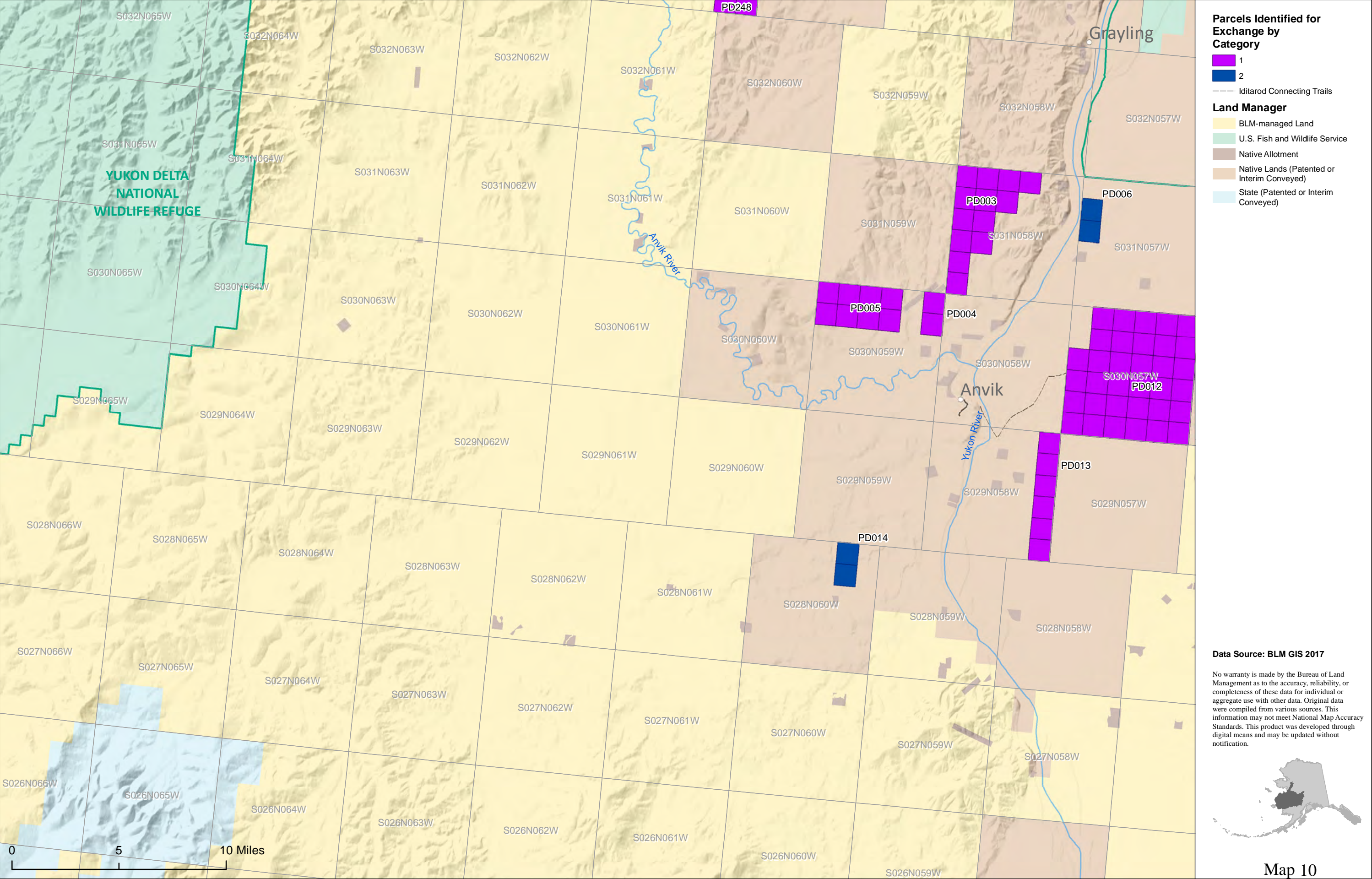
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NATIONAL
PARK

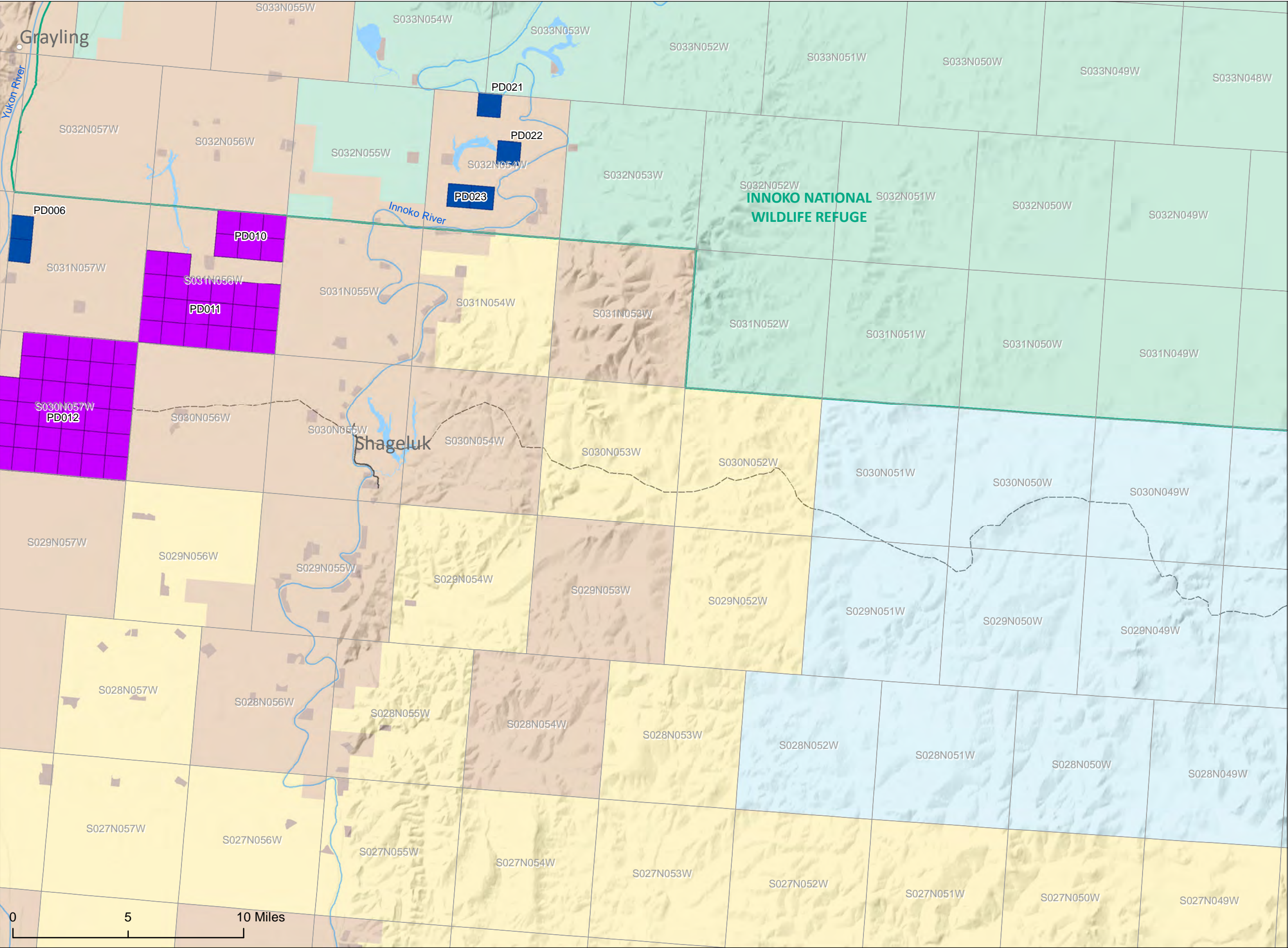
F021S024W

Data Source: BLM GIS 2017

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Parcels Identified for Exchange by Category

1

2

Iditarod Connecting Trails

Land Manager

BLM-managed Land

U.S. Fish and Wildlife Service

Native Allotment


Native Lands (Patented or Interim Conveyed)

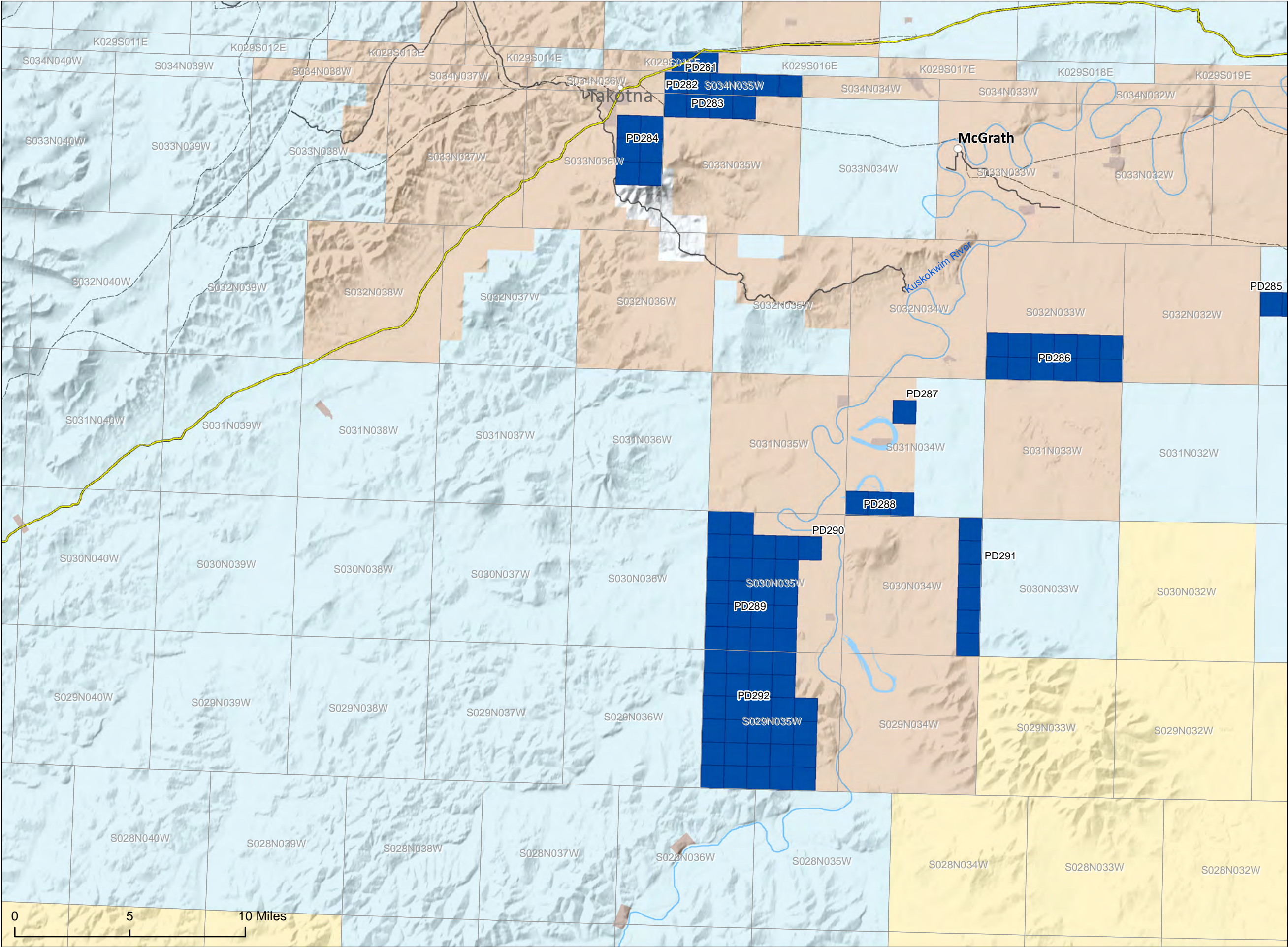
State (Patented or Interim Conveyed)

Water

Data Source: BLM GIS 2017

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Parcels Identified for Exchange by Category

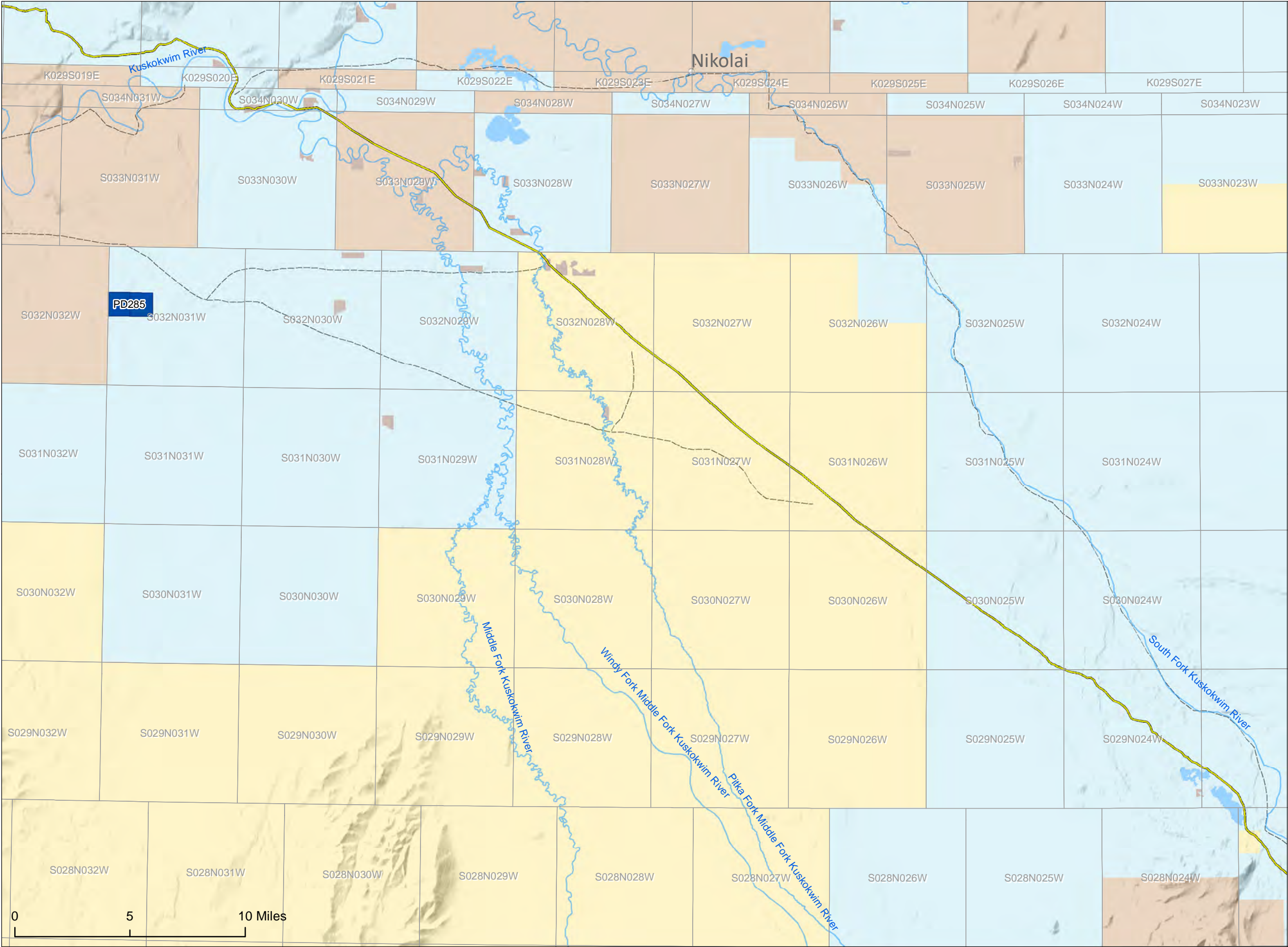
- 2
- Iditarod National Historic Trail
- Iditarod Connecting Trails
- Land Manager
 - BLM-managed Land
 - Native Allotment
 - Native Lands (Patented or Interim Conveyed)
 - State (Patented or Interim Conveyed)
 - Water

Data Source: BLM GIS 2017

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Map 12



Parcels Identified for Exchange by Category

■ 2

— Iditarod National Historic Trail

--- Iditarod Connecting Trails

Land Manager

■ BLM-managed Land

■ Native Allotment

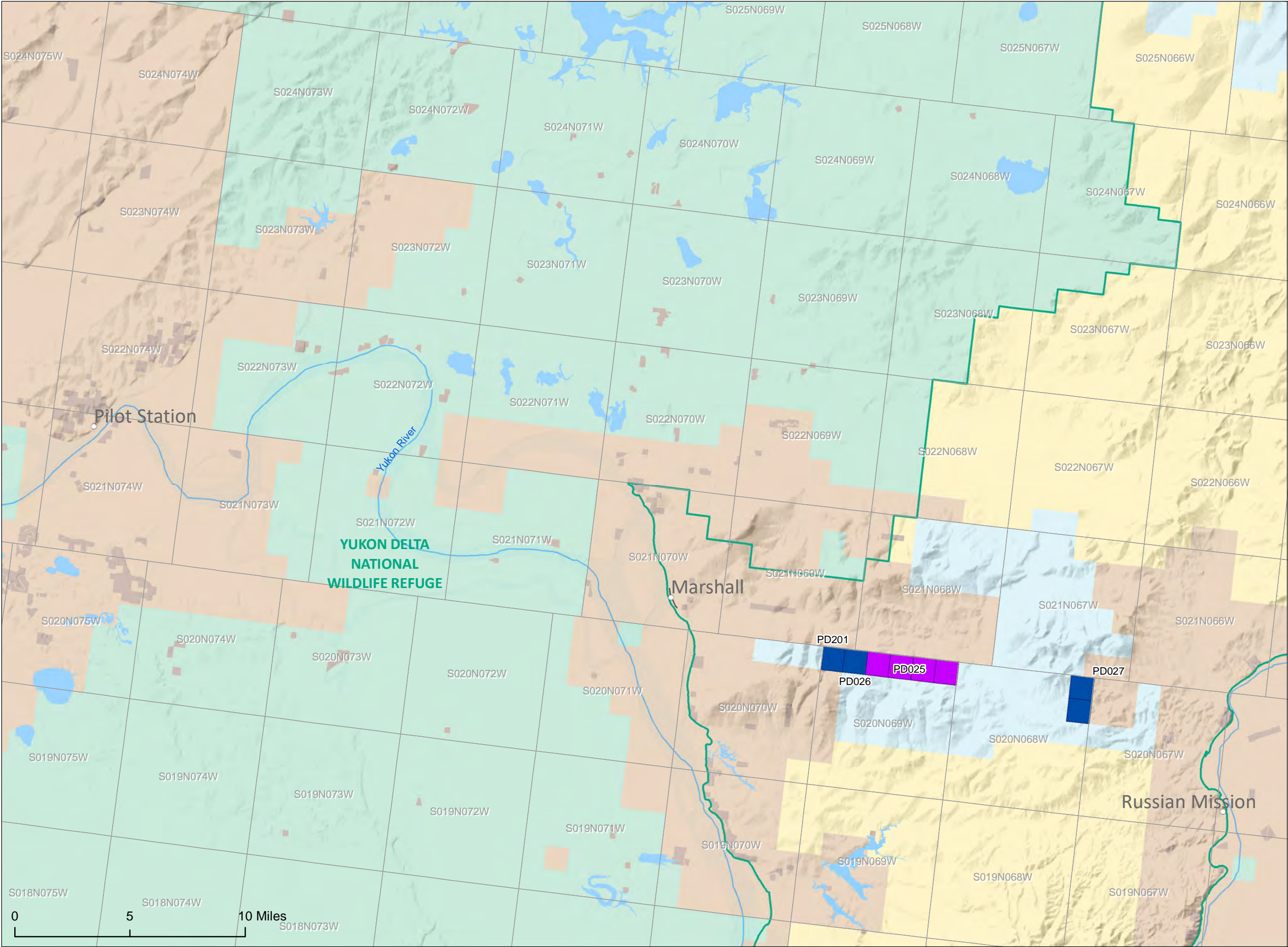
■ Native Lands (Patented or Interim Conveyed)

■ State (Patented or Interim Conveyed)

■ Water

Data Source: BLM GIS 2017

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Parcels Identified for Exchange by Category

- 1
- 2

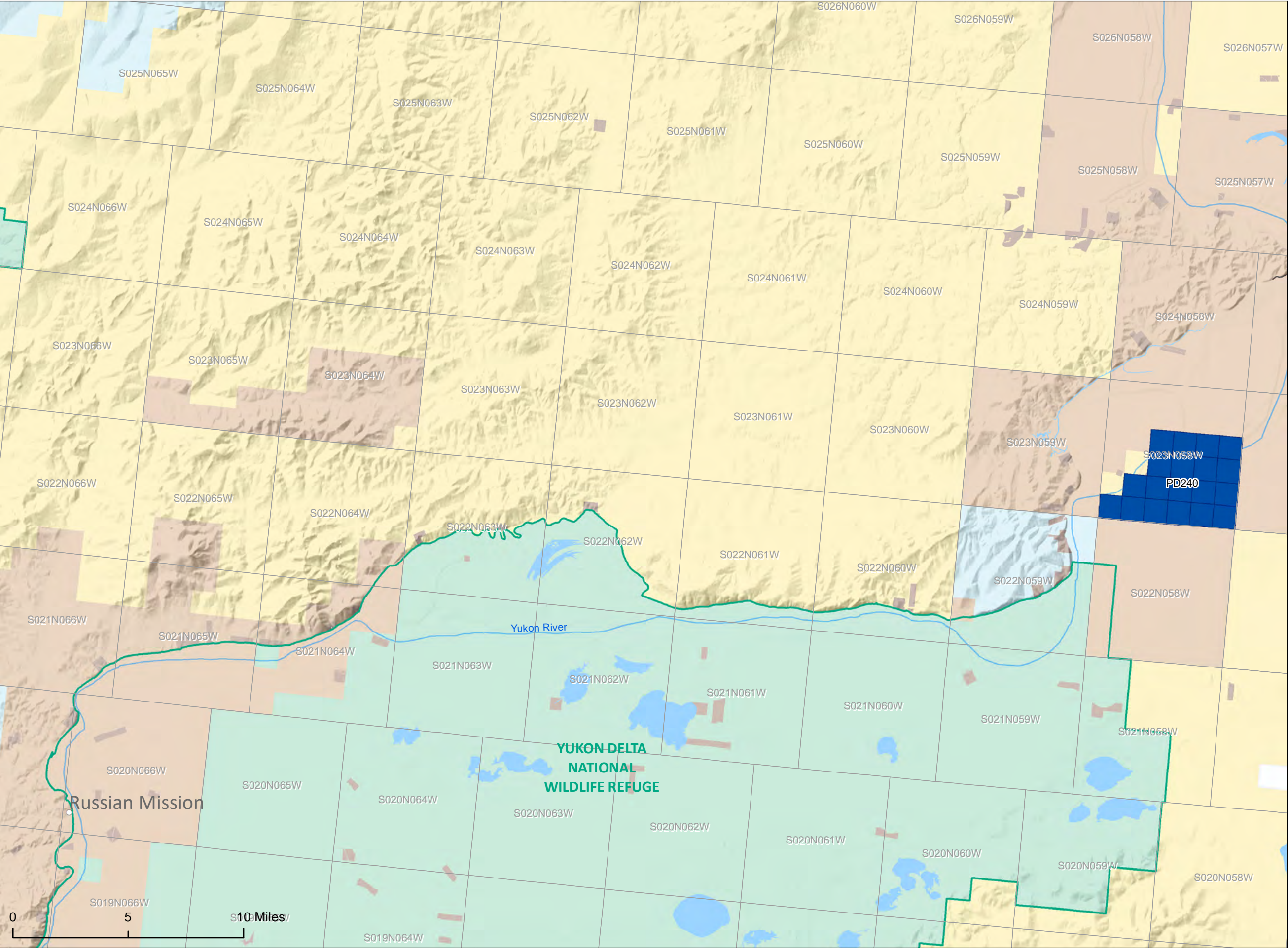
Land Manager

- BLM-managed Land
- U.S. Fish and Wildlife Service
- Native Allotment
- Native Lands (Patented or Interim Conveyed)
- State (Patented or Interim Conveyed)
- Water

Data Source: BLM GIS 2017

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Parcels Identified for Exchange by Category

■ 2

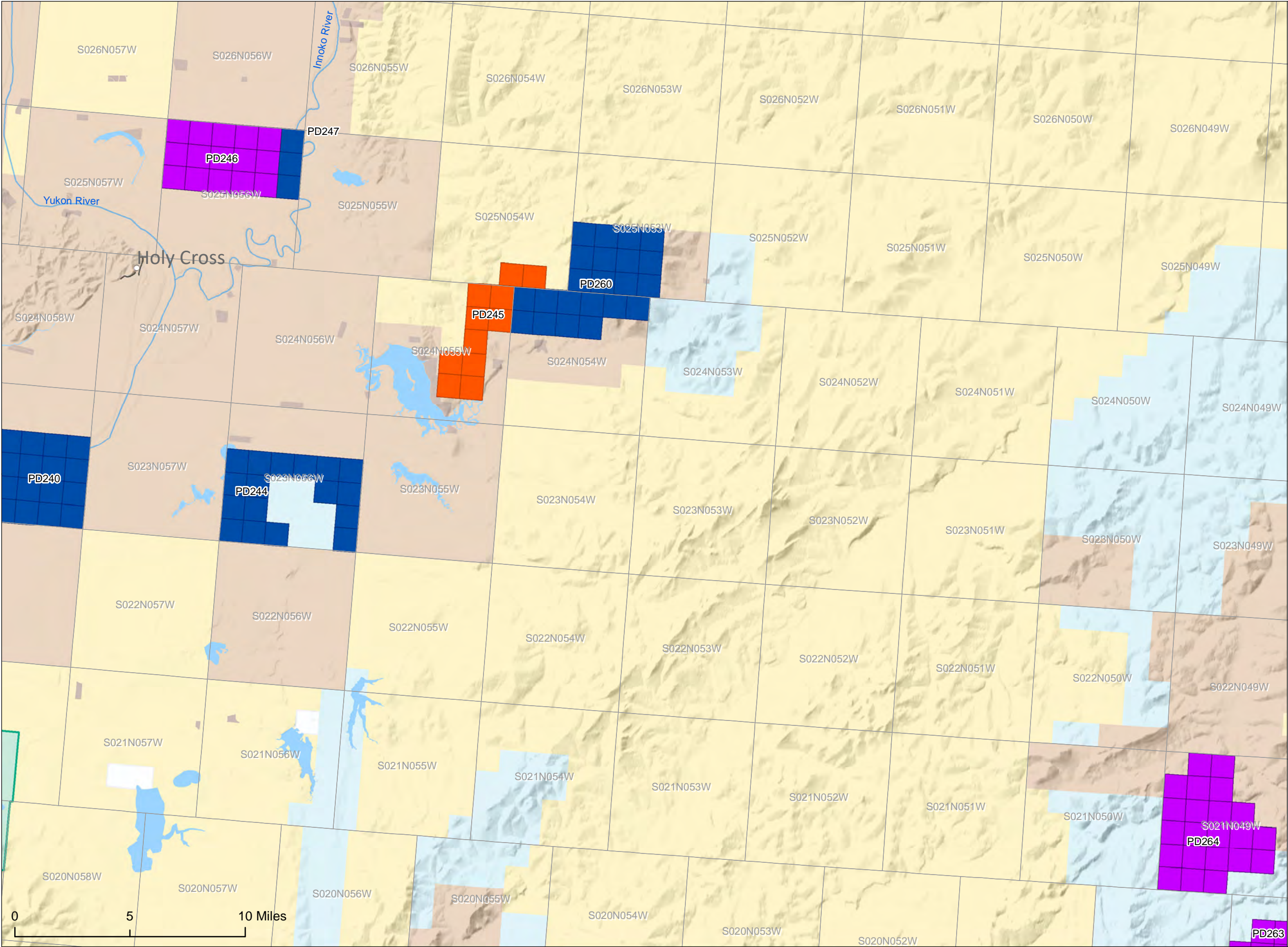
Land Manager

- BLM-managed Land
- U.S. Fish and Wildlife Service
- Native Allotment
- Native Lands (Patented or Interim Conveyed)
- Private
- State (Patented or Interim Conveyed)
- Water

Data Source: BLM GIS 2017

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Parcels Identified for Exchange by Category

- 1
- 2
- 3

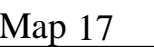
Land Manager

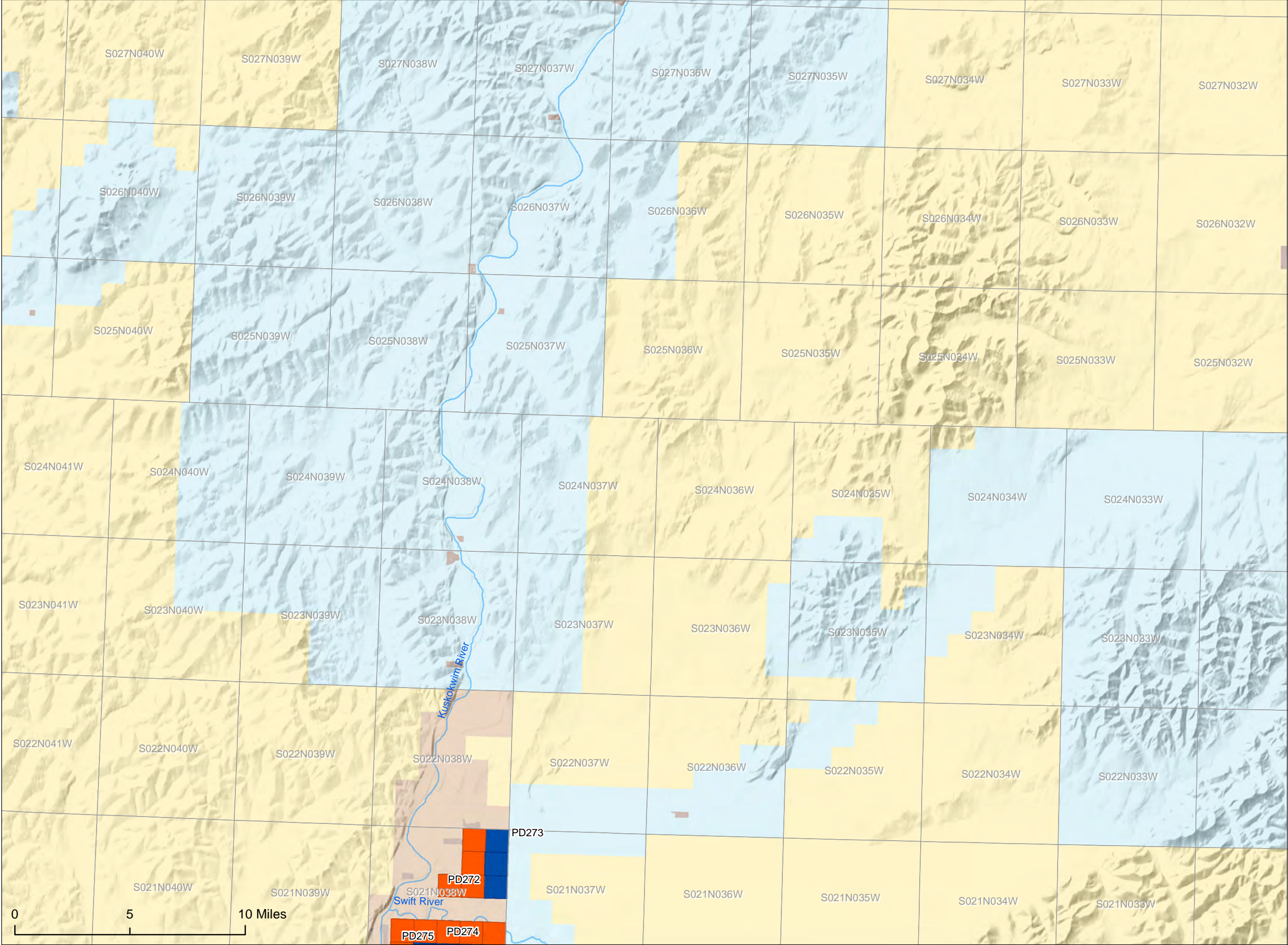
- BLM-managed Land
- U.S. Fish and Wildlife Service
- Native Allotment
- Native Lands (Patented or Interim Conveyed)
- Private
- State (Patented or Interim Conveyed)
- Water

Data Source: BLM GIS 2017

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Parcels Identified for Exchange by Category

- 2
- 3

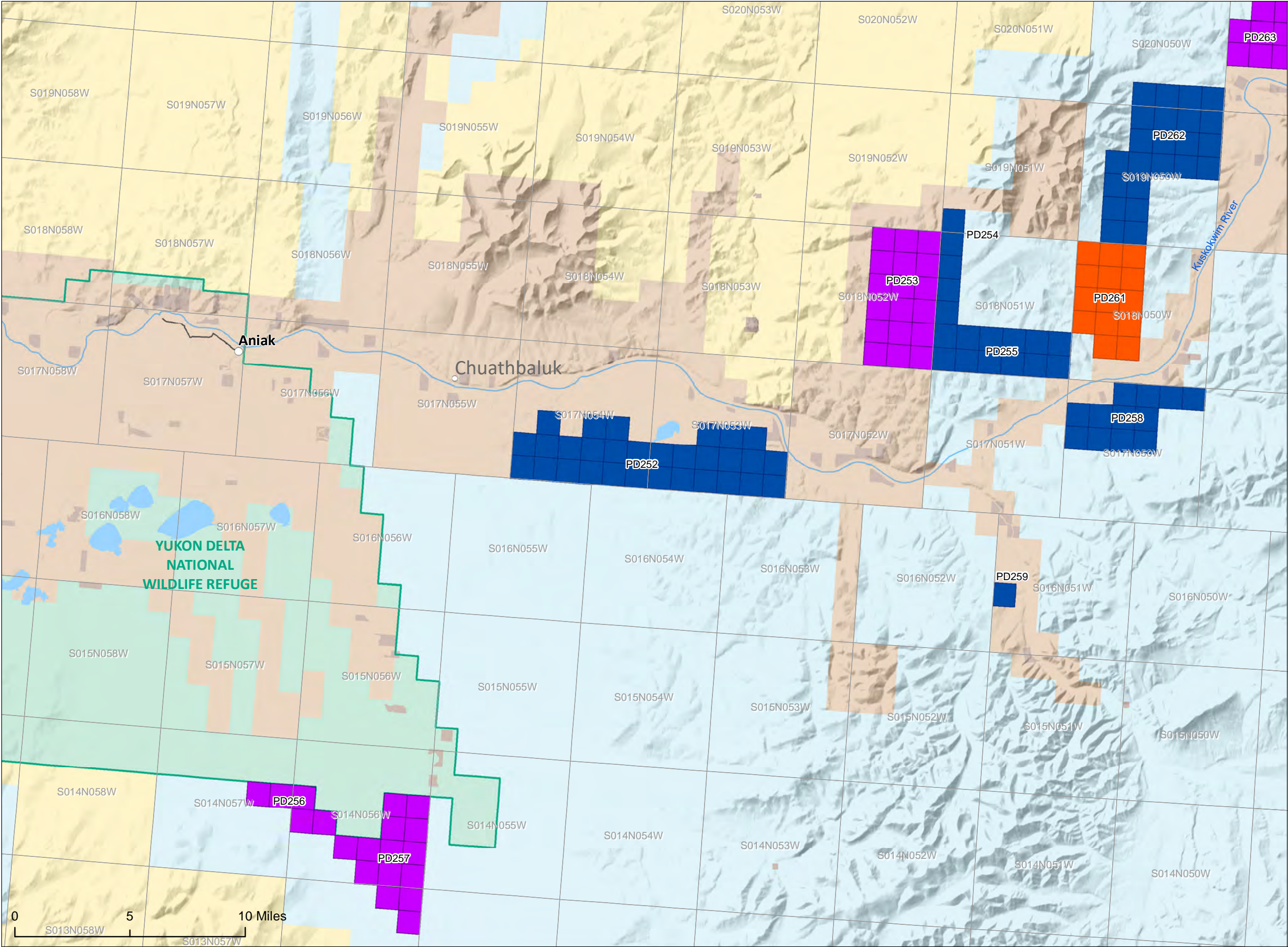
Land Manager

- BLM-managed Land
- Native Allotment
- Native Lands (Patented or Interim Conveyed)
- State (Patented or Interim Conveyed)

Data Source: BLM GIS 2017

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Parcels Identified for Exchange by Category

- 1
- 2
- 3

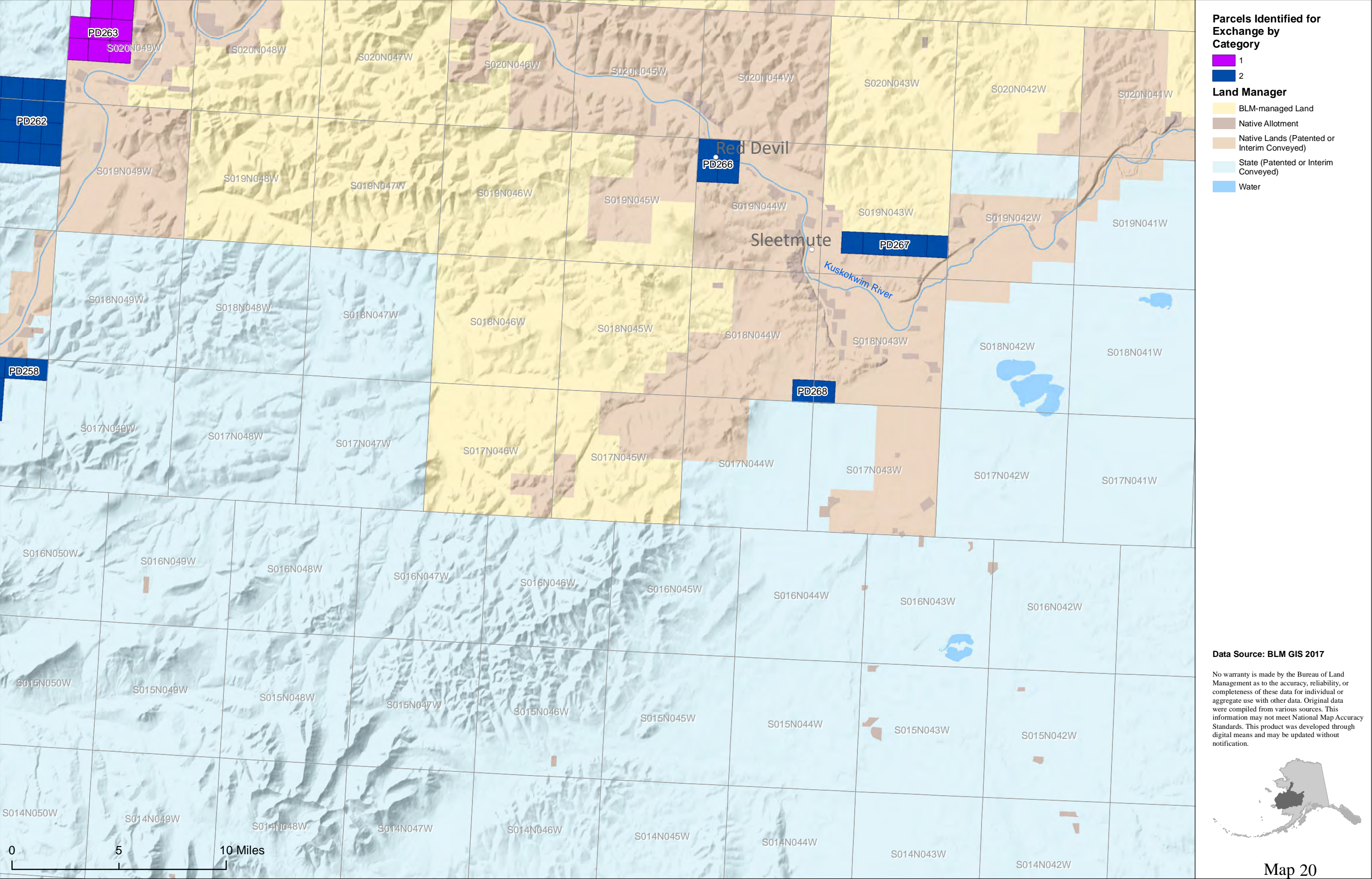
Land Manager

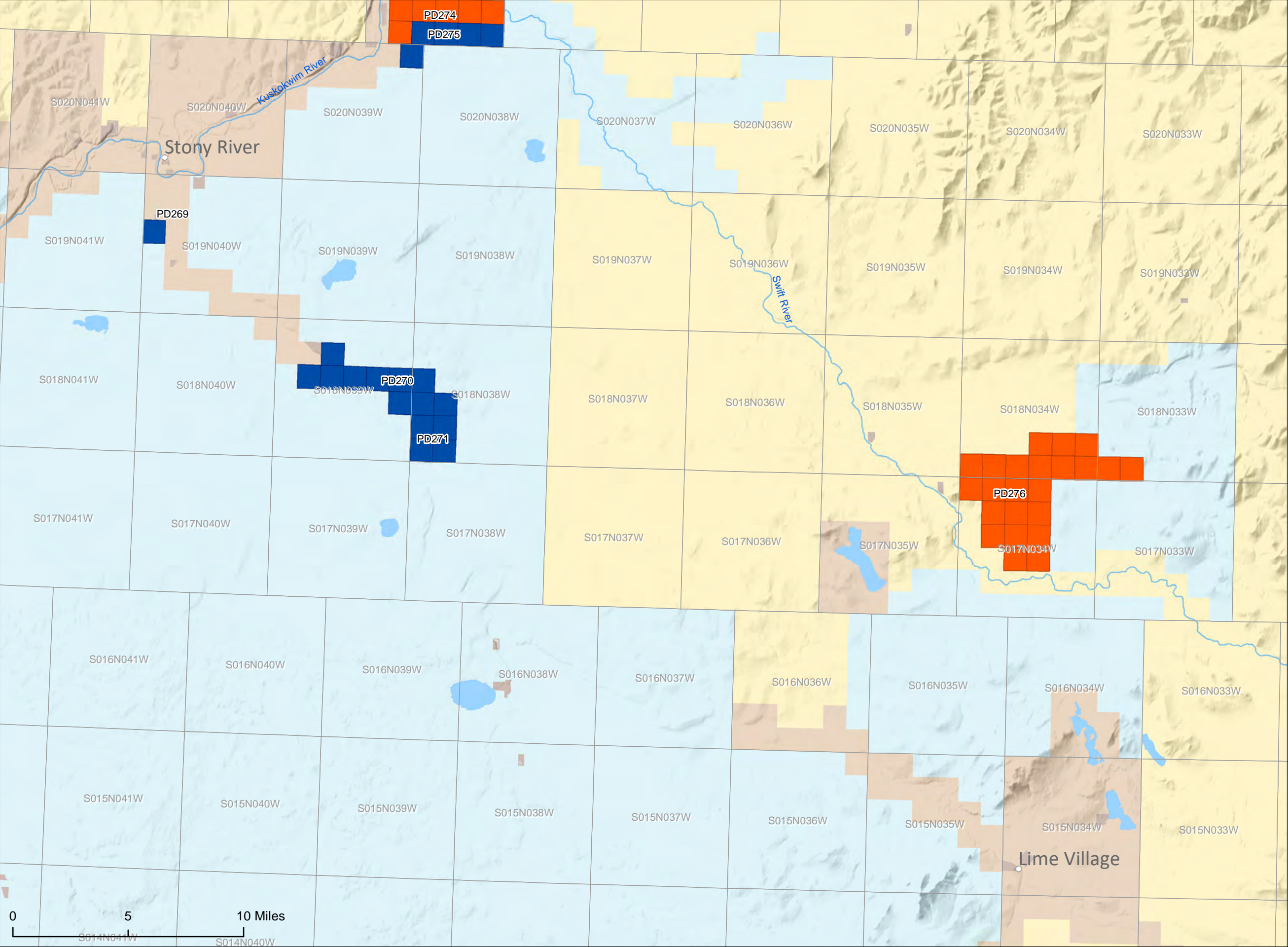
- BLM-managed Land
- U.S. Fish and Wildlife Service
- Native Allotment
- Native Lands (Patented or Interim Conveyed)
- State (Patented or Interim Conveyed)
- Water

Data Source: BLM GIS 2017

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Parcels Identified for Exchange by Category

- 2
- 3

Land Manager

- BLM-managed Land
- Native Allotment
- Native Lands (Patented or Interim Conveyed)
- State (Patented or Interim Conveyed)
- Water

Data Source: BLM GIS 2017

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.



Written Description of Maps

<u>Map Number</u>	<u>Map Description</u>
Appendix H, Map 1	Map 1 provides an overview of the Appendix H maps. Map 1 shows the planning area and the location of each of the more detailed map pages in the appendix (numbered 1 to 20). The map pages start in the north end of the planning area, and go left to right sequentially, in five rows that cover all areas with lands available for exchange, skipping areas where there are no lands available for exchange. The map provides an overview of the potential exchange areas in the planning area, represented as different colors based on their exchange category (1, 2, or 3). The map also shows the Iditarod National Historic Trail and generalized land status. For Bureau of Land Management (BLM)-managed land, land status includes categories for Native-selected and State-selected lands.
Appendix H, Map 2	Map 2 is Page 1 of the Parcels Identified for Exchange Map series. Its geographic area includes portions of the Unalakleet and Yukon Rivers and the northwest corner of the Innoko NWR. The map shows two parcels proposed for exchange. PD250 is a Category 2 potential exchange area consisting of nine sections in K018S003W, located just northwest of the Yukon River and west of the Innoko National Wildlife Refuge (NWR) at the north end of the planning area. PD017 is a Category 3 potential exchange area consisting of two sections in K022S005W, located west of the Yukon River and Innoko NWR.
Appendix H, Map 3	Map 3 is Page 2 of the Parcels Identified for Exchange Map series. Its geographic area includes the northeast corner of the planning area. The map shows two parcels proposed for exchange. PD301 is a Category 2 potential exchange area consisting of six sections in F011S023W, located just northeast of Lake Minchumina on the eastern edge of the planning area. PD302 is a Category 2 potential exchange area consisting of six sections in F012S023W, located southeast of Lake Minchumina on the eastern edge of the planning area.
Appendix H, Map 4	Map 4 is Page 3 of the Parcels Identified for Exchange Map series. Its geographic area includes the western end of the planning area south of St. Michael. The map shows two parcels proposed for exchange. PD001 and PD002 are Category 1 potential exchange areas located adjacent to the Yukon Delta NWR boundary. PD001 includes three sections in K024S018W, and PD002 includes 46 sections: 12 in K025S016W, 28 in K025S017W, and 6 in K025S018W.
Appendix H, Map 5	Map 5 is Page 4 of the Parcels Identified for Exchange Map series. Its geographic area generally lies between the Yukon Delta and Innoko NWRs and includes stretches of the Anvik and Swift Rivers. The map shows two parcels proposed for exchange. PD248 is a Category 1 potential exchange area consisting of eight sections in S033N060W, located east of the Anvik River. PD007 is a Category 2 potential exchange area consisting of one section in K029S007W, located west of and adjacent to the Yukon River and Innoko NWR.
Appendix H, Map 6	Map 6 is Page 5 of the Parcels Identified for Exchange Map series. Its geographic area includes a large portion of the Innoko NWR and the area just to the west. The map shows five parcels proposed for exchange, all of which are just west of the Yukon River and Innoko NWR. PD016 is a Category 3 potential exchange area consisting of 11 sections in K024S006W and two sections in K023S006W, located west of the Yukon River. PD0019 is a Category 2 potential exchange area consisting of six sections in K026S006W, located west of the Yukon River. PD315 is a Category 2 potential exchange area consisting of three sections in K027S006W, adjacent to and south of PD019. PD020 is a Category 2 potential exchange area consisting of three sections in K027S006W, just southeast of PD019. PD007 is a Category 2 potential exchange area consisting of one section in K029S007W, located south and east of the other parcels on this map.
Appendix H, Map 7	Map 7 is Page 6 of the Parcels Identified for Exchange Map series. Its geographic area includes a large portion of the Innoko NWR and lands to the east. The map shows one parcel proposed for exchange. PD249 is a Category 1 potential exchange area consisting of three sections in K029S006E, adjacent to the Innoko NWR.

Map Number	Map Description
Appendix H, Map 8	Map 8 is Page 7 of the Parcels Identified for Exchange Map series. Its geographic area includes the northern end of the planning area, north of Nikolai. The map shows three parcels proposed for exchange. PD300 is a Category 2 potential exchange area consisting of all of K024S022E (36 sections), located at the northern boundary of the planning area. PD293 is a Category 2 potential exchange area consisting of ten sections in K027S022E, located at the confluence of the Kuskokwim and East Fork Kuskokwim Rivers. PD294 is a Category 2 potential exchange area consisting of four sections in K027S024E, located on the Kuskokwim River, northeast of PD293.
Appendix H, Map 9	Map 9 is Page 8 of the Parcels Identified for Exchange Map series. Its geographic area includes the east end of the planning area and a portion of Denali National Park and Preserve. The map shows five parcels proposed for exchange. PD295 is a Category 3 potential exchange area consisting of one section in K022S028E, located east of the North Fork Kuskokwim River. PD296 is a Category 1 potential exchange area consisting of four sections in K023S028E, located south of PD295. PD297 is a Category 2 potential exchange area consisting of one section in K023S029E, located southeast of PD295. PD298 is a Category 2 potential exchange area consisting of eight sections in K023S030E and twelve sections in F017S028W, located on the eastern boundary of the planning area. PD299 is a Category 2 potential exchange area consisting of five sections in F017S028W, located on the eastern boundary of the planning area and south of PD298.
Appendix H, Map 10	Map 10 is Page 9 of the Parcels Identified for Exchange Map series. Its geographic area includes the Anvik area generally between the Yukon Delta and Innoko NWRs. The map shows eight parcels proposed for exchange. The map shows only a small portion of PD248, which is displayed in full on Map 5. PD003 is a Category 1 potential exchange area consisting of 13 sections in S031N058W, located west of the Yukon River and southwest of the Innoko NWR. PD006 is a Category 2 potential exchange area consisting of two sections in S031N057W, located just east of the Yukon River and south of the Innoko NWR. PD005 is a Category 1 potential exchange area consisting of eight sections in S030N059W, located north of the Anvik River. PD004 is a Category 1 potential exchange area consisting of two sections in S030N059W, located east of PD005 and south of PD003. PD012 is a Category 1 potential exchange area consisting of 34 sections in S030N057W, located east of Anvik. PD013 is a Category 1 potential exchange area consisting of six sections in S029N058W, located just south and east of PD012. PD014 is a Category 2 potential exchange area consisting of two sections in S028N050W, located west of the Yukon River.
Appendix H, Map 11	Map 11 is Page 10 of the Parcels Identified for Exchange Map series. Its geographic area includes the Shageluk area and the southern portion of the Innoko NWR. The map shows seven parcels proposed for exchange. PD006 is a Category 2 potential exchange area consisting of two sections in S031N057W, located just east of the Yukon River and south of the Innoko NWR. PD012 is a Category 1 potential exchange area consisting of 34 sections in S030N057W, located west of Shageluk. PD010 is a Category 1 potential exchange area consisting of six sections in S031N056W, located on the southern boundary of the Innoko NWR. PD011 is a Category 1 potential exchange area consisting of 20 sections in S031N056W, located south of PD010. PD021 (one section), PD022 (one section), and PD023 (two sections) are Category 2 potential exchange areas in S032N054W, located along the Innoko River within the Innoko NWR boundary.

Map Number	Map Description
Appendix H, Map 12	Map 12 is Page 11 of the Parcels Identified for Exchange Map series. Its geographic area includes the Takotna and McGrath areas and a portion of the Kuskokwim River. The map shows 11 parcels proposed for exchange. The map shows only a portion of PD285, which is displayed in full on Map 13. PD281 is a Category 2 potential exchange area consisting of two sections in K029S015E, located northeast of Takotna, along the Iditarod National Historic Trail. PD282 is a Category 2 potential exchange area consisting of all six sections in S034N035W, located south of and adjacent to PD281. PD283 is a Category 2 potential exchange area consisting of four sections in S033N035W, located south of and adjacent to PD282. PD284 is a Category 2 potential exchange area consisting of six sections in S033N036W, located south of Takotna and southwest of PD283. PD286 is a Category 2 potential exchange area consisting of 12 sections in S032N033W, located southeast of McGrath, east of the Kuskokwim River. PD287 (one section) and PD288 (three sections) are Category 2 potential exchange areas in S031N034W, located east of the Kuskokwim River and southwest of PD286. PD289 and PD290 together form 23 contiguous sections of Category 2 potential exchange area in S030N035W, located west of the Kuskokwim River. PD292 is a Category 2 potential exchange area consisting of 28 sections in S029N035W, located south of and adjacent to PD289. PD291 is a Category 2 potential exchange area consisting of six sections in S030N034W, located east of the Kuskokwim River.
Appendix H, Map 13	Map 13 is Page 12 of the Parcels Identified for Exchange Map series. Its geographic area includes the Nikolai area and a portion of the Kuskokwim River and several of its tributaries. The map shows one parcel proposed for exchange. PD285 is a Category 2 potential exchange area consisting of two sections in S032N031W, located west of the Middle Fork Kuskokwim River and near an Iditarod connecting trail.
Appendix H, Map 14	Map 14 is Page 13 of the Parcels Identified for Exchange Map series. Its geographic area includes the Marshall area and a portion of the Yukon Delta NWR. The map shows four parcels proposed for exchange. PD201 (Category 2, one section), PD026 (Category 2, one section), and PD025 (Category 1, four sections) are adjacent parcels in S020N069W, located southeast of Marshall. PD027 is a Category 2 potential exchange area consisting of two sections in S020N068W, located just east of the other parcels and northwest of Russian Mission.
Appendix H, Map 15	Map 15 is Page 14 of the Parcels Identified for Exchange Map series. Its geographic area is generally northeast of Russian Mission and includes a portion of the Yukon Delta NWR. The map shows one parcel proposed for exchange. PD240 is a Category 2 potential exchange area consisting of 19 sections in S023N058W, located along and northeast of the Yukon Delta NWR.
Appendix H, Map 16	Map 16 is Page 15 of the Parcels Identified for Exchange Map series. Its geographic area includes the Holy Cross area and land to the east. The map shows eight parcels proposed for exchange. The map shows only a portion of PD240, which is displayed in full on Map 15. The map shows only a portion of PD263, which is displayed in full on Map 20. PD246 (Category 1, 15 sections) and PD247 (Category 2, 3 sections) are adjacent parcels in S025N055W, located northeast of Holy Cross, near the confluence of the Yukon and Innoko Rivers. PD245 is a Category 3 potential exchange area consisting of nine sections in S024N055W and 2 sections in S025N054W, located east of Holy Cross and near a lake that is unlabeled on the map. PD260 is a Category 2 potential exchange area consisting of ten sections in S024N054W and 12 sections in S025N053W, located adjacent to and east of PD245. PD244 is a Category 2 potential exchange area consisting of 17 sections in S023N056W, located southwest of PD243. PD264 is a Category 1 potential exchange area consisting of 22 sections in S021N049W, located northwest of Crooked Creek.
Appendix H, Map 17	Map 17 is Page 16 of the Parcels Identified for Exchange Map series. Its geographic area includes the Crooked Creek area and land to the northeast. The map shows three parcels proposed for exchange. The map shows only a portion of PD263, which is displayed in full on Map 20. PD264 is a Category 1 potential exchange area consisting of 22 sections in S021N049W, located northwest of Crooked Creek. PD265 is a Category 3 potential exchange area consisting of two sections in S022N046W, located northeast of Crooked Creek and north of the Kuskokwim River.

Map Number	Map Description
Appendix H, Map 18	Map 18 is Page 17 of the Parcels Identified for Exchange Map series. Its geographic area is northeast of Stony River and includes a long stretch of the Kuskokwim River. The map shows four parcels proposed for exchange. The southern edge of the map shows portions of PD274 and PD275, which are displayed more completely on Map 21. PD272 (Category 3, four sections) and PD273 (Category 2, four sections) are adjacent parcels in S021N038W, located northeast of the confluence of the Kuskokwim and Swift Rivers.
Appendix H, Map 19	Map 19 is Page 18 of the Parcels Identified for Exchange Map series. Its geographic area includes the Aniak and Chuathbaluk areas and a portion of the Yukon Delta NWR. The map shows eleven parcels proposed for exchange. The map shows a portion of PD263, which is displayed in full on Map 20. PD262 is a Category 2 potential exchange area consisting of 19 sections in S019050W and 4 sections in S020N050W, located east of the Kuskokwim River. PD253 is a Category 1 potential exchange area consisting of 18 sections in S018N052W, located northeast of Chuathbaluk and north of the Kuskokwim River. PD 254 and PD255 are adjacent parcels of Category 2 potential exchange area consisting of 17 contiguous sections in S018N051W, located east of and adjacent to PD253. PD261 is a Category 3 potential exchange area consisting of 14 sections in S018N050W, located adjacent to and south of PD262 and east of PD255. PD252 is a Category 2 potential exchange area consisting of 15 sections in S017N054W and 15 sections in S017N053W, located southeast of Chuathbaluk and south of the Kuskokwim River. PD258 is a Category 2 potential exchange area consisting of 12 sections in S017N050W, located southeast of the Kuskokwim River. PD259 is a Category 2 potential exchange area consisting of one section in S016N051W, located southeast of the Kuskokwim River and PD252. PD257 is a Category 1 potential exchange area consisting of 11 sections in S014N056W and 3 sections in S013N056W, located adjacent to the Yukon Delta NWR boundary. PD256 is a Category 1 potential exchange area consisting of three sections in S014N056W and two sections in S014N057W, located west of PD257 and adjacent to the Yukon Delta NWR boundary.
Appendix H, Map 20	Map 20 is Page 19 of the Parcels Identified for Exchange Map series. Its geographic area includes the Red Devil and Sleetmute areas and a stretch of the Kuskokwim River. The map shows six parcels proposed for exchange. The map shows a portion of PD262 and PD258, which are displayed in full on Map 19. PD263 is a Category 1 potential exchange area consisting of eight sections in S020N049W, located adjacent to the Kuskokwim River. PD266 is a Category 2 potential exchange area consisting of four sections in S019N044W, located near Red Devil along the Kuskokwim River. PD267 is a Category 2 potential exchange area consisting of five sections in S019N043W, located east of Sleetmute and north of the Kuskokwim River. PD268 is a Category 2 potential exchange area consisting of one section in S018N044W and one section in S018N043W, located south of the Kuskokwim River.
Appendix H, Map 21	Map 21 is Page 20 of the Parcels Identified for Exchange Map series. Its geographic area includes the Stony River and Lime Village areas, as well as stretches of the Kuskokwim and Swift Rivers. The map shows six parcels proposed for exchange. PD274 is a Category 3 potential exchange area consisting of six sections in S021N038W, located near the confluence of the Kuskokwim and Swift Rivers. PD275 is a Category 2 potential exchange area consisting of four sections in S021N038W and one section in S020N039W, located adjacent to and south of PD274. PD269 is a Category 2 potential exchange area consisting of one section in S019N040W, located south of Stony River and the Kuskokwim River. PD270 is a Category 2 potential exchange area consisting of seven sections in S018N039W and three sections in S018N038W, located southeast of Stony River and PD269. PD271 is a Category 2 potential exchange area consisting of four sections in S018N038W, located adjacent to and south of PD270. PD276 is a Category 3 potential exchange area consisting of 12 sections in S017N034W, nine sections in S018N034W, and two sections in S018N033W, located just north and east of the Swift River.

Appendix I: Recreation Management Areas

Appendix I. Recreation Management Areas

The Bureau of Land Management (BLM) allocates recreation resources and uses through the land use planning process. There are three required land use planning decisions related to recreation and visitor services¹: (1) Designate recreation management areas, (2) Establish recreation and visitor services objectives for each recreation management area, and (3) Identify land use planning-level supporting management actions and allowable uses for each recreation management area. The BLM has two classifications of recreation management areas: special recreation management area (SRMA) or extensive recreation management area (ERMA). Under the Bering Sea–Western Interior Approved Resource Management Plan, there will be one SRMA and undesignated recreation lands, or all lands outside of the SRMA.

According to the BLM Handbook on Planning for Recreation and Visitor Services,² a SRMA is managed to protect and enhance a targeted set of activities, experiences, benefits, and desired recreation setting characteristics. The BLM may also subdivide a SRMA into recreation management zones to further delineate specific recreation opportunities. The tables within this appendix match the template tables for SRMAs in Handbook H-8320-1 on Planning for Recreation and Visitor Services. These tables describe the following information for the SRMA, its recreation management zone, and undesignated recreation lands:

- Objectives, experiences, and benefits
- Description of recreation setting characteristics
- Management actions and allowable use decisions
- Implementation decisions or guidance

The objectives and management actions and allowable use decisions presented in the following tables fulfill required land use planning decisions (2) and (3) described above. This appendix can be used in the future to guide decision-making within the designated recreation management areas to ensure recreation objectives, experiences, and benefits are realized; provide a list of area-specific management actions and allowable use decisions; and provide guidance for implementation decisions.

¹ BLM. 2014. Handbook H-8320-1: Planning for Recreation and Visitor Services. Available at: https://www.blm.gov/sites/blm.gov/files/uploads/Media_Library_BLM_Policy_H-8320-1.pdf.

² Ibid.

Iditarod National Historic Trail Special Recreation Management Area (SRMA)**SUPPORTING INFORMATION**

The Iditarod National Historic Trail (INHT) SRMA would improve management of the unique and distinctive use of the INHT. The INHT is the only national trail within the Bering Sea–Western Interior (BSWI) planning area, composed of 2,400 miles of trail segments and sites associated with a Gold Rush-era trail network that connected Seward to Nome via the Iditarod gold mining district.

Historically, INHT travel occurred during winter and relied on roadhouses and cabins for shelter. Trail segments are still used as primary winter overland routes between communities. Approximately 1,600 miles of the INHT are on public lands and right-of-way identified for modern-day use. Over 700 miles of actively used trail segments are in the planning area, approximately 77 miles of which are on Bureau of Land Management (BLM)-managed lands. The INHT's diverse climate, terrain, scenery, wildlife, and resources are largely unchanged since the Gold Rush, providing an opportunity to experience the natural primitive settings and challenges historically encountered. Contemporary use includes snowmobile travel between villages, trapping, firewood gathering, subsistence, and race events.

Most wintertime trail use takes place from February to April, although winter use begins when sufficiently cold weather and snow coverage enable overland travel. Winter overland travel is mostly via snowmobile and dogsled. Alaska residents and those visiting from outside the state and country use the trail for competitive events, such as the Iditarod Sled Dog Race, the Iron Dog snowmobile race, and various human-powered (foot, bicycle, and ski) endurance races.

SRMA OBJECTIVES

Objective Statement: BLM Manual 6280 requires the establishment of a National Trails Management Corridor (NTMC) that provides for land management measures that safeguard the nature and character of the corridor to meet the legislative goals of the special designation.³ BLM Manual 6280 also requires inventorying national trail resources, qualities, values, and associated settings and the primary use or uses of the trail, as well as identifying management goals, objectives, and actions for each national trail. Designation and management of this area as a SRMA would ensure that desired experiences and benefits of the INHT could be sustained for generations to come.

Activities: Manage for the primary activities of dog mushing and snowmobile riding and secondary activities of trapping and hunting.

Experiences:

- Gain recognition from others for using the trail.
- Tell others about the trip.
- Enjoy exploring on one's own.
- Enjoy participation in group outdoor events.
- Enjoy strenuous exercise.
- Escape everyday responsibilities.
- Experience and feel good about solitude, isolation, and independence.
- Experience and enjoy adventure.
- Experience and enjoy the sights, sounds, and smells of nature.
- Test one's endurance (secondary experience).

³ BLM Manual 6280 – Management of National Scenic and Historic Trails and Trails under Study or Recommended as Suitable for Congressional Designation (Public). September 14, 2012. Available at https://www.blm.gov/sites/blm.gov/files/uploads/mediacenter_blmmanual6280.pdf.

Benefits:

Personal

- Greater self-reliance
- Improved outdoor recreation skills
- Enhanced awareness and understanding of nature
- Enhanced sense of personal freedom
- Enhanced sense of competence
- Greater sense of adventure

Community/Social

- Heightened awareness of natural world
- Improved community closeness and bonding
- Greater family bonding
- Enlarge sense of community dependency on public lands
- Increased independence/autonomy
- Greater interaction with visitors from different cultures

Environmental

- Greater retention of distinctive natural landscape features
- Reduced negative impacts such as litter, vegetative trampling, and unplanned trail construction

RECREATION SETTING CHARACTERISTIC DESCRIPTIONS

Physical Components (e.g., remoteness, naturalness, visitor facilities):

The INHT SRMA is more than 0.5 mile from paved roads. The existing natural landscape has been retained, and modifications to the landscape are not evident. Visitor facilities consist of simple/basic recreation developments such as shelter cabins and trail signs.

Social Components (e.g., contacts, group size, evidence of use):

There are two seasons of use on the INHT SRMA; the high season occurs from February to March, and visitors can expect to see an average of 15-29 people on the trail per day, in group sizes of 4-6. The low season occurs from April to January, and visitors can expect to see fewer than 3 other people each day. Evidence of use is limited to small localized areas with vegetation impacts. Wood lathe with reflective tape from permitted events is occasionally seen along the trail.

Operational Components (e.g., access [types of travel], visitor services/information, management controls):

Public access is predominantly by snowmobile, with a lesser use by dog sleds, winter mountain bikes, and cross-country skiing. No full-size vehicles will be in use. Visitor information will consist of maps available at BLM offices and shelter cabins, websites, and minimal signage along the trail. Signs will be directional in nature. Signs identifying the INHT would be visible at access points and cabins and periodically along the trail. BLM staff will be present occasionally, most frequently during permitted events. Partnerships will be explored and utilized to maintain a minimal management presence. Management controls would include, but not be limited to, limits to group size, limits to duration of stay, waste management (human and litter), and permitted activities and commercial filming. Dispersed recreation uses would be lightly managed, with little to no cost to the public.

MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

Recreation and Visitor Services Program (e.g., planning-area wide camping limits, restrictions on shooting sports. Note that many recreation management actions fall under implementation decisions described below).

- Off-highway vehicle (OHV) area designation is established as Limited (details on limitations are provided in Section 2.2.7 of the Approved Resource Management Plan).
- Apply administrative actions to create and maintain semi-primitive motorized recreation opportunities, experiences, and outcomes.
- Define stay limits for non-permitted dispersed camping and BLM Public Shelter Cabin casual use. Special recreation permit (SRP) use of INHT public shelter cabins is limited to non-exclusive use of a cabin for one overnight, 12-hour period as part of travel expeditions making use of the trail.

Other Programs:

- Visual Resource Management Decisions
- Travel Management Decisions

(Note that the SRMA does not cross areas of medium to high locatable mineral potential. Leasable mineral potential is considered low throughout the planning area.)

IMPLEMENTATION DECISIONS (analyzed in Land Use Plan) or IMPLEMENTATION GUIDANCE (additional NEPA required)

Management:

- Road and trails will be managed in partnership with local communities to provide access for subsistence activities with minimal change to the current physical setting.
- The BLM will manage public shelter cabins in a manner that supports casual use of these facilities.
- The BLM will manage public shelter cabins to promote casual use by the public as a priority over use by commercial guide/outfitters.
- The BLM would apply stay limits in public shelter cabins to achieve social recreation setting characteristics (RSCs).
- The BLM will limit SRPs as necessary to avoid use conflicts.

Administration:

- Limits to SRPs will be applied as needed to minimize use conflicts (casual, commercial, subsistence) and achieve desired benefits and outcomes.
- Issuance of SRPs would include appropriate stipulations for the protection and management of natural, cultural, and paleontological resources and would minimize potential impacts to those resources to the extent practicable.
- SRPs for competitive events may be limited in number, timing (e.g., between February 1 and April 1) and trail segment to prevent overlap and minimize potential for conflicting use.
- Exclusive use of public shelter cabins may not be permitted to ensure health and safety of casual and subsistence users.

- An adaptive management monitoring program with baseline conditions, impact thresholds, and triggers for actions would be established for the purposes of resource protection, visitor safety, and/or enhancing targeted outcomes and setting character.
- Develop new restrictions and/or facilities, as needed, for the purposes of site protection, visitor safety, and/or enhancing targeted outcomes and setting character.
- New restrictions and/or facilities may be developed for the purposes of site protection, visitor safety, and/or enhancement of targeted outcomes and setting character.

Information and Education:

- Maps will be available at BLM offices, shelter cabins, and websites.
- Minimal signage will exist along the trail. Signs will be directional in nature.
- BLM staff will be present occasionally, most frequently during permitted events.
- Partnerships will be explored and utilized to maintain a minimal management presence.

Monitoring:

- Visitor use monitoring may occur during permitted event and non-event time periods to assess demand, user conflict, evidence of use (litter, waste), etc.

Rohn Site Recreation Management Area**SUPPORTING INFORMATION**

The BLM manages the Rohn Air Navigation Site within the INHT. For the past century, Rohn has been the site of the only habitable public shelter between Rainy Pass Lodge, 25 air miles to the east, and Nikolai, 60 air miles to the north. The site consists of 400 acres of upland forest at the confluence of the South Fork Kuskokwim River and the Tatina River. Built facilities include a 1,200-foot unmaintained gravel airstrip, the Primary Trail of the INHT and a segment of Connecting Trail, and the historic Rohn Public Shelter Cabin. The public shelter cabin is the oldest historically intact structure open for public use and managed by the BLM on the entire trail.

The first roadhouse was established at Rohn in 1910. It was used throughout the Iditarod gold rush until it burned down in 1924. Subsequently, a new cabin was built and survived until it was washed away by the Tatina River in 1984. In the late 1930s, the 400-acre site was withdrawn for public use by the U.S. Department of Interior for the development of an emergency airstrip and shelter cabin by the Civil Aeronautical Administration. At that time, the Civilian Conservation Corps built what is today known as the Rohn Public Shelter Cabin.

ROHN MANAGEMENT ZONE (RMZ) OBJECTIVE(S)**Objective Statement:**

Today, the Rohn Public Shelter Cabin is one of the most well-known cabins on the INHT, having been used for over 40 years as the first checkpoint for Iditarod Sled Dog Racers north of the Alaska Range. The shelter cabin and airstrip are also used as a checkpoint on the Iron Dog Race and frequently as a base camp in late summer for sheep hunters. The 400-acre site also houses a set of automatic, Internet-based weather monitoring cameras, installed and maintained by the Federal Aviation Administration, which provide real-time images of weather conditions over the adjacent Alaska Range. Due to the historic significance of Rohn, the site is eligible for and managed (per BLM policy) as if it were listed on the National Register of Historic Places, to protect its historic values.

Activities: Within the Rohn RMZ of the INHT SRMA, manage for the primary activities of group use, camping and hunting, and for the secondary activities of snowmobile riding and sightseeing. Monitoring by staff to ensure this objective is being met will be performed on an annual basis, with an emphasis on winter months.

Experiences:

- Testing one's endurance
- Enjoying a risk-taking adventure
- Togetherness with similar people
- Participating in group outdoor activities
- Being in control of things that happen
- Enjoying the sights, sounds, and smell of nature
- Enjoying an escape from crowds of people
- Gaining recognition from others for completing a trip to Rohn RMZ
- Feeling good about solitude, isolation, and independence

Benefits:

Personal:

- Greater self-reliance
- Improved skills for outdoor enjoyment, both by one's self and in group settings
- Improved outdoor knowledge and self-confidence
- Increased adaptability
- Stronger ties with family and friends
- Become a more well-informed and responsible visitor
- Increase one's personal relationship with the natural world
- Gain a greater sense of adventure

Community/Social:

- Increased awareness of nearby communities
- Increased revenue to nearby communities
- Greater protection of area historic structures

Environmental:

- Heightened awareness of the natural world
- Greater management of fish, wildlife, and plant resources

RECREATION SETTING CHARACTERISTIC DESCRIPTIONS

Physical Components (e.g., remoteness, naturalness, visitor facilities):

- Rohn is within 0.5 mile of a trail and airstrip.
- The site consists of an existing unmaintained gravel airstrip, cabin, and toilet, which have partially modified the existing natural landscape but are not visible from the entire zone.
- Simple/basic recreation developments such as the Rohn shelter cabin and primitive toilet, hazardous materials storage locker, portal sign, and site maintenance tools are found on-site.

Social Components (e.g., contacts, group size, evidence of use):

- There are two seasons of use at the Rohn RMZ; the high season occurs from February to March, and visitors can expect to see an average of 15-29 people on the trail per day, in group sizes of 3 or fewer. The low season occurs from April to January, and visitors can expect to see fewer than 3 other people each day, which often consist of passengers of small airplanes landing at the site.
- Evidence of use is limited to small localized areas of vegetation alteration and compacted/bare soils at the shelter cabin and adjacent to the airstrip. Surface vegetation will continue to be managed to allow minimal wear and bare soils along the trail.

Operational Components (e.g., access [types of travel], visitor services/information, management controls):

- Winter access is predominantly by aircraft, with some dog mushing, winter mountain biking, and snow machine riding. Summer access is possible by aircraft only.
- Visitor information will consist of maps available at BLM offices and shelter cabins, websites, and minimal signage at the cabin and along the trail. Signs will be directional in nature. BLM staff will be present occasionally, most frequently during permitted events. Partnerships will be explored and utilized to maintain a minimal management presence. Management controls would include, but not be limited to, limits to group size, limits to duration of stay, waste management (human and litter), and permitted activities and commercial filming. Dispersed recreation uses would be lightly managed and little to no cost to the public.
- Shelter cabin rules will be posted in plain sight at the cabin. Permitted use such as organized group activities includes restrictions, limitations, and stipulations on such acts as group size, camping ethics, human waste, and litter disposal.

MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

Recreation and Visitor Services Program

- The Rohn Site RMZ would be established (363 acres) within the INHT SRMA.
- Licensed non-government contracted private transporters (with exception of guide/outfitters) would not be required to obtain an SRP to access the Rohn Site. The BLM would continue to monitor the situation and evaluate implementing an SRP requirement for transporters should use increase or conflict arise.
- Only the use of dead and down trees for the wood stove in the BLM Public Shelter Cabin would be allowed. Cutting of live trees would be prohibited.
- Non-permitted use would be limited to 3 consecutive days and to no more than 6 days in total in a calendar year.

Other Programs:

- Travel Management Decisions
- Visual Resource Management Decisions

IMPLEMENTATION GUIDANCE

Management: (e.g., roads, trails, facilities, use restrictions, services, concessions.)

- Continue to manage the Rohn Site in a manner that supports group use and minimizes conflict between commercial, casual, and subsistence use.

Administration: (e.g., permits, fees, allocation systems, partnerships)

- Consider limits requiring SRPs for non-government contracted private transporters accessing the Rohn Site (e.g., air taxis, boat operators, horseback).
- Consider limits on commercial use of the BLM Public Shelter Cabin to minimize conflict.

Information and Education:

- Maps will be available at BLM offices, shelter cabins, and websites.
- Minimal signage will exist along the trail. Signs will be directional in nature.
- BLM staff will be present occasionally, most frequently during permitted events.
- Partnerships will be explored and utilized to maintain a minimal management presence.

Monitoring:

- Visitor use monitoring may occur during permitted event and non-event time periods to assess demand, user conflict, evidence of use (litter, waste).

BSWI Undesignated Recreation Lands

BSWI UNDESIGNATED RECREATION LANDS OBJECTIVE(S)

BSWI Undesignated Recreation Lands Objective Statement:

Under the Approved Resource Management Plan, the remainder of the planning area outside of the INHT SRMA would be considered “BSWI Undesignated Recreation Lands.” This area consists of the North and South Nulato Hills, the Yukon River Lowlands, the Kuskokwim Mountains, the Tanana-Kuskokwim Lowlands, the Lime Hills, and the Ahklun Mountains.

Within the BSWI Undesignated Recreation Lands, dispersed recreation would be lightly managed and without additional large investment developed recreation facility cost to the public. The BSWI Undesignated Recreation Lands will be managed annually for the primary activities of hunting and dispersed camping and for the secondary activities of snowmobile riding and fishing.

Activities: Within the BSWI Undesignated Recreation Lands, provide a setting in which the following experiences and benefits could be achieved:

BSWI Undesignated Recreation Lands Experiences:

- Escaping crowds
- Experiencing solitude
- Enjoying the sights, sounds, and smells of nature
- Testing one’s abilities (secondary experience)

BSWI Undesignated Recreation Lands Benefits:

Personal:

- Enhanced sense of personal freedom
- Enhanced sense of competence
- Greater sense of adventure

Environmental:

- Heightened awareness of the natural world
- Greater management of fish, wildlife, and plant resources

RECREATION SETTING CHARACTERISTIC DESCRIPTIONS

BSWI Undesignated Recreation Lands Physical Components (e.g., remoteness, naturalness, visitor facilities):

- Most of the Undesignated Recreation Lands is more than 0.5 mile from mechanized or motorized trails/routes and navigable waterways.
- The natural landscape is undisturbed.
- There are no structures, visitor facilities, or trailheads. Few existing trails were developed by traditional subsistence activities and village-to-village transportation and will be managed as such.

BSWI Undesignated Recreation Lands Social Components (e.g., contacts, group size, evidence of use):

- Fewer than three encounters per day at dispersed/primitive campsites, primarily passengers of small fixed wing aircraft; groups most often consist of three or fewer people.
- There are no alterations to the natural terrain, and sounds of people are mostly absent, with the exception of the sounds of the occasional fixed-wing aircraft.

BSWI Undesignated Recreation Lands Operational Components (e.g., access [(types of travel)], visitor services/information, management controls):

- Public recreational access in the winter is rare to non-existent away from the INHT SRMA. Summer access is by fixed-wing aircraft with tundra tires, helicopter (rotor wing) access, and by jet boats along major rivers (e.g., Yukon, Anvik, Unalakleet, and Kuskokwim Rivers).
- Visitor information will consist of maps available at BLM offices and shelter cabins, websites, and minimal signage along the trail. Signs will be directional in nature. BLM staff will be present occasionally, most frequently during permitted events. Partnerships will be explored and utilized to maintain a minimal management presence. Management controls would include, but not be limited to, limits to group size, limits to duration of stay, waste management (human and litter), and permitted activities and commercial filming. Dispersed recreation uses would be lightly managed and without additional large investment developed recreation facility cost to the public.

MANAGEMENT ACTIONS AND ALLOWABLE USE DECISIONS

BSWI Undesignated Recreation Lands Recreation and Visitor Services Program:

- Stay limits for non-permitted dispersed camping would be limited to 14 consecutive days within a 28-day period. After a camp has been occupied for 14 days, the camp must be moved at least 2 miles to start a new 14-day period.
- The BSWI Undesignated Recreation Lands would follow travel and transportation management decisions for “All lands not designated as CSUs,” as described in Section 2.2.7 of the Approved Resource Management Plan.

Other Programs:

- Travel Management
- Visual Resource Management
- Fisheries
- Wildlife
- Locatable Minerals
- Commercial Woodland Harvest
- Lands and Realty

IMPLEMENTATION GUIDANCE

BSWI Undesignated Recreation Lands Management:

- Manage use of public shelter cabins by guide/outfitters in a manner that minimizes conflict with other casual, subsistence, or commercial use.

BSWI Undesignated Recreation Lands Administration:

- Based on continued future feedback in documented areas of conflict, BLM funding and priorities, the BLM will consider the establishment of an SRP Allocation Plan/Process for guide/outfitters. The plan or process might consider elements of what the National Park Service and U.S. Fish and Wildlife Service use for similar decisions in Alaska, as well as resemble a previous cooperative effort between the State of Alaska and BLM to develop a Guide Concession Program.⁴ The effort would define the following:
 - Allocation limits for big game guide/outfitters operating within each Guide Use Area (GUA) of the BSWI Undesignated Recreation Lands
 - The maximum number of GUAs a guide/outfitter may operate in
 - The maximum number of assistant guides and employees, clients, operating days, and camp distances
 - Guide/outfitter evaluation methods, such as demonstrated experience, operation strategies used to conserve and minimize impacts to natural resources, business plans, and practices that demonstrate cooperation with local communities
 - Penalties for violations, including citations, convictions, and default history (including felony or misdemeanor game and non-game related convictions or violation of guide licensing requirements)

BSWI Undesignated Recreation Lands Information and Education:

- Educate guide/outfitters on the goals and objectives of the BSWI Undesignated Recreation Lands.
- Provide information to guide/outfitters to use for client education of the goals and objectives for the BSWI Undesignated Recreation Lands.

BSWI Undesignated Recreation Lands Monitoring:

- Reassess guide/outfitter guidelines every year (at a minimum) to determine if established management objectives for the BSWI Undesignated Recreation Lands are not being met.
- Monitor SRPs harvest and camp locations on post-use reports annually to ensure management objectives are being met.

⁴ Alaska Department of Natural Resources. 2020. Guide Concession Program webpage. Available at <http://dnr.alaska.gov/mlw/gcp/>.

Appendix J: Climate Change and Adaptive Management

Appendix J. Climate Change and Adaptive Management

Section 1. Introduction

As used by the Bureau of Land Management (BLM), the term *adaptive management* refers to a decision-making process that promotes flexible decisions that can be adjusted as outcomes from management actions and other events become better understood over time (DOI 2009). Careful monitoring of outcomes helps adjust policies and operations as part of an iterative learning process. Adaptive management also recognizes the importance of natural variability in contributing to ecological resilience and productivity. Under adaptive management, decisions, plans, and proposed activities are treated as working hypotheses rather than final solutions to management of resources and uses.

Over the expected life of the Bering Sea–Western Interior (BSWI) Approved Resource Management Plan (RMP), climate variability in Alaska is likely to create changes to landscape conditions, wildland fire risks, animal habitats, and community resources that cannot be pinpointed in advance. Consequently, the RMP emphasizes adaptive management to provide the flexibility to respond to new conditions as they occur, within a framework of consistent policy standards and guidelines.

This appendix documents anticipated and/or potential changes to resources managed in this RMP as a result of climate change and how the adaptive management approach will be used throughout the life of the RMP to address and manage for those changes. Some resources and resource uses are likely to be more impacted by climate variability than others. This appendix will allow BLM staff, partner agencies, project sponsors, and members of the public to knowledgeably participate in the monitoring of outcomes and response to changes from variable conditions.

Section 2. Resources and Resource Uses

2.1 Soils

Warmer air temperatures and subsequent rise in soil temperature are not likely to substantially alter soil-forming processes. However, a rise in soil temperature may affect nutrient cycling and evapotranspiration (drier or wetter soil conditions). Decomposition of plant material has historically been very slow in the planning area. However, as soil temperatures rise and permafrost thaws, decomposition rates will increase that will alter nutrient cycles, affecting plant communities and other ecosystem functions. Plant root growth in permafrost areas is limited to the active soil layer (the topmost soil horizons that thaw every summer). As soil temperatures rise, the active layer deepens, and that soil becomes destabilized, leading to erosion and land subsidence. Structurally, the increase in active layer depth is expected to have a negative effect on the ability of soil to carry loads, such as roads and structures.

Monitoring of climate change impacts on vegetation shifts, changes to permafrost, and resulting changes in soil erodibility would be used to prioritize the management actions listed above, and, if necessary, mandate measures to protect soils from surface-disturbing BLM-permitted activities and casual use. To the extent possible, the BLM would conduct and/or require insulation of disturbed permafrost areas to

prevent additional permafrost thaw and associated possible subsidence, by restoring the natural ground surface thermal regime, particularly on steep erosion-prone slopes.

2.2 Water Resources and Fisheries

According to the Scenarios Network for Alaska and Arctic Planning (SNAP), 50-year modeled surface water temperature may increase in some watersheds or decrease in other areas where more ice melt is occurring. Other potential changes could include:

- Water flow increase or decrease;
- Sedimentation from melting permafrost and changes related to peak-flow events;
- Lake bed drying;
- Invasive species introduction due to changing condition; or
- Changes to the occurrence, quantity, distribution, movement, and quality of water affecting fish production and survival.

A combination of continued monitoring (including Assessment, Inventory, and Monitoring [AIM]) and projected climate change modeling through SNAP would be used to adaptively shift fisheries management to high-priority watersheds supporting significant fisheries that are at risk due to climate change or a combination of climate change and resource use. As fish distributions shift in response to changing landscape conditions, the best available fish distribution data would be used to update the Aquatic Resource Value model and identification of high-value watersheds as part of the adaptive management process.

2.3 Vegetation

A combination of AIM monitoring, State and Transition Models developed from the approved Ecological Site Description System, and Rapid Ecoregional Assessments would be used to evaluate potential changes in vegetative communities and to adjust the identified management actions to shift with any changes in vegetation cover type.

2.4 Wildlife

The direct connection between vegetation cover types and wildlife habitat would allow the adaptive management described for vegetation cover types to be used to guide adaptive shifts in habitat management for wildlife. This adaptive management would also include the ability to shift proposed timing restrictions to adapt to changes around critical periods, such as nesting or calving, which may result from climate change. For example, nesting seasons may start earlier compared to historic seasons because earlier spring snow and ice breakup and earlier availability of prey.

2.5 Nonnative Invasive Species

Continuing monitoring of locations and extent of nonnative invasive species infestations would be used to shift management priorities and eradication efforts to target changes caused by climate change.

2.6 Wildland Fire

The interactions between climate change, wildland fire, and resource objectives would be monitored and measured. Fire management strategies and practices would be adapted as necessary to ensure resource objectives for vegetation, air quality, wildlife, and forestry, paleontological resources, water, and fisheries continue to be met. Investments in science, research, and monitoring would be used to understand how ecosystems respond to environmental changes and to develop mitigations.

2.7 Cultural Resources

The following indicators of risk to cultural resources would be monitored as part of other resource programs: permafrost thawing, increased erosion (river and coastal), and increased wildland fire activity. Based on this monitoring, management would be shifted to prioritize surveying and stabilizations of significant cultural resources at risk.

2.8 Paleontological Resources

The BLM would monitor potential risks of climate change to geologic units with high likelihood of having significant paleontological resources and prioritize those areas for survey. If accelerated soil erosion from climate change or other processes is damaging significant paleontological resources, the BLM would work with partners (as appropriate) to mitigate these impacts, salvage specimens, and, if possible, reduce further threat to other specimens at the site.

2.9 Visual Resources Management

Evidence of climate change trends affecting visual resources has not been analyzed and documented in the planning area. However, the warming trend experienced over the last 50 years has resulted in substantial increases in wildland fire, resulting in large burn areas that are slow to recover. These burn areas affect, and will continue to affect, visual resources by creating readily apparent contrast in vegetation cover until revegetation occurs.

By the 2060s, it is forecast that erosion caused through thermokarst or other permafrost slumping and thaw may affect viewsheds near large rivers and coastlines. If climate warming or any subsequent effect of warming promotes human development in the planning area, that could also affect visual resources.

2.10 Lands with Wilderness Characteristics

Evidence of climate change trends affecting lands with wilderness characteristics have not been analyzed and documented in the planning area. The warming trend experienced over the last 50 years has not been shown to be a cause in altering the quality of wilderness character in any regions of the planning area.

A re-inventory of project areas for wilderness characteristics would occur whenever projects are triggered for adaptive management to climate change.

2.11 Forestry and Woodland Products

Monitoring of vegetation and shifts to climate change would inform shifts in location and priority for managing forestry and woodland resources.

2.12 Grazing

AIM monitoring, State and Transition Models, and Alaska-specific rangeland health monitoring in grazed areas would be used to determine appropriate adaptive shifts in grazing required to address potential climate change effects. These could include changes in caribou migration and changes in forage type, coverage, and location.

2.13 Locatable and Salable Minerals

The BLM would continue working with permittees to monitor climate change impacts on mining and would adjust individual plan requirements, as needed, to address any such impacts. These could include (but are not limited to) the following:

- Changes in requirements for mine operations to address potential changes in water availability due to climate change (e.g., requirements for dust abatement, stringent control of hazardous materials at mine site, differing requirements for tailings ponds and dams).
- Changes in permafrost conditions and how that may change requirements related to tailings ponds/dams, overland access, and available placer resources.
- Expanded exploration potential for resources at recently exposed areas from retreating glaciers.
- Use of seed mixtures that provide vegetation cover types that are resilient to potential climate changes. This may involve alterations in desired future vegetation conditions that emphasize resiliency, ecosystem function and comparable habitat value over restoration to native species only.

2.14 Leasable Minerals

The BLM has designated the bulk of the planning area open to leasable exploration, even though the demand does not currently exist. This is to allow flexibility to adjust to increased accessibility or increased demand by local communities as a result of climate change.

2.15 Lands and Realty

As required based on changes in climate, the BLM would consider providing opportunities for community relocation using right-of-way grants, permitting, exchanges, Recreation and Public Purposes Act, leases, or other appropriate permitting actions as determined mutually beneficial for the community and the long-term sustainability of BLM-managed public lands.

2.16 Recreation and Visitor Services

Climate change has increased interest in glacier viewing due to marked recession of many glaciers in Alaska. The planning area does not contain glaciers, but increased tourism from this associated activity in other parts of the state could raise visitation with other recreation opportunities within the planning area.

Summer recreation activities such as hunting and camping have increased over the last 50 years. Some of this increase may be attributed to an increase in snow-free days, although this increase could also be attributed to improved modes of access (e.g., aircraft, off-highway vehicles [OHVs]) (ADNR 2016). However, access for recreation use in the roadless planning area requires a commitment of resources substantially greater than recreation access in roaded areas. Access for summer recreation predominantly relies either on small aircraft or small boats. Overland access for summer recreation is very difficult due

to the predominance of impassable wetlands. Access for winter recreation is typically by small aircraft and snowmobiles. The frequency of participation in recreation activities that do not involve resource consumption (e.g., hunting, fishing, berry picking) is extremely low. The largest number of “non-consumptive” recreationists may involve persons travelling with or spectating long-distance winter overland races such as the Iditarod Sled Dog Race or Iron Dog Snowmobile Race.

Conversely, winter recreation activity use levels, such as snowmobiling on the Iditarod National Historic Trail (INHT), may have decreased within the last 50 years due to fewer days with adequate snow cover. In general, summer recreation levels could increase, and winter recreation levels could decrease with the expected lengthening of the summer season and warmer average annual temperatures. However, increasing fire frequency could reduce visitation to areas impacted by smoke or recently burned areas. The traveling season on the INHT could shorten due to predicted wintertime warming.

Travel management actions identified along the INHT and Unalakleet Wild River corridors are designed to address climate change impacts.

2.17 Travel and Transportation Management

Travel and transportation are limited by seasonal changes in ground cover (e.g., tundra, wetland, snow). Management will be defined to allow flexibility for adapting to seasonal conditions and any subsequent new technology to overcome changing conditions. Additionally, travel limitations related to sensitive vegetation cover types and habitats would allow flexibility in travel management to changes in the location of these sensitive habitats due to climate change.

In terms of adaptive management, if resource monitoring required under the Approved RMP indicates substantial travel-related disturbance to these resources, implementation-level travel management planning would be conducted at a geographic scale appropriate to address those concerns.

2.18 National Trails

The BLM has developed adaptive management that allows flexibility in seasonal limitations on OHV use to ensure that this type of use occurs only when conditions are appropriate to prevent impacts. Because these seasonal limitations are based on site condition, not specific dates, they are flexible and responsive to climate change. Key features along the INHT are also prioritized for fuels reduction and fire management to reduce risks associated with potential increased fire intensity and frequency due to climate change. Additionally, proposed trail management includes the monitoring of shifting resource condition with resulting changes in allowed uses to minimize that damage.

Based on potential changes in climate, the BLM would promulgate supplementary rules, consistent with the INHT’s comprehensive management plan, to implement time-of-use rules related to winter use beginning and ending dates that reflects the actual yearly beginning and ending dates of sufficient snow cover.

2.19 Wild and Scenic Rivers

Limitations on OHV use in the Wild and Scenic River corridors were developed to be responsive to conditions, not fixed dates. This allows flexibility for allowable OHV use to adjust with changing climatic conditions.

2.20 Hazardous Materials and Health and Human Safety

The management criteria for prioritizing cleanup of hazardous materials and for storing and using hazardous material are based on material and site condition, and therefore would be adaptive responsive to any changes associated with climate change.

2.21 Support for BSWI Communities

Communities in rural Alaska and the Arctic are especially vulnerable to climate change (Arctic Council 2013). Regular monitoring and collaboration with rural communities will provide a mechanism for the BLM to be responsive to community needs in the face of climate change. Additionally, adaptive management in other resource areas such as Vegetation, Wildlife, Cultural, and Transportation will assist in continuing to provide for long-term sustainability and access to resources upon which these communities depend and that are part of their cultural heritage.

Section 3. References

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