



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

National Petroleum Reserve in Alaska

Integrated Activity Plan Record of Decision

December 2020

Prepared by:
U.S. Department of the Interior
Bureau of Land Management

In Cooperation with:
Bureau of Ocean Energy Management
National Park Service
Iñupiat Community of the Arctic Slope
North Slope Borough
State of Alaska
U.S. Fish and Wildlife Service

Mission

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

Cover Photo: Northeast National Petroleum Reserve in Alaska.
Photo by Bob Wick (BLM).

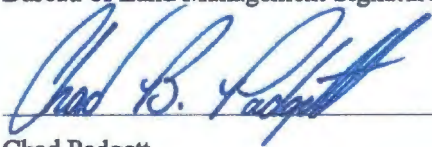
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Record of Decision

I hereby recommend adoption of Alternative E of the National Petroleum Reserve in Alaska Integrated Activity Plan Environmental Impact Statement as described further and modified herein, and subject to the lease stipulations, required operating procedures, and lease notices developed by the Bureau of Land Management for that alternative, as reflected in this Record of Decision.

Bureau of Land Management Signature:



Chad Padgett
State Director, BLM Alaska

I hereby adopt Alternative E of the National Petroleum Reserve in Alaska Integrated Activity Plan Environmental Impact Statement as described further and modified herein, and subject to the lease stipulations, required operating procedures, and lease notices developed by the Bureau of Land Management for that alternative, as reflected in this Record of Decision. My approval of this Decision 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.

Departmental Approval:



David L. Bernhardt
Secretary of the Interior

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Record of Decision

SUMMARY

This Record of Decision (ROD; Decision) documents the Secretary of the Interior's decision regarding the Bureau of Land Management's (BLM) future management of the National Petroleum Reserve-Alaska (NPR-A; Reserve; Petroleum Reserve). The plan adopted by this Decision (see Chapter 1 of the Final environmental impact statement (EIS)) balances the Secretary's responsibilities to provide for oil and gas leasing, exploration, and development consistent with the total energy needs of the nation and to protect and conserve the important surface resources and uses of the Reserve.

This Decision is reached after considering input from a wide variety of stakeholders. Early in the process, the BLM invited the North Slope Borough (NSB), the Inupiat Community of the Arctic Slope (ICAS), the State of Alaska, and federal agencies with expertise relevant to NPR-A's management to join as cooperating agencies. The NSB, the State, ICAS, the U.S. Fish and Wildlife Service, the National Park Service and the Bureau of Ocean Energy Management became cooperating agencies. These agencies were asked for their suggestions for alternatives, including mitigation measures, and reviewed administrative drafts of the Draft and Final Integrated Activity Plan/Environmental Impact Statement (IAP/EIS). The cooperating agencies' contributions to the plan are greatly appreciated. The BLM as the lead agency for the plan is responsible for the alternatives and the development of the ultimate decision in this ROD.

In addition to inclusion of cooperating agencies' input into the plan, the BLM initiated tribal consultation early in the planning process with tribes on the North Slope of Alaska whose members might be impacted. This included tribal entities from Anaktuvuk Pass, Atkasuk, Nuiqsut, Point Lay, Utqiagvik and Wainwright, as well as the tribal members of the Western Arctic Caribou Herd Working Group and the NPR-A Working Group. The BLM also held consultations with Alaska Native Claims Settlement Act corporations Arctic Slope Regional Corporation and Kuukpik Corporation. The BLM conducted public scoping meetings and meetings to take comments on the Draft IAP/EIS in Anaktuvuk Pass, Atkasuk, Nuiqsut, Point Lay, Utqiagvik, Wainwright, Fairbanks, and Anchorage, in addition to taking comments online, by fax, and through the mail. More informally, the BLM met with representatives of interested parties, including local and state governments, tribes, Alaska Native corporations, and industry and environmental organizations.

This Decision adopts the Preferred Alternative identified in the June 2020 Final IAP/EIS, and includes clarifications and modifications outlined in Appendix C. It makes approximately 18,581,000 acres available for oil and gas leasing, and makes lands available for application for pipelines and other infrastructure necessary for potential owners of offshore leases in the Chukchi and Beaufort Seas to bring oil and gas across the NPR-A to the Trans-Alaska Pipeline System (TAPS) and similar gas related infrastructure that could be built in the years ahead. While providing these opportunities for oil and gas development, the plan provides important protections for surface resources. This Decision establishes performance-based required operating procedures and lease stipulations, which apply to oil and gas and, in some cases, non-oil and gas activities within the NPR-A (see Appendix A). Additional required operating procedures and lease stipulations designed to provide protections for sensitive bird populations and the Teshekpuk and Western Arctic Caribou Herds are established in the Teshekpuk Lake and Utukok River Uplands Special Areas. The plan adjusts the boundaries of the Teshekpuk Lake Special Area and the Utukok River Uplands Special Area based on the most current information about the distribution of important species in the NPR-A and maintains the Peard Bay and Kasegaluk Lagoon Special Areas. Under this Decision the protections in place for raptors in the

Colville River Special Area now apply to the entire NPR-A, so the Colville River Special Area is consequently eliminated because its associated protections are no longer unique to the Special Area.

Due to the dynamic nature of public land resources, it is necessary that plans such as this are maintained, amended, and, when necessary, revised. This plan will remain in place unless and until the agency determines that new circumstances require a different approach to management of the Reserve.

1. DECISION

The plan described in this ROD is hereby adopted for future management of the NPR-A. The plan includes decisions regarding:

- *Areas designated for oil and gas leasing, for pipelines and other infrastructure, and for special protections:* These land allocations include making areas available or unavailable for oil and gas leasing, identifying areas in which nearly all new permanent infrastructure would be prohibited or in which applications for pipelines and other infrastructure would be consistent with the plan, adjusting Special Area boundaries, and retaining the longstanding management of twelve rivers or river segments to protect their free flow, water quality, and outstandingly remarkable values.
- *Stipulations and required operating procedures (ROPs):* The stipulations and ROPs will regulate permitted activities (stipulations attach to oil and gas leases and apply only to oil and gas leaseholder activities) in NPR-A to meet resource and use objectives and thereby mitigate impacts of those activities.

1.1 Statutory Background

The BLM undertakes this plan in accordance with its responsibilities to manage the NPR-A under the authority and direction of the Naval Petroleum Reserves Production Act (NPRPA) and Federal Land Policy and Management Act of 1976 (FLPMA). The NPR-A IAP/EIS addresses these responsibilities through a National Environmental Policy Act (NEPA)-required environmental impact statement (EIS).

Under the NPRPA, the Secretary is required to conduct oil and gas leasing and development in the NPR-A (42 USC 6506a). The Department of the Interior and Related Agencies' Fiscal Year 1981 Appropriations Act specifically directs the Secretary to undertake "an expeditious program of competitive leasing of oil and gas" in the Petroleum Reserve. The NPRPA provides that the Secretary "shall assume all responsibilities" for "any activities related to the protection of environmental, fish and wildlife, and historical or scenic values" (42 USC 6503(b)) and authorizes the Secretary to "promulgate such rules and regulations as he deems necessary and appropriate for the protection of such values within the Reserve." The NPRPA's implementing regulations are found at 43 Code of Federal Regulations Part 2360.

The Department of the Interior and Related Agencies' Fiscal Year 1981 Appropriations Act exempted the NPR-A from Section 202. Section 202 (43 USC 1712) requires the preparation of land use plans (called resource management plans, in regulations—43 Code of Federal Regulations Part 1600—adopted by the BLM). Because of the exemption from FLPMA Section 202 and that the NPRPA is a dominant-use statute, the IAP is not being developed as a resource management plan and does not consider sustained yield and multiple use. While the IAP analyzes a range of possible future BLM management practices for NPR-A in a manner similar to that done in a resource management plan, it is conducted consistent with NEPA

regulations—40 Code of Federal Regulations Parts 1500–1508¹—rather than FLPMA regulations. And, consistent with the NPRPA, the NPR-A IAP/EIS addresses a narrower range of management than a resource management plan (e.g., it makes no decisions on opening lands to hard rock or coal mining).

Under the FLPMA, the Secretary has broad authority to regulate the use, occupancy, and development of public lands and to take whatever action is required to prevent unnecessary or undue degradation of the public lands (43 USC 1732). Each of the alternatives described in Chapter 2, consistent with the NPRPA and the mandates of 40 Code of Federal Regulations 1502.14, presents a different approach to such regulation of the public lands and presents different approaches to prevent unnecessary and undue degradation.

1.2 Areas Designated for Oil and Gas Leasing, Pipelines and Other Infrastructure

This Decision makes approximately 18,581,000 million acres of the approximately 22.8 million acres of subsurface managed by BLM in the NPR-A available for oil and gas leasing. (See Map 1; maps appear at the end of the ROD.) Of the 18,581,000 million acres, approximately 132,000 acres in the northeastern part of the Reserve would not be available for leasing until ten years after this ROD is signed, when a ten year deferral established by this Decision in the Teshekpuk Lake Special Area expires.

Under this Decision approximately 4.1 million acres, comprising a large majority of lands within the Utukok River Uplands Special Areas and all of the Peard Bay and Kasegaluk Lagoon Special Areas are not available for oil and gas leasing in order to protect and conserve important surface resources and uses in these areas (Map 1).

Under this Decision, new infrastructure would be allowable in over 13 million acres, including in much of the Teshekpuk Lake Special Area (Map 3). Limited new infrastructure is allowed in approximately 5 million acres along certain river corridors and in certain parts of Special Areas. The plan prohibits most new permanent infrastructure in approximately 4.3 million acres, consisting of the majority of the Utukok River Uplands Special Area and a small area around Teshekpuk Lake. Infrastructure prohibitions in the Reserve do not apply in the following cases:

- Subsistence structures (camps and cabins)
- Community infrastructure, defined as an infrastructure project that responds to community needs, such as roads, power lines, fuel pipelines, and communications systems, and is owned and maintained by or on behalf of the North Slope Borough (NSB), city government, the State of Alaska, a tribe, or an ANCSA corporation. This exception applies across the NPR-A unless otherwise noted in specific areas.
- Single season ice infrastructure
- Exploratory wells that are drilled and abandoned in a single season
- Infrastructure in support of science and public safety. For example, research facilities and unoccupied navigation aids could be permitted following evaluation of project proposals.
- Construction, renovation, or replacement of facilities on existing gravel pads at previously disturbed sites. New infrastructure at such sites may be permitted if the facilities will promote safety or environmental protection.

¹ Unless otherwise noted, references to the CEQ regulations throughout this Record of Decision and within the underlying EIS are to the regulations in effect prior to September 14, 2020. The revised CEQ regulations effective September 14, 2020 are not referred to in this Record of Decision or in the underlying EIS because the NEPA process associated with the proposed action began prior to this date. See 40 CFR 1506.13.

Lands in which new infrastructure is allowed are available for application for permits for such infrastructure, including infrastructure in support of offshore development in State and Federal waters. Decisions on the placement of new infrastructure will be made following a rigorous, multi-agency NEPA review, which will benefit from expertise from a wide range of specialists, such as biologists; subsistence, cultural, and paleontological specialists; soils and water scientists; geologists; engineering subject matter experts; economists; project estimators; and respected traditional knowledge holders to provide sound consideration of project routes and requirements.

1.3 Areas Designated for Special Protections

In accordance with Section 104(b) of the NPRPA (42 USC 6504(a)), special area boundaries reflect those areas containing significant subsistence, recreational, fish and wildlife, or historic or scenic values that require unique management prescriptions beyond the base level stipulations and ROPs that apply throughout the entire Reserve. The identification of areas where significant surface values exist is a fact-based inventory determination that is made based on the best available information. In areas where a significant value does not require unique management prescriptions, such as where the base level stipulations and ROPs throughout the NPR-A ensure protection for the value, special area designation is not warranted.

In the plan adopted by this Decision the boundaries of the Teshekpuk Lake and Utukok River Uplands Special Areas are adjusted to account for new information about the calving distribution and migratory paths of the Teshekpuk Caribou Herd and Western Arctic Caribou Herd, respectively.

Protections established in the 2013 Record of Decision for raptors and raptor habitat in the Colville River Special Area are extended to the entire Reserve. Consequently, since its associated management prescriptions to protect raptors are no longer unique to the Special Area, the Special Area is eliminated.

The adopted plan commits the BLM to protect the free flow, water quality, and outstandingly remarkable values of the rivers and river segments determined to be suitable for designation as Wild and Scenic rivers. This Decision does not recommend these rivers for Wild and Scenic River designation, but by committing the BLM to protect the rivers, it preserves Congress's option to pursue Wild and Scenic River designation in the future. Nothing in this Decision's commitment to protect these rivers, however, would block essential pipeline and other essential infrastructure crossings or make such crossings impracticable or non-economic.

Table 1
Rivers Eligible for Wild and Scenic River Status in the NPR-A Planning Area

River Name	Extents	Miles in the Planning Area	Outstandingly Remarkable Values
Awuna River	Headwaters to Colville	203	wildlife, scenic, cultural, geologic, subsistence, and recreational
Carbon Creek	Headwaters to Utukok	54	recreational, wildlife, scenic, cultural, and subsistence
Colville River	From headwaters (Storm Creek) downstream in all portions in which the river and both banks are in the NPR-A	174	wildlife, scenic, cultural, geologic, and subsistence
Driftwood Creek	Headwaters to Utukok	36	wildlife, scenic, cultural, geologic, and subsistence
Etivluk River	From confluence with Nigu to Colville	81	recreational, wildlife, scenic, and cultural

River Name	Extents	Miles in the Planning Area	Outstandingly Remarkable Values
Ignavik River	Headwaters to Colville	83	wildlife and scenic
Kiligwa River	Headwaters to Colville	51	wildlife, scenic, cultural, geologic, and subsistence
Kokolik River	Southern NPR-A boundary to northern boundary	73	recreational, wildlife, geologic, cultural, and subsistence
Kuna River	Headwaters to Colville	63	wildlife and scenic
Nigu River	From NPR-A southern boundary to confluence with Etivluk River	40	recreational, wildlife, scenic, and cultural
Nuka River	Headwaters to Colville	55	wildlife and scenic
Utukok River	Headwaters at confluence of Tupik and Kogruk creeks to NPR-A southern boundary approximately 198 miles	222	recreational, wildlife, scenic, subsistence, and cultural

Source: BLM 2012, Section 3.4.7

Finally, the plan adopts decisions regarding visual resource management and off-highway vehicle use designations. In brief, these measures are:

- Visual Resource Management: manage the approximately 9 million acres in which new infrastructure is prohibited or restricted as VRM II, approximately 1.1 million acres near certain rivers and waterbodies as VRM III (see Table 2-1 in the Final IAP/EIS for details), and the remaining approximately 12 million acres as VRM IV (Map 7).
- Off-highway vehicle (OHV) use: year-round use of OHVs to support subsistence activities is allowed, casual or non-subsistence travel is limited to vehicles with a gross vehicle weight rating of 2,000 pounds or less and to times when frost and snow cover is sufficient to protect the tundra, and inter-village travel is limited to times when frost and snow cover is sufficient to protect the tundra (see ROPs C-2 and L-1).

1.4 Stipulations and Required Operating Procedures

This Decision adopts the leasing stipulations and required operating procedures listed in **Appendix A. Map 2 in Appendix B** illustrates the geographic scope of some of these stipulations. These stipulations and required operating procedures are derived from those listed for the Preferred Alternative in the Final IAP/EIS. This Decision makes minor modifications and clarifications in the language of stipulations and required operating procedures listed in the Preferred Alternative in the Final IAP/EIS. These modifications and clarifications are described in **Appendix C**.

2. ALTERNATIVES

The Final IAP/EIS presented five alternatives that were analyzed in detail.

2.1 Alternative A: No Action Alternative

Alternative A would continue current management approved in the February 2013 NPR-A IAP ROD. Under Alternative A, approximately 52 percent (11.8 million acres) of the NPR-A's subsurface estate would be open to oil and gas leasing, including some lands closest to existing leases centered on the Greater Mooses Tooth and Bear Tooth units and Umiat. Lands near Teshekpuk Lake would continue to be unavailable for oil and gas leasing.

While providing these opportunities for oil and gas development, Alternative A would provide important protections for surface resources and other uses. Approximately 11 million acres would be closed to oil and gas leasing under Alternative A, comprising most lands in special areas and some Beaufort Sea waters in and near Dease Inlet and Utqiagvik. This would preclude oil and gas development in areas important for sensitive bird populations and for the roughly 315,000 caribou found in the Teshekpuk and Western Arctic Caribou Herds. New infrastructure would be prohibited on approximately 8.3 million acres.

Special areas under Alternative A are the Teshekpuk Lake Special Area, Colville River Special Area, Utukok River Uplands Special Area, Kasegaluk Lagoon Special Area, and Peard Bay Special Area. Alternative A would not recommend any rivers for addition to the National Wild and Scenic River System; however, the BLM would manage the existing 12 suitable rivers to protect their free flow, water quality, and outstandingly remarkable values.

2.2 Alternative B

Alternative B is similar to Alternative A, but it would increase the land set aside for conservation, while allowing access for operators to transport oil from State offshore leases to the Trans-Alaska Pipeline System. The area open to leasing would decrease compared with Alternative A to approximately 10.9 million acres (48 percent of the NPR-A's subsurface estate) to account for new resource-related data. The area closed to new infrastructure would increase to approximately 11.1 million acres to prevent additional development in Teshekpuk Caribou Herd habitat and molting goose habitat.

In the Teshekpuk Lake Special Area, there would be two north-south pipeline corridors provided to allow for linear rights-of-way to transport oil and gas from offshore leases through areas otherwise closed to new infrastructure. This alternative would make no decision regarding the exact location of such corridors, and potential corridors shown on maps in the Final NPR-A IAP/EIS are for representational purposes only. Specific corridor locations would be developed in subsequent NEPA analyses, pursuant to Stipulations K-6 and K-8, and ROP E-23, when a pipeline project is proposed. Alternative B would recommend the 12 suitable rivers for designation in the National Wild and Scenic River System.

2.3 Alternative C

Alternative C would increase the total number of acres open to leasing, compared with Alternative A, to approximately 17.3 million acres (76 percent of the NPR-A's subsurface estate). This would be accomplished by reducing the areas closed to leasing in the Teshekpuk Lake Special Area and in the Utukok River Uplands Special Area. The area closed to new infrastructure would decrease to approximately 4.9 million acres, primarily by reducing the areas closed in the Utukok River Uplands Special Area. Both the Teshekpuk Lake Special Area and the Utukok River Uplands Special Area would retain a core area that would be unavailable for leasing and closed to new infrastructure.

Caribou calving habitat and other important biological resources would be protected from oil and gas development through NSO stipulations and TLs. One north-south pipeline corridor east of Teshekpuk Lake would be provided in the Teshekpuk Lake Special Area to allow for linear rights-of-way to transport oil and gas from offshore leases through areas otherwise closed to new infrastructure. This alternative would make no decision regarding the exact location of such corridor, and a potential corridor shown on maps in the Final NPR-A IAP/EIS is for representational purposes only. The specific corridor location would be developed in subsequent NEPA analyses, pursuant to Stipulations K-6 and K-8, and ROP E-23, when a pipeline project is proposed.

The southern and eastern portions of the Utukok River Uplands Special Area would be available for new infrastructure. Alternative C would not recommend any rivers for addition to the National Wild and Scenic River System; however, the BLM would manage the existing 12 suitable rivers to protect their free flow, water quality, and outstandingly remarkable values.

2.4 Alternative D

Alternative D, together with Alternative E (same), would make the most land open to leasing (approximately 18.6 million acres, or 82 percent of the NPR-A's subsurface estate). The area closed to new infrastructure would decrease to approximately 4.4 million acres. The management of the Utukok River Uplands, Kasegaluk Lagoon, and Peard Bay Special Areas would be the same as that under Alternative C. All of the Teshekpuk Lake Special Area would be available for leasing, with impacts on caribou calving habitat and important bird habitat mitigated through NSO stipulations and TLs.

No pre-defined, dedicated pipeline corridors would be needed in the Teshekpuk Lake Special Area under Alternative D because more areas would be open to new infrastructure, including where pipelines may be needed to transport oil and gas from offshore leases. As with Alternative C, Alternative D would not recommend any rivers for addition to the National Wild and Scenic River System, and the BLM would manage the existing 12 suitable rivers to protect their free flow, water quality, and outstandingly remarkable values.

2.4 Alternative E (Preferred Alternative)

Alternative E, together with Alternative D (same), would make the most land open to leasing (approximately 18.6 million acres, or 82 percent of the NPR-A's subsurface estate), while providing important protections for surface resources. This alternative focuses to a greater extent on allowing for the possibility of development while managing its potential effects. The area closed to new infrastructure would decrease to approximately 4.3 million acres. The management of Kasegaluk Lagoon Special Area and Peard Bay Special Area would be the same as that under Alternatives C and D. The Teshekpuk Lake Special Area would be available for leasing, with potential impacts on caribou calving habitat and important bird habitat mitigated through NSO stipulations and TLs. The Utukok River Uplands Special Area would have a core area that is unavailable for leasing and new infrastructure, a corridor where leasing and infrastructure is allowed subject to a TL, and a caribou migration corridor along the southern boundary that is available for leasing subject to NSO stipulations and allows essential road and pipeline crossings.

As with Alternative D, no pre-defined, dedicated pipeline corridors would be needed in the Teshekpuk Lake Special Area under Alternative E because more areas would be open to new infrastructure, including where pipelines may be needed to transport oil and gas from offshore leases. As with Alternatives C and D, Alternative E would not recommend any rivers for addition to the National Wild and Scenic River System, and the BLM would manage the existing 12 suitable rivers to protect their free flow, water quality, and outstandingly remarkable values.

2.5 Environmentally Preferred Alternative

Alternative B is the environmentally preferred alternative. This is primarily because Alternative B would make the least amount of lands available for oil and gas leasing (and subsequently for potential exploration and development) and the most area closed to new infrastructure and to additional development in Teshekpuk Caribou Herd habitat and molting goose habitat. The restricted areas available for leasing and infrastructure would reduce the alternative's potential for impacts from oil and gas exploration and development in NPR-A.

Though many stipulations and best management practices are common among the alternatives, where there are differences (e.g., wider river setbacks), Alternative B generally has the most protective measures.

In addition, Alternative B recommends Congressional designation of twelve suitable rivers or for addition to the National Wild and Scenic Rivers System. Consequently, Wild and Scenic designation under Alternative B would provide permanent protection to them and part of their riparian areas.

3. MANAGEMENT CONSIDERATIONS

The plan adopted in this ROD balances BLM's legislatively mandated goals of providing for the exploration and development of oil and gas in NPR-A while protecting surface values, taking into consideration public and agency comments and Native consultation. It makes approximately 82 percent of the lands within NPR-A available for oil and gas leasing and ensures that infrastructure applications, including those for community infrastructure, are allowed within the Reserve. At the same time, it provides protections for important surface resources and uses, particularly subsistence use. The ROD adopts this decision after BLM gave careful consideration to the oil and gas potential of the Reserve and neighboring offshore areas and to the environmental values of NPR-A. The impact analysis undertaken for the NPR-A plan and presented in the Final NPR-A IAP/EIS (with an October 6, 2020 errata) is suitably specific for broad-scale management decisions made in this ROD. Additional site-specific analysis will occur when BLM receives an application to approve an action on the ground. This will be done through subsequent NEPA reviews and analysis, which will be conducted before BLM issues permits or approvals for any ground disturbing activity.

It is the BLM's intent that the Final NPR-A IAP/EIS and this ROD will provide NEPA compliance for multiple lease sales. Prior to the second and any subsequent sales, the BLM will evaluate the IAP/EIS to determine whether it remains adequate or requires supplementation based on new circumstances or information, or substantial changes to the leasing program (see 40 CFR 1502.9(d)(1)² and 43 CFR 46.120(c)).

3.1 BLM's Legal Authorities and Responsibilities

Under the Naval Petroleum Reserves Production Act (NPRPA), the Secretary of the Interior is required to conduct oil and gas leasing and development in the NPR-A (42 USC 6506a). The Department of the Interior and Related Agencies' Fiscal Year (FY) 1981 Appropriations Act specifically directs the Secretary to undertake "an expeditious program of competitive leasing of oil and gas" in the Petroleum Reserve. The decision in this ROD makes approximately 82% of the Reserve available for oil and gas leasing, including lands near existing lease tracts and discoveries in the eastern part of the Reserve. By making these lands and their projected oil and gas available for leasing, the decision adopted in this ROD fulfills BLM's responsibility under the NPRPA to manage NPR-A to conduct oil and gas leasing and development.

Two federal laws mandate protection for surface values in the NPR-A. Under the Federal Land Policy and Management Act (FLPMA), the Secretary has broad authority to regulate the use, occupancy, and development of public lands and to take whatever action is required to prevent unnecessary or undue degradation of the public lands (43 USC 1732). The NPRPA provides that the Secretary "shall assume all responsibilities" for "any activities related to the protection of environmental, fish and wildlife, and historical or scenic values" (42 USC 6503(b)) and authorizes the Secretary to "promulgate such rules and regulations as he deems necessary and appropriate for the protection of such values within the reserve." (The NPRPA's implementing regulations are found at 43 CFR Part 2360.) In addition, the NPRPA, as amended, authorizes the Secretary to designate lands "containing any significant subsistence, recreational, fish and wildlife, or historical or scenic value" and requires that in these lands activities "shall be conducted in a manner which

² Reference is to current CEQ NEPA regulations.

will assure the maximum protection of such surface values to the extent consistent with the requirements of this Act” for exploration and production activities (P.L. 96-514, 42 USC 6504(a)).

The decision adopted in this ROD achieves these goals in a number of ways. While allowing for a robust oil and gas program in NPR-A, the Decision provides protections for significant surface values through no surface occupancy stipulations, timing limitations and controlled surface use stipulations to ensure that development is conducted in a way that minimizes impacts to significant surface values. Certain areas are made unavailable for leasing and encompass critical wildlife habitat and other important surface values in the Special Areas and adjacent coastal water, thus maintaining these lands largely undisturbed. In some of the lands in which leasing would not be allowed, the plan prohibits nearly all new permanent infrastructure. For those lands on which leasing and development can occur, the plan provides many stipulations and required operating procedures to minimize impacts (see Appendix A).

The NPRPA, as amended, guided the process and constrains the decision scope of this plan. The Department of the Interior and Related Agencies’ Fiscal Year (FY) 1981 Appropriations Act exempted the Petroleum Reserve from section 202 of FLPMA (43 USC 1712), which requires the preparation of land use plans (called resource management plans, in regulations—43 CFR Part 1600—adopted by the BLM). Because of the exemption from FLPMA section 202, the plan was not developed as a resource management plan. While the IAP analyzed a range of possible future BLM management practices for the NPR-A in a manner similar to that done in a resource management plan, it was developed consistent with NEPA regulations—40 CFR Parts 1500-1508—rather than FLPMA regulations.

Consistent with the NPRPA, the NPR-A IAP addresses a narrower range of management than a resource management plan. The NPRPA, as amended, and its implementing regulations, require oil and gas leasing in the NPR-A and the protection of surface values to the extent consistent with exploration and development of oil and gas. Consistent with this purpose, the NPRPA also withdraws the NPR-A from all other forms of entry and disposition under the public land laws, including the mining laws. Therefore, this ROD makes no decision on opening lands to hard rock or coal mining. The 1981 Appropriations Act also exempted the NPR-A from FLPMA section 603 (43 USC 1782), which requires the completion of wilderness reviews and describes the procedures for managing any lands recommended to Congress for wilderness designation, pending Congressional action. Section 1320 of the Alaska National Interest Lands Conservation Act (ANILCA; 43 USC 1784), however, grants the Secretary discretionary authority to “identify areas in Alaska which he determines are suitable as wilderness” and states that the Secretary “may, from time to time, make recommendations to the Congress for inclusion of any such areas in the National Wilderness Preservation System.” While section 603 of FLPMA requires that, pending congressional action, the BLM shall manage lands recommended for designation “so as not to impair the suitability of such areas for preservation as wilderness,” section 1320 of ANILCA states that “in the absence of congressional action,” the BLM shall manage the lands recommended for wilderness designation “in accordance with the applicable land use plans and applicable provisions of law.”

3.2 Key Considerations to the Decision

The plan adopted in this ROD is the result of careful consideration of the resource values of the NPR-A and the current state of oil and gas development in the Reserve and neighboring offshore and onshore areas. In fulfilling its responsibilities in the NPR-A, the BLM was influenced by several overarching factors, some of which led to the preparation of an area-specific Secretary's Order, number 3352 (described at the end of this section).

New Information on Potential for Oil and Gas Development

In 2017, the U.S. Geological Survey (USGS) published an updated estimate of recoverable oil and gas reserves in the NPR-A. This new assessment was spurred by recent discoveries announced near Smith Bay (an offshore prospect located approximately 1 mile from the NPR-A), the Willow prospect in the Bear Tooth Unit of the NPR-A, the Horseshoe prospect on State lands east of the NPR-A, and new interpretations informed by discoveries in the Nanushuk and Torok formations. This new information led the USGS to estimate there may be 8.7 billion barrels of recoverable oil and 25 trillion cubic feet of recoverable gas, about 8 times as much as was projected in the 2012 IAP/EIS. In addition to the new information about recoverable reserves, there are currently two proposed natural gas pipelines that could transport natural gas from the North Slope to market, which increases the likelihood of gas developments in the NPR-A.

Potential Offshore Oil and Gas Development

Another key consideration in this Decision was ensuring that BLM's management of the NPR-A did not impede offshore development of State or federal leases. This Decision ensures that pipelines and other infrastructure that must necessarily be onshore to support offshore development is permissible under this plan. In particular, pipelines from offshore development of State of Alaska submerged leases in Harrison and Smith Bay could come onshore in any part of the Teshekpuk Lake Special Area and could cross any part of the special area with the exception of the lake itself. This provides future decision-makers with the flexibility to determine the best method and route for transporting offshore oil to the Trans-Alaska Pipeline System (TAPS).

Native Self Determination

Consultation with Alaska Native entities and consideration of Native self-determination informed this decision in many ways. A new IAP was developed in part due to a request from the North Slope Borough for the BLM to reconsider management of the NPR-A. The North Slope Borough receives a large portion of its funding through property taxes on oil and gas related infrastructure, and this money provides services and support for its residents, a large majority of whom are Alaska Native. The North Slope Borough advocated strongly for opening additional lands for leasing and development in the NPR-A, particularly in the highly prospective areas around Teshekpuk Lake. This Decision makes all of the Teshekpuk Lake Special Area available for leasing. This Decision also ensures that property owned by the North Slope Borough in the Utukok River Uplands Special Area can be accessed and developed should the Borough decide to do so. An infrastructure corridor was established to provide this access while maintaining a core area of the Utukok River Uplands Special Area as unavailable for new infrastructure to protect the Western Arctic Caribou Herd calving habitat.

In addition to the North Slope Borough, the BLM also consulted extensively with Alaska Native corporations, city governments, and tribal councils. At the request of the Wainwright Steering Committee, the BLM changed the management of Wainwright Inlet in this Decision to make it available for leasing, subject to a no surface occupancy stipulation, and to allow for consideration of non-oil and gas infrastructure in Wainwright Inlet. This Decision also changes the management of split estate in the NPR-A (areas where a Native corporation or Native allotment owner owns the surface and the federal government manages the subsurface) to allow surface owners to decide whether to permit oil and gas surface development on or within one mile of their private property (see lease stipulations K-12 and K-14). The subsurface may now be offered for lease subject to a no surface occupancy stipulation, but will allow the surface owner to waive that stipulation at their discretion. This will allow Native land owners to benefit economically from development in the NPR-A.

North Slope Communities' Infrastructure Needs

This Decision allows community infrastructure to be considered anywhere in the NPR-A. Community infrastructure is defined as an infrastructure project that responds to community needs, such as roads, power lines, fuel pipelines, and communications systems, and is owned and maintained by or on behalf of the North Slope Borough (NSB), city government, the State of Alaska, a tribe, or an ANCSA corporation. This provision applies across the NPR-A unless otherwise noted in specific areas. It is difficult to predict what infrastructure needs North Slope communities may have in the next 20+ years as their demographics shift and they respond to a changing climate, and this decision ensures the BLM will have the flexibility to be responsive to local needs.

Protection of Important Surface Resources and Uses

This decision adopts many performance-based required operating procedures (ROPs) and lease stipulations to protect important surface resources. In particularly sensitive areas such as Peard Bay, Kasegaluk Lagoon and a core area of the Utukok River Uplands Special Area, leasing and new infrastructure is prohibited or strongly curtailed. In other areas, geographically specific ROPs and stipulations apply to permittees to protect important surface resources. A ten-year leasing deferral is established in this Decision for two caribou migration corridors near Teshekpuk Lake that are important for the Teshekpuk Caribou Herd.

Secretary's Order 3352

In accordance with Secretary's Order 3352, the BLM reviewed and developed the revised IAP adopted by this ROD in consideration of the twin purposes of promotion of oil and gas development while balancing the protection of surface resources. This Decision increases the area available for leasing and new infrastructure by approximately 4 million acres compared to previous management, and makes an additional 2 million acres in the Reserve available for leasing subject to no surface occupancy stipulations. The majority of this land is in the Teshekpuk Lake Special Area, one of the most highly prospective areas of the Reserve. Important surface resources in the Teshekpuk Lake Special Area are protected with the lease stipulations outlined in K-1, K-4, K-6, K-7, K-8, and K-9, as well as a host of ROPs that apply throughout the Reserve.

3.3 Mitigation Measures

This Decision includes restrictions on leasing and new infrastructure, stipulations and ROPs, designation of Special Areas and adjustments to their boundaries, and adoption of unique protection measures therein, and other measures to minimize impacts from permitted activities. Additional site-specific measures to mitigate impacts may be required during the permitting process for future projects. Those measures may respond to specific potential impacts of the proposal and may include mitigations consistent with 40 CFR 1508.1(s)³. The decision in this ROD includes numerous practicable means to avoid or minimize environmental harm consistent with the purpose and need of the action, including all types of potential impacts.

As described in the ROPs and lease stipulations, this Decision requires certain baseline studies, oversight monitoring, and effectiveness monitoring for permitted activities.

Baseline studies: Studies or surveys prior to activities to better mitigate impacts associated with the activities.

Project proponents may be responsible for conducting or funding baseline studies, including fish, wildlife and vegetation surveys or other data collection/compilation where applicable, to provide BLM

³ Reference is to current CEQ NEPA regulations.

decision-makers with sufficient information to make informed decisions on a project or series of projects. The type and scale of such studies or data collection/compilation will be determined by the BLM, based on the characteristics of the proposed project and location. The BLM will work with project proponents to coordinate any necessary surveys to ensure that consistent methods are used and that surveys are not duplicative of existing federal and state data or other publicly available data. **Some such studies, data collection/compilation and surveys are described in Stipulations K-6, K-7, K-8, K-10, K-11, and ROPs A-7, B-2, C-1, C-2, E-3, E-5, E-7, E-9, and E-13.**

Oversight monitoring: Monitoring to ensure compliance with applicable requirements.

The BLM will conduct oversight monitoring to ensure that project proponents' plans for activities and implementation of those plans conform to the relevant requirements. Commonly oversight monitoring will require such elements as review of planning documents; field visits prior to activities to ensure compliance with requirements at the on-the-ground preparation stage for construction, operational start-ups, and abandonment activities; presence in the field during activities to ensure compliance; and follow-up field visits to ensure that any required clean-up and abandonment activities are in compliance with requirements.

Effectiveness monitoring: Monitoring to evaluate the effectiveness of project designs and mitigation measures.

Certain ROPS and Lease Stipulations require project proponents to assess the effectiveness of required mitigations in protecting resources. ROP M-1 is a specific example of an effectiveness monitoring requirement, requiring project proponents, as part of a vehicle use plan, to collect and monitor data on vehicle counts and vehicle interactions with wildlife; the BLM Authorized Officer may require adjustments to the plan based on the results of the monitoring.

Studies and monitoring undertaken to provide baseline data or to monitor effectiveness of mitigation measures, unless otherwise indicated in the ROP or lease stipulation, must meet the approval of the BLM Authorized Officer. When applicable, the data collection process and product shall be consistent with standards established by the BLM's Assessment, Inventory, and Monitoring program.

3.4 Endangered Species Act Consultation

Section 7(a)(2) of the Endangered Species Act (ESA) requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration-Fisheries (NOAA Fisheries), as appropriate, to ensure that their actions do not jeopardize the continued existence of species listed as threatened or endangered under ESA, or destroy or adversely modify their critical habitat.

For this plan, the BLM consulted with the USFWS on four species and their associated units of designated critical habitat that are protected under the provisions set forth in the ESA. All four species are listed as Threatened: spectacled eiders (*Somateria fisheri*), Steller's eider (*Polysticta stelleri*), polar bears (*Ursus maritimus*), and Northern sea otters (*Enhydra lutris kenyoni*), Southwest Alaska Distinct Population Segment (DPS).

The BLM consulted with NOAA-Fisheries on the bowhead whale (*Balaena mysticetus*), blue whale (*Balaenoptera musculus*), fin whale (*Balaenoptera physalus*), humpback whale (*Megaptera novaeangliae*), North Pacific right whale (*Eubalaena japonica*) and its critical habitat, sperm whale (*Physeter macrocephalus*), bearded seal (*Erignathus barbatus*) Beringia Distinct Population Segment (DPS), Arctic subspecies of ringed seal (*Phoca hispida hispida*), Steller sea lion (*Eumetopias jubatus*) Western DPS and its critical habitat.

The USFWS completed its Biological Opinion on November 17, 2020 and NOAA-Fisheries completed its Biological Opinion on December 15, 2020. In their Biological Opinion, the USFWS identified several

project design criteria that lessees and permittees must adhere to when conducting permitted activities in the NPR-A. NOAA-Fisheries also identified additional mitigation measures to protect listed species in their Biological Opinion. Both Biological Opinions are available for review at <https://www.blm.gov/planning-and-nepa/plans-in-development/alaska/npr-a-iap-eis>. The BLM will ensure their lessees, permittees, and agents of their lessees and permittees adhere to all lease stipulations, required operating procedures, project design criteria and additional mitigation measures.

3.5 National Historic Preservation Act

In accordance with Section 106 of the National Historic Preservation Act, the BLM requested to consult with the Alaska State Historic Preservation Officer to determine how proposed activities could affect cultural resources listed on or eligible for listing on the National Register of Historic Places. The SHPO declined to formally consult with the BLM on the NPR-A IAP/EIS but offered to provide technical review or assistance. The SHPO acknowledged that the NPR-A IAP/EIS, as a land use plan, is an administrative action without the potential to affect historic properties since it does not authorize ground disturbing activities. The BLM will comply with Section 106 of the NHPA, including, as applicable, consultations with the SHPO, when individual projects are implemented in the future.

The BLM consulted with federally recognized tribal governments during preparation of this IAP/EIS and identified seven Alaska Native tribes that could be substantially affected by this decision. The BLM consulted with these tribes and other Alaska Native entities to identify any culturally significant or historic traditional resources in the project area and to understand how the proposed action had the potential to affect these types of resources.

3.6 ANILCA Section 810 Subsistence Evaluation

Section 810(a) of the Alaska National Interest Lands Conservation Act (ANILCA) requires that a subsistence evaluation be completed on the final plan for the NPR-A. ANILCA also requires that this evaluation include findings on three specific issues:

- 1) The effect of such use, occupancy, or disposition on subsistence uses and needs;
- 2) The availability of other lands for the purpose sought to be achieved; and
- 3) Other alternatives that reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes (16 U.S.C. 3120).

The following discussion summarizes the ANILCA §810 evaluation for this Decision. The summary is based on the detailed ANILCA §810 analysis in Appendix E of the Final IAP/EIS for the Preferred Alternative (Alternative E). The analysis and conclusions presented in the detailed ANILCA §810 evaluation in the Final IAP/EIS also apply to the decision in this ROD, because the Decision is substantially the same as the Preferred Alternative in the Final IAP/EIS and the overall effect of the changes has been to reduce the potential impacts on subsistence resources. As a result, the impacts of this Decision on subsistence resources will be no more than, and likely less than, those analyzed for the Preferred Alternative in the Final IAP/EIS.

- 1) *Without the Cumulative Case:* The effects of the plan adopted in this ROD exceed the “may significantly restrict” threshold, and thus a positive ANILCA §810 determination was made for the communities of Anaktuvuk Pass, Atkasuk, Nuiqsut, Utqiagvik and Wainwright.
- 2) *With the Cumulative Case:* The cumulative case is presented in Appendix E of the Final IAP/EIS and includes, but is not limited to, offshore oil and gas development in both Federal and State waters, the proposed Willow and Nanushuk developments, additional oil and gas development east of the NPR-A on State lands, two gas pipelines running south from the North Slope, and potential

oil spills and gas releases. The effects of the cumulative case exceed the “may significantly restrict” threshold, and thus a positive ANILCA §810 determination was made for the communities of Anaktuvuk Pass, Atkasuk, Nuiqsut, Point Lay, Utqiagvik and Wainwright.

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 §810(a)(1) and (2), and makes the three determinations required by §810(a)(3)(A), (B), and (C). The BLM has found in the subsistence evaluation that all the alternatives considered in the IAP/EIS (including the No Action Alternative), when considered together with all the past, present, and reasonably foreseeable future cumulative effects discussed in the IAP/EIS, may significantly restrict subsistence uses. Therefore, the BLM undertook the notice and hearing procedures required by ANILCA §810(a)(1) and (2), as described above, and now must make the three determinations required by §810(a)(3)(A), (B), and (C). 16 U.S.C. 3120(a)(3)(A), (B), and (C).

The BLM has determined that the plan adopted in this ROD meets the following requirements (16 U.S.C. 3120(a)(3)(A), (B), and (C)) for federal actions that may result in a significant restriction on subsistence uses:

- 1) *The significant restriction of subsistence uses is necessary, and consistent with sound management principles for the utilization of the public lands.*

The BLM prepared the Final IAP/EIS in accordance with its responsibility to manage the NPR-A under the authority of two laws passed in 1976, the NPRPA and the FLPMA. The NPRPA authorizes and directs the Secretary of the Interior to undertake an “expeditious program of competitive leasing of oil and gas in the National Petroleum Reserve-Alaska” (42 U.S.C. 6508(a)). At the same time, the statute also requires that all oil and gas activities “undertaken pursuant to this section shall include or provide for such conditions, restrictions, and prohibitions as the Secretary deems necessary or appropriate to mitigate reasonably foreseeable and significantly adverse effects on the surface resources” of the NPR-A and that maximum protection be provided for significant surface values, including environmental, fish and wildlife, historical, scenic, and subsistence values consistent with the purposes of the act (42 U.S.C. 6504 and 6508).

It was in furtherance of these objectives, together with other management guidance found in the NPRPA, FLPMA, NEPA, and ANILCA, that the IAP/EIS was undertaken. After considering a broad range of alternatives, the decision described in this ROD was developed to make available lands for environmentally responsible oil and gas exploration and development, through further lease sales in the NPR-A, while minimizing impacts to important subsistence resources and subsistence-use areas. The resulting decision considers the necessity for economically feasible development while providing effective protections to minimize any impacts on subsistence resources and uses. Under this decision, performance-based lease stipulations and ROPs serve as the primary mitigations to be used to reduce the impact of the proposed activity on subsistence resources.

The BLM has considered and balanced a variety of factors with regard to the proposed activity on public lands, including the comments received during public meetings and hearings which stressed the importance of protecting important caribou habitats for both the Teshekpuk Caribou Herd and the Western Arctic Caribou Herd. The plan adopted in this ROD may significantly restrict subsistence uses for five communities; however, the BLM has determined that the significant restriction that may occur under Alternative E, when considered together with all the possible impacts of the cumulative case, is necessary, consistent with sound management principles for the use of these public lands, and for BLM to fulfill the management goals for the Reserve as

guided by the statutory directives in the NPRPA, FLPMA, and other applicable laws.

- 2) *The proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition.*

The BLM has determined that this Decision involves the minimal amount of public lands necessary to accomplish the purposes for which the IAP/EIS was undertaken. Given the management and policy objectives previously described and the statutory directives of the NPRPA and FLPMA, the agency considered a number of factors in identifying whether to make additional lands unavailable for leasing, and if so, which lands. In particular, the agency considered the location of areas with high potential for oil and gas resources, the location and amount of land necessary for an economically feasible leasing program, the importance of surface resources and uses, and measures to reduce the possibility of a significant restriction on subsistence uses. The alternative selected makes the most land available for leasing and balances the interest in making sufficient highly prospective lands available to achieve an economically feasible leasing program with mitigation measures to reduce impacts to important subsistence species and uses.

Specifically, this Decision makes unavailable for leasing a large tract of land used by the Western Arctic Caribou Herd for calving, and requires permittees to adhere to additional ROPs and lease stipulations in the area used by the Teshekpuk Caribou Herd for calving. The decision in this ROD also makes unavailable for leasing coastal lands and waters in the Peard Bay and Kasegaluk Lagoon Special Areas that contain important subsistence resources and wildlife habitat, provides enlarged infrastructure setbacks from rivers important for subsistence use, and provides other protections for subsistence users and subsistence resources and their habitats.

The BLM has exercised its land and oil and gas management expertise to balance the prospect of development in areas available for leasing with the environmental values in those areas. It has done so in the many ways described in this Decision, such as requiring minimum footprints for developments, incorporating the expected use of extended reach drilling in key areas where development must coexist with abundant surface values and resources, and many other measures, all while maximizing the potential to reach known and expected oil and gas reserves. In so doing, the BLM has determined that the decision makes available for leasing the minimum amount of public lands necessary to achieve a successful leasing program while providing necessary protection for subsistence users and resources.

- 3) *Reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.*

During scoping for the IAP/EIS, the BLM identified subsistence use as one of the major issues to be addressed. Information on access, harvests, and traditional use patterns was gathered during the NEPA process through meetings in villages on the North Slope, meetings with the NPR-A Working Group, and consultation with tribal and local governments. The plan adopted in this ROD, including detailed lease stipulations and required operating procedures, contains significant restrictions and requirements for lessees/permittees, including setbacks and prohibitions to minimize impacts to important subsistence users and resources.

Consultation and coordination with North Slope communities and Native village representatives will continue to provide a valuable avenue for the exchange of information and oversight. The key components of mitigation in the plan are making lands important for the Teshekpuk Caribou Herd and the Western Arctic Herd either unavailable for oil and gas leasing or subject to additional protections such as

no surface occupancy stipulations and operational timing limitations, and making important coastal lands and waters unavailable for leasing.

Additional protections include, but are not limited to:

- Required Operating Procedure (ROP) E-1 will require permittees to allow subsistence users access to gravel and ice roads, subject to reasonable safety measures, and will require construction of access ramps to facilitate overland travel.
- ROPs H-1 and H-2 require additional consultation with potentially impacted communities to implement project specific mitigation measures to reduce impacts to subsistence users.
- Stipulation K-1 includes setbacks from rivers, including setbacks of at least a mile along rivers identified as important for subsistence use.
- Stipulations K-8, K-9 and K-11 provide protections for caribou through the use of timing limitations, no surface occupancy and traffic restrictions.
- Stipulation K-13 establishes two areas that will be deferred from leasing for 10 years in important caribou migration corridors.

Based on these mitigation measures and the other prohibitions, restrictions, requirements and limitations to surface resources in the performance-based lease stipulations and best management practices, the BLM has determined that the decision presented in this ROD includes reasonable steps to minimize adverse impacts on subsistence uses and resources.

3.7 Environmental Justice

Executive Order 12898 requires that an agency identify and address “as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” The IAP/EIS identified direct and indirect impacts that may affect the Iñupiat residents of the North Slope Borough. These residents qualify as a minority population and could potentially be disproportionately impacted by this Decision.

Since the Iñupiat are the principal full-time residents of the areas covered by this decision, it is not possible to both implement a successful oil and gas leasing program while entirely avoiding impacts to this population. Therefore, this Decision mitigates impacts to this population. It accomplishes this primarily through geographically specific lease stipulations and ROPs in the lands used by subsistence hunters of Atqasuk, Nuiqsut, and Utqiagvik; deferring leasing in two important caribou movement corridors; providing Native self-determination in areas with split estate; and by monitoring lessees’/ permittees’ activities to ensure compliance with requirements.

3.8 Floodplain Management and Protection of Wetlands

The following findings are based on a comprehensive impact analysis done in compliance with Executive Orders 11988 and 11990 in the Final IAP/EIS (see section 3.3.2).

Executive Order 11988—Floodplain Management

Executive Order 11988 concerning the protection of floodplains requires an agency to provide leadership and to take action to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities. Pursuant to the order, the agency has a responsibility to:

- 1) Evaluate the potential effects of any actions that may take place in a floodplain

- 2) Ensure that its planning programs and budget requests reflect consideration of flood hazards and floodplain management; and
- 3) Prescribe procedures to implement the policies and requirements of Executive Order 11988.

Additional requirements are as follows:

- 1) Before taking an action, each agency shall determine whether the proposed action will occur in a floodplain and the evaluation required will be included in any statement prepared under Section 102(2)(C) of the NEPA (42 U.S.C. 4332(2)(C)).
- 2) If an agency has determined to, or proposes to, conduct, support, or allow an action to be located in a floodplain, the agency shall consider alternatives to avoid adverse effects and incompatible development in the floodplains. If the head of the agency finds that the only practicable alternative consistent with the law and with the policy presented in this Order requires siting in a floodplain, the agency shall, prior to taking action,
 - a) design or modify its action in order to minimize potential harm to or within the floodplain, consistent with regulations, and
 - b) prepare documentation explaining why the action is proposed to be located in the floodplain.

The following discussion summarizes the evaluation and findings of impacts to floodplains as presented in the Final IAP/EIS for the Preferred Alternative and applicable to this Decision. It also identifies protective mitigations developed to avoid or lessen impacts to floodplains. More than 95 percent of the NPR-A may be classified as wetlands, which includes associated floodplains. Total avoidance of floodplains is impossible because of the extremely large proportion of the area that can be classified as wetlands and because floodplains are a large part of the flat, low-lying wetlands in the Arctic Coastal Plain, which dominates much of the planning area that contains any reasonable potential, according to the USGS, for oil or gas development. Consequently, it is likely that oil and gas infrastructure will need to be located within floodplains. The long-term effects of oil and gas exploration and development activities, both direct and cumulative in nature, on these floodplains are expected to be insignificant (negligible to minimal) in the context of the large floodplain area in the NPR-A. The combined effect of exploration and development will be unlikely to significantly impact any plant species or community, cause significant soil loss, or result in other than short-term and localized loss of water resources or water quality (see e.g., NPR-A Final IAP/EIS Section 3.3.2, Wetlands and Floodplains). Therefore, no significant impacts are expected that will affect public health, safety, and welfare through changes in the supply, quality, recharge or discharge and pollution of water, or, flood and storm hazards or sedimentation and erosion. No impacts will occur that will result in long-term changes in the natural ecosystem.

The impacts that could occur to floodplains will be mitigated to the greatest extent practicable primarily through:

- making lands near Kasegaluk Lagoon and Peard Bay and a large portion of the Utukok River Uplands Special Area unavailable for oil and gas leasing and infrastructure,
- the stipulations and required operating procedures incorporated into this ROD. The stipulations and required operating procedures offer a variety of protections that protect floodplains (see Appendix A), including setbacks from streams for short-term activities as well as permanent facilities.

In addition to the practicable mitigation included in the plan adopted by this Decision, the BLM (and, in some cases, other federal agencies) will consider alternatives to avoid adverse effects and incompatible development

in the floodplains before any ground activities are approved. This will be done through subsequent NEPA reviews and analysis, which will be conducted before any construction or operation permits or approvals are issued. Compliance with the Executive Order 11988 will be undertaken at these subsequent stages through consideration of all practicable alternatives and additional mitigation in order to ensure that all possible protection is provided for the floodplains' functions and values.

Executive Order 11990—Protection of Wetlands

Executive Order 11990 concerning the protection of wetlands requires that the BLM consider factors relevant to the proposal's effect on the survival and quality of the wetlands. Factors to be considered include the following:

- 1) Public health, safety, and welfare; including water supply, quality, recharge and discharge, pollution; flood and storm hazards; and sediment and erosion;
- 2) Maintenance of natural systems; including conservation and long-term productivity of existing flora and fauna, species and habitat diversity and stability, hydrologic utility, fish, wildlife, timber, and food and fiber resources; and,
- 3) Other uses of wetlands in the public interest, including recreation, scientific, and cultural uses.

In furtherance of the NEPA (42 U.S.C. 4331(b)(3)) to improve and coordinate federal plans, functions, programs, and resources so that the nation may attain the widest range of beneficial uses of the environment without degradation and risk to health or safety, the agency, to the extent permitted by law, shall avoid undertaking or providing assistance for new construction located in wetland unless the head of the agency finds:

- 1) There is no practicable alternative to such construction, and
- 2) The proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

In making this finding the head of the agency may take into account economic, environmental and other pertinent factors. The following discussion summarizes the evaluation of impacts and findings to wetlands as presented in the Final IAP/EIS in the Preferred Alternative and applicable to the decision presented in this ROD. It also identifies protective mitigations developed to avoid or lessen impacts to wetlands.

More than 95 percent of the NPR-A may be classified as wetlands. Total avoidance of wetlands is impossible because of the extremely large proportion of the area that can be classified as wetlands. Consequently, it is likely that oil and gas infrastructure will need to be located within wetlands. The long-term effects of oil and gas exploration and development activities, including direct, indirect, and cumulative effects, on the wetlands of the planning area are expected to be insignificant (negligible to minimal) in the context of the wetlands of the NPR-A. The combined effect of exploration and development will be unlikely to significantly impact any plant species or community, cause significant soil loss, or result in other than short-term and localized loss of water resources or water quality (See e.g. NPR-A Final IAP/EIS Section 3.3.2, Wetlands and Floodplains). Therefore, no significant impacts are expected that will affect public health, safety, and welfare through changes in the supply, quality, recharge or discharge and pollution of water, flood and storm hazards or sedimentation and erosion. No impacts will occur that will result in long-term changes in the natural ecosystem.

The impacts that could occur to wetlands will be mitigated to the greatest extent practicable primarily through:

- making lands near Kasegaluk Lagoon and Peard Bay and a large portion of the Utukok River Uplands Special Area unavailable for oil and gas leasing and infrastructure,
- the stipulations and ROPs incorporated into this ROD. The stipulations and ROPs offer a variety of protections that protect floodplains (see Appendix A). Given that nearly all of the NPR-A is in wetlands, nearly all of the stipulations and ROPs provide some protection for wetland resources.

In addition to the practicable mitigation included in the plan, the BLM (and, in some cases, other federal agencies) will consider alternatives to avoid adverse effects and incompatible development in the wetlands before any ground activities are approved. This will be done through subsequent NEPA reviews and analysis, which will be conducted before any construction or operation permits or approvals are issued. Compliance with the Executive Order 11990 will be undertaken at these subsequent stages through consideration of all practicable alternatives and additional mitigation in order to ensure that all possible protection is provided for the wetlands functions and values.

3.9 Wild and Scenic Rivers

The Final IAP/EIS in section 3.4.7 describes the process by which BLM considered Wild and Scenic River eligibility and suitability. The plan considered twelve rivers or river segments previously found to be eligible and suitable for designation, but this ROD does not revisit those findings or make recommendations for Congressional designation in the National Wild and Scenic River System, instead protecting them through other means. The eligible rivers and river segments are entirely within BLM's management. The plan adopted in this ROD provides protection to these rivers and river segments and their wild and scenic river values. Under the plan, the BLM will manage all twelve rivers or river segments to protect their free flow, water quality, and outstandingly remarkable values. In addition to this commitment, the plan includes decisions that protect the rivers and river segments and lands surrounding them. All but three of the twelve rivers or river segments in NPR-A are within the area in the southwestern part of the Reserve in which minimal leasing will be allowed and in which nearly all new infrastructure will be prohibited. The portions of three rivers that are in lands that would be available for lease and in which new infrastructure could be permitted have setbacks (one mile for the Utukok and Kokolik rivers and a half mile for the Awuna River) under stipulation K-1 that would limit the infrastructure that could be in these setbacks.

4. PUBLIC INVOLVEMENT

The BLM considered public comments throughout the NPR-A IAP/EIS planning process. The following list highlights major steps in the public involvement process. For more information on public involvement, see Appendix C of the Final IAP/EIS.

- Scoping: Scoping occurred from November 21, 2018 to February 15, 2019. The BLM held eight public meetings in Alaska and received approximately 56,000 comment submissions, including form letters.
- Public Review of the Draft IAP/EIS: The comment period for the Draft IAP/EIS occurred from November 25, 2019 through February 5, 2020. The BLM held eight public meetings in Alaska and received more than 82,000 comments, including form letters and signed petitions.
- Comments received after the Final IAP/EIS was released and prior to the ROD: In reaching the decision in this ROD, the BLM reviewed and fully considered comments received after distribution of the Final IAP/EIS on June 26, 2020. The comments did not identify any significant new circumstances or information related to environmental concerns bearing upon the proposed action or

its impacts. Instead, they generally reflect concerns already raised by comments submitted during scoping and the public's review of the Draft IAP/EIS.

In addition to the above, the plan benefited from suggestions and careful review of the analysis in the IAP/EIS by several cooperating agencies - the Bureau of Ocean Energy Management, Iñupiat Community of the Arctic Slope, National Park Service, North Slope Borough, State of Alaska, and U.S. Fish and Wildlife Service.

Consultation occurred during the IAP/EIS process with:

- Tribes as required by a Presidential Executive Memorandum dated April 29, 1994;
- Communities, tribal organizations, and Native corporations on the North Slope;
- The U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration —Fisheries pursuant to the Endangered Species Act; and
- Alaska's State Historic Preservation Office pursuant to the National Historic Preservation Act.

Pursuant to ANILCA §810(a)(1) and (2), the BLM also conducted hearings in North Slope communities to gather comments regarding potential impacts to subsistence use resulting from the alternatives considered in the IAP/EIS.

Appendix A

Lease Stipulations,
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Appendix A. Lease Stipulations, Required Operating Procedures, and Lease Notices

A.1 DEFINITIONS

The following definitions apply to the stipulations and required operating procedures listed in this appendix. The Glossary of the Final Integrated Activity Plan (IAP)/Environmental Impact Statement (EIS) has additional definitions.

- **Abandonment:** The proper closure of a facility, piping, or well, whose use has been discontinued, meeting all applicable state and federal regulations, stipulations, required operating procedures, and best management practices.
- **Active floodplain:** The flat area along a waterbody where sediments are deposited by seasonal or annual flooding; generally demarcated by a visible high-water mark.
- **Aggregation:** An aggregation of marine mammals is defined as three or more animals.
- **Authorized Officer (BLM):** Designated Bureau of Land Management (BLM) personnel responsible for a certain area of a project; for this Record of Decision, generally this would be the BLM State Director or other designated official with delegated authority such as the Arctic District Manager or State Office Branch Chief for Energy and Minerals..
- **Available:** When referring to oil and gas leasing, available lands could be offered. Lands that are already leased could be offered for leasing if the existing lease ends.
- **Class I air quality area:** One of 156 protected areas, such as national parks over 6,000 acres, wilderness areas over 5,000 acres, national memorial parks over 5,000 acres, and international parks that were in existence as of August 1977, where air quality should be given special protection. Federal Class I areas are subject to maximum limits on air quality degradation called air quality increments (often referred to as prevention of significant deterioration [PSD] increments). All areas of the United States not designated as Class I are Class II areas. The air quality standards in Class I areas are more stringent than national ambient air quality standards.
- **Controlled surface use:** A category of moderate constraint stipulations that allows some use and occupancy of public land, while protecting identified resources or values. Applicable to fluid mineral leasing and all activities associated with fluid mineral leasing, such as truck-mounted drilling and geophysical exploration equipment off designated routes and construction of wells and pads. Controlled surface use areas are open to fluid mineral leasing, but the stipulation allows the Bureau of Land Management to require special operational constraints or to shift the activity more than 656 feet to protect the specified resource or value.
- **Consultation:** Exchange of information and interactive discussion; when capitalized it refers to consultation mandated by statute or regulation that has prescribed parties, procedures, and timelines, such as Consultation under the National Environmental Policy Act of 1969 or Section 7 of the Endangered Species Act.
- **Criteria air pollutants:** The six most common air pollutants in the U.S.: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (both PM₁₀ and PM_{2.5} inhalable and respirable particulates), and sulfur dioxide (SO₂). Congress has focused regulatory attention on these six pollutants because they endanger public health and the environment, are widespread

throughout the U.S., and come from a variety of sources. Criteria air pollutants are typically emitted from many sources in industry, mining, transportation, electricity generation, energy production, and agriculture.

- **Deferred:** When referring to oil and gas leasing, indicates that lands would not be offered for lease until a specified period has expired. For example, a 10-year deferral would mean that the deferred lands would not be available for leasing until 10 years after the Record of Decision establishes the 10-year deferral.
- **Development:** The phase of petroleum operations that occurs after exploration has proven successful and before full-scale production. The newly discovered oil or gas field is assessed during an appraisal phase, a plan to fully and efficiently exploit it is created, and additional wells are usually drilled.
- **Essential road/pipeline crossing:** Places where the use authorization indicates the crossing should be to minimize impacts to resources while still achieving the purpose of the project.
- **Exception:** A one-time exemption to a lease stipulation or required operating procedure, determined on a case-by-case basis.
- **Exploration:** The search for economic deposits of minerals, gas, oil, or coal through the practices of geology, geochemistry, geophysics, drilling, shaft sinking, and mapping.
- **Feasible:** Capable of being accomplished in a successful manner within a reasonable time, taking into account economic, environmental, legal, social, and technological factors.
- **Greenhouse gas (GHG):** A gas that absorbs and emits thermal radiation in the lowest layers of the atmosphere. This process is the fundamental cause of the greenhouse effect. The primary greenhouse gases that are considered air pollutants are carbon dioxide, methane, nitrous oxide, and chlorofluorocarbons.
- **Haul-out:** A land or sea-ice location where pinnipeds exit the water for birthing, molting, nursing, resting, and breeding.
- **Hazardous air pollutants (HAPs):** Also known as toxic air pollutants, those that cause or may cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental and ecological effects. The U.S. Environmental Protection Agency is required to control 187 HAPs. Examples of HAPs are benzene (found in gasoline), perchlorethylene (emitted from dry cleaning facilities), and methylene chloride (used as a solvent).
- **Heavy equipment:** All industrial construction, operations, and maintenance vehicles that generally are not intended to be driven on a highway due to their weight, size, or specialized uses.
- **Infrastructure:** The underlying foundation or basic framework; substructure of a community, such as schools, police, fire services, hospitals, water, and sewer systems; permanent structures; does not include subsistence camps and cabins or single-season ice structures.
- **Modification:** A change to a lease stipulation or required operating procedure either temporarily or for the life of the lease.
- **No surface occupancy (NSO):** An area that is open for mineral leasing but does not allow the construction of surface oil and gas facilities in order to protect other resource values.
- **Objective:** A concise, time-specific statement of measurable planned results that respond to pre-established goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used to achieve identified goals.
- **Offshore:** (1) In beach terminology, the comparatively flat zone of variable width, extending from the shoreface to the edge of the continental shelf. It is continually submerged. (2) The direction

seaward from the shore. (3) The zone beyond the nearshore zone where sediment motion induced by waves alone effectively ceases and where the influence of the seabed on wave action is small in comparison with the effect of wind. (4) The breaker zone directly seaward of the low tide line.

- **Occupancy:** The state of occupying, holding, possessing, or residing in or on something.
- **Ordinary high water mark:** A line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.
- **Permanent oil and gas facilities:** Production facilities, pipelines, roads, airstrips, production pads, docks, seawater treatment plants, and other structures associated with oil and gas production that occupy land for more than one winter season. Material sites and seasonal facilities, such as ice roads, are excluded, even when the pads are designed for use in successive winters.
- **Reclamation:** Reclamation helps to ensure that any effects of oil and gas development on the land and on other resources and uses are not permanent. The ultimate objective of reclamation is the rehabilitation of ecosystem function, including re-introduction of any natural vegetation, hydrology, and wildlife habitats affected by surface disturbances from construction and operating activities at an oil and gas site. In most cases, this means a condition or function equal to or closely approximating that which existed before the land was disturbed.
- **Required operating procedure (ROP):** Carried out during proposal implementation and based on laws, regulations, executive orders, Bureau of Land Management planning manuals, policies, instruction memoranda, and applicable planning documents.
- **Riparian:** Occurring next to streams and rivers and directly influenced by water. A riparian community is characterized by certain types of vegetation, soils, hydrology, and fauna and requires free or unbound water or conditions more moist than that normally found in the area.
- **Setback:** A distance by which a structure or other feature is set back from a designated line.
- **Spill prevention control and countermeasure (SPCC) plan:** Required by the U.S. Environmental Protection Agency 40 CFR 112 to be on file within 6 months of project inception; a contingency plan for avoiding, containing, and responding to spills or leaks of hazardous materials.
- **Standard:** A model, example, or goal established by authority, custom, or general consent as a rule for the measurement of quantity, weight, extent, value, or quality.
- **Stipulation:** A requirement or condition or land allocation placed by the Bureau of Land Management on the lease, which binds the leaseholder's operations within that lease. This Decision provides stipulations that apply to all future leases issued under the Plan adopted by this Decision in the National Petroleum Reserve in Alaska.
- **Timing limitation (TL):** This is applicable to fluid mineral leasing, all activities associated with fluid mineral leasing, such as drilling and geophysical exploration equipment off designated routes, and construction of wells and pads, and other surface-disturbing activities, such as those not related to fluid mineral leasing. Areas identified for TL are closed to, or subject to modification to, fluid mineral exploration and development, surface-disturbing activities, and intensive human activity during identified time frames.
- **Unavailable:** When referring to oil and gas leasing, unavailable lands would not be offered for oil and gas leasing.

- **Vertical support member (VSM):** Pipe piling embedded in the ground to support the aboveground pipe in areas of thaw-unstable permafrost.
- **Vibroseis:** A device that uses a truck-mounted vibrator plate coupled to the ground to generate a wave train up to 7 seconds in duration and comprising a sweep of frequencies. The recorded data from an upsweep or down sweep (increasing or decreasing frequency respectively) are added together and compared with the source input signals to produce a conventional-looking seismic section. The device is used increasingly in land surveys instead of explosives.
- **Volatile organic compound (VOC):** A chemical that reacts in the atmosphere with nitrogen oxides in the presence of sunlight and heat to form ozone. VOCs contribute significantly to photochemical smog production and certain health problems. Examples of VOCs are gasoline fumes and oil-based paints.
- **Waiver:** A permanent exemption to a stipulation or required operating procedure.

A.2 APPLICABILITY OF REQUIREMENTS/STANDARDS

A.2.1 Lease Stipulations

Appropriate stipulations are attached to an oil and gas lease when the BLM issues it. As part of a lease contract, stipulations are specific to the lease. All oil and gas activity permits issued to a permittee must comply with the lease stipulations appropriate to the activity under review, such as exploratory drilling or production pad construction.

A stipulation included in an oil and gas lease would be subject to the following, as appropriate:

- A waiver—A permanent exemption to a stipulation on a lease
- An exception—A one-time exemption to a lease stipulation, determined through the normal permitting process
- A modification—A change attached to a lease stipulation, either temporarily or for the life of the lease

The Authorized Officer (AO) may authorize a modification to a lease stipulation only if she or he determines that the factors leading to the stipulation have changed sufficiently to make the stipulation no longer justified; the proposed operation would still have to meet the objective stated for the stipulation.

While the BLM may grant a waiver, exception, or modification of a stipulation through the permitting process, it may also impose additional requirements through permitting terms and conditions to meet the objectives of any stipulation. This would be the case if the AO considers that such requirements are warranted to protect the land and resources, in accordance with the BLM's responsibility under relevant laws and regulations.

A.2.2 Required Operating Procedures

The required operating procedures (ROPs) describe the protective measures that the BLM will impose on applicants during the permitting process. Similar to lease stipulations, the objective of a ROP must be met in order for exceptions, modifications, or waivers to be granted.

Any applicant requesting authorization for an activity from the BLM will have to address the applicable ROPs in one of the following ways:

- Before submitting the application (e.g., performing and documenting subsistence consultation or surveys);
- As part of the application proposal (e.g., including in the proposal statements that the applicant will meet the objective of the ROP and how the applicant intends to achieve that objective); and

- As a term imposed by the BLM in a permit.

At the permitting stage, the BLM Authorized Officer will not include those ROPs that, because of their location or other inapplicability, are not relevant to a specific permit application. Note also that at the permit stage, the BLM AO may establish additional requirements as warranted to protect the land, resources, and uses in accordance with the BLM's responsibilities under relevant laws and regulations.

A.3 LEASE STIPULATIONS, REQUIRED OPERATING PROCEDURES, AND LEASE NOTICES

A.3.1 Lease Stipulations and Required Operating Procedures that Apply in Select Biologically Sensitive Areas¹

Stipulation K-1: River Setbacks

- NSO
- No new infrastructure, except essential road and pipeline crossings
- Sand and gravel mining authorized through the normal review process except for a designated portion of Fish Creek, which is closed

Objective: Minimize the disruption of natural flow patterns and changes to water quality; the disruption of natural functions resulting from the loss or change to vegetative and physical characteristics of floodplain and riparian areas; the loss of spawning, rearing, or overwintering habitat for fish; the loss of cultural and paleontological resources; the loss of raptor habitat; impacts on subsistence cabins and campsites; the disruption of subsistence activities; and impacts on scenic and other resource values.

Requirement/Standard: Permanent oil and gas facilities (e.g., gravel pads, roads, airstrips, and pipelines) are prohibited in the streambed and adjacent to the rivers listed below at the distances identified (see **Appendix B, Map 1** and **Map 2**). Through the normal review process, essential pipeline and road crossings to the main channel would be permitted through setback areas. In addition, sand and gravel mining may be permitted through the normal review process, except in the area specified below around Fish Creek, where sand and gravel mining are prohibited. Sand and gravel mining activity along the important subsistence rivers, listed in **ROP F-3**, would be permitted through the normal review process and restricted to winter activity only. Gravel mines may be located within the active floodplain, consistent with **ROP E-7**.

The below setbacks may not be practical within river deltas; in such deltas, permanent facilities shall be designed to withstand a 200-year flood event in consultation with the BLM AO. In the below list, if no upper limit for the setback is indicated, the setback extends to the head of the stream, as identified in the National Hydrography Dataset.

- a. **Fish Creek:** A 3-mile setback from the highest high water mark of the creek downstream from the eastern edge of section 31, T11N, R1E, U.M. and a 1-mile setback from the bank's highest high water mark farther upstream. Sand and gravel mining are prohibited in the 3-mile portion of the Fish Creek setback.

¹Protections outlined in this section act as both lease stipulations and ROPs. For oil and gas leases, these protections attach to the lease at the time of sale and cannot be superseded by future ROPs in subsequent IAPs. They govern all on-lease infrastructure associated with development of the lease. For oil and gas infrastructure not associated with development of the lease and for non-oil and gas activities permitted in the NPR-A, these protections act as ROPs and attach at the time a permit is issued.

- b. **Colville River:** A 5-mile setback from the boundary of the NPR-A, where the river determines the boundary along the Colville River, as determined by cadastral survey to be the highest high water mark on the left (western or northern) bank south to the juncture of the Colville River and Chandler River. South of that point to its source at the juncture of Thunder and Storm Creeks, the setback would be 1 mile from the NPR-A boundary and from both banks' ordinary high water mark, where the BLM manages both sides of the river up through T1S, R1W, U.M. *Note: The planning area excludes conveyed Native lands along the lower reaches of the Colville River.* Development of road crossings intended to support oil and gas activities shall be consolidated with other similar projects and uses to the maximum extent practicable.
- c. **Ikpikpuk River:** A 2-mile setback from the ordinary high water mark of the Ikpiuk River extending from the mouth upstream through T7 N, R11W, U.M.; above that the setback would be for 1 mile to the confluence of the Kigalik River and Maybe Creek.
- d. **Kikiakrorak and Kogosukruk Rivers:** A 2-mile setback from the top of the bluff or ordinary high water mark, if there is no bluff, on the Kikiakrorak River downstream from T2N., R4W, U.M. and on the Kogosukruk River downstream from T2N, R3W, U.M. The setback from these streams in the named townships and farther upstream, as applicable, would be 0.5 miles from the top of the bluff or bank if there is no bluff. Tributaries to the Kogosukruk River, including Henry Creek and one unnamed tributary off the southern bank, will have a 1-mile setback from the top of the bluff or ordinary high water mark, if there is no bluff upstream from the confluence with the Kogosukruk River to T1N., R1W (Henry Creek) and T1N, R1E (unnamed tributary).
- e. **Titaluk River:** A 2-mile setback from the ordinary high water mark from its confluence with the Ikpiuk River upstream through T7N, R12W, U.M.; above that point the setback would be 0.5 miles from the ordinary high water mark.
- f. **1-mile setback from the ordinary high water mark of the following rivers:**
- Alaktak River
 - Chipp River
 - Topagoruk River
 - Meade River
 - Usuktuk River
 - Nigisaktuvik River
 - Inaru River
 - Avalik River
 - Kungok River
 - Kuk River (upstream from T12N, R32W, U.M.)
 - Ketik River
 - Kaolak River
 - Ivisaruk River (upstream from T12N, R32W, U.M.)
 - Utukok River
 - Kokolik River
 - Kalikpik River
 - Judy Creek

- Ublutuooh (Tijmiasuigvik) River
 - Kuna River
 - Kugrua River
- g. **0.5-mile setback from the ordinary high water mark of the following rivers:**
- Miguakiak River
 - Oumalik River: From the Oumalik River ordinary high water mark from the mouth upstream to section 5, T8N, R14W, U.M., and a 0.5-mile setback in and above section 5, T8N, R14W, U.M.
 - Kigalik River
 - Maybe Creek
 - Ishuktak Creek
 - Pikroka Creek
 - Kucheak Creek
 - Niklavik Creek
 - Kolipsun Creek: From upstream through T13N, R28W, U.M.
 - Maguriak Creek: From upstream through T12N, R29W, U.M.
 - Mikigealiak River: From upstream through T12N, R30W, U.M.
 - Nokotlek River
 - Ongorakvik River
 - Tunalik River
 - Avak River
 - Nigu River: From the confluence with the Etivluk River upstream to the boundary of the NPR-A
 - Etivluk River
 - Ipnarik River
 - Kiligwa River
 - Driftwood Creek
 - Nuka River
 - Awuna River
 - Carbon Creek
 - Keolok Creek

Stipulation K-2: Deep Water Lakes

- NSO
- ROP for new infrastructure
- Sand and gravel mining authorized through the normal review process.

Objective: Minimize the disruption of natural flow patterns and changes to water quality; the disruption of natural functions resulting from the loss or change to vegetative and physical characteristics of deepwater

lakes; the loss of spawning, rearing, or overwintering habitat for fish; the loss of cultural and paleontological resources; impacts on subsistence cabin and campsites; and the disruption of subsistence activities.

Requirement/Standard: Generally, permanent oil and gas facilities (e.g., gravel pads, roads, airstrips, and pipelines) and new infrastructure are prohibited on the lake or lakebed and within 0.25 miles of the ordinary high water mark of any deep lake, as determined to be in lake zone III (i.e., depth greater than 13 feet; Mellor 1985²) (see **Appendix B, Map 1** and **Map 2**). The BLM would permit (through the normal review process) essential pipeline(s) and road crossings, and other permanent facilities may be considered through the permitting process in these areas.

Additional restrictions as described in **ROP E-9** may also apply in those habitats.

Stipulation K-3: Waterbodies and Riparian Areas

Objective: Protect rivers, streams, lakes, and riparian habitat from oil and gas exploratory drilling impacts.

Requirement/Standard: Prohibit exploratory drilling in rivers, streams, lakes, and riparian habitat (as defined above in **Section A.1** and in the glossary of the Final IAP/EIS).

Stipulation K-4: Kogru River, Dease Inlet, Admiralty Bay, Elson Lagoon, Peard Bay, Wainwright Inlet/Kuk and Ivisaruk Rivers, and Kasegaluk Lagoon, and their Associated Islands

- No leasing (Peard Bay and Kasegaluk Lagoon, and their associated islands)
- NSO (Kogru River, Dease Inlet, Admiralty Bay, Elson Lagoon, and Wainwright Inlet/Kuk and Ivisaruk Rivers [downstream from T12N, R32W, U.M.], and their associated islands)
- No new infrastructure except essential pipeline crossings (Kogru River, Dease Inlet, Admiralty Bay, Elson Lagoon, Peard Bay, and Kasegaluk Lagoon, and their associated Islands [see requirement/standard for pipeline crossings])
- New Infrastructure authorized through the normal review process (Wainwright Inlet/Kuk and Ivisaruk Rivers [downstream from T12N, R32W, U.M.])
- Sand and gravel mining authorized through the normal review process

Objective: Protect fish and wildlife habitat (including, but not limited to, that for waterfowl and shorebirds, caribou insect-relief, and marine mammals), preserve air and water quality, and minimize impacts on subsistence activities and historic travel routes on the major coastal waterbodies.

Requirement/Standard: Peard Bay and Kasegaluk Lagoon, and their associated islands are unavailable for leasing. These same areas are closed to new infrastructure, with the exception of essential pipeline crossings (see **Appendix B, Map 1** and **Map 2**).

The Kogru River, Dease Inlet, Admiralty Bay, and Elson Lagoon, and their associated islands are available for leasing, subject to a NSO stipulation. New infrastructure would not be permitted, except for essential pipeline crossings.

Wainwright Inlet/Kuk and Ivisaruk Rivers (downstream from T12N, R32W, U.M.) are available for leasing subject to a NSO stipulation. New infrastructure would be permitted through the normal review process.

²Mellor, J.C. 1985. A Statistical Analysis and Summary of Radar-Interpreted Arctic Lake Depths. Bureau of Land Management - Alaska Technical Report 11. U.S. Department of Interior, Bureau of Land Management, Anchorage.

Essential pipeline crossings would be permitted only on or under the water if they can meet all the following criteria:

- a. Design and construction of facilities shall minimize impacts on subsistence uses, travel corridors, and seasonally concentrated fish and wildlife resources.
- b. Daily operational activities, including use of support vehicles, watercraft, and aircraft traffic, alone or in combination with other past, present, and reasonably foreseeable activities, shall be conducted to minimize impacts on subsistence uses, travel corridors, and seasonally concentrated fish and wildlife resources.
- c. The location of oil and gas facilities, including artificial islands, platforms, associated pipelines, ice or other roads, bridges, or causeways, shall be sited and constructed so as to not pose a hazard to navigation by the public using traditional high-use, subsistence-related travel routes into and through the major coastal waterbodies, as identified by the North Slope Borough (NSB).
- d. Demonstrated year-round oil spill response capability, or such alternative methods as seasonal drilling restrictions, improvements in blowout prevention technology, equipment and/or changes in operational procedures, “top-setting” wells above the hydrocarbon-bearing zone, etc.
- e. Reasonable efforts shall be made to avoid or minimize impacts related to oil spill response activities, including vessel, aircraft, and pedestrian traffic that add to impacts or further compound direct spill-related impacts on area resources and subsistence uses.
- f. Before conducting open water activities, the permittee shall consult with the Alaska Eskimo Whaling Commission and the NSB to minimize impacts on the fall and spring subsistence whaling activities of the communities of the North Slope.

Stipulation K-5: Coastal Area Setback

- NSO
- No new infrastructure, except essential coastal infrastructure (see requirement/standard for essential coastal infrastructure); see **Stipulation K-9** for exception
- Sand and gravel mining authorized through the normal review process

Objective: Protect coastal waters and their value as fish and wildlife habitat (including, but not limited to, that for waterfowl, shorebirds, and marine mammals); minimize hindrance or alteration of caribou movement within caribou coastal insect-relief areas; protect the summer and winter shoreline habitat for polar bears and the summer shoreline habitat for walruses and seals; prevent loss of important bird habitat and alteration or disturbance of shoreline marshes; and prevent impacts on subsistence resources and activities.

Requirement/Standard: The following requirements apply to authorized activities within 1 mile of the coast (see **Appendix B, Map 1** and **Map 2**).

- a. Permanent exploratory well drill pads, production well drill pads, or a central processing facility for oil or gas would not be allowed in coastal waters or on islands between the northern administrative boundary of the Reserve and the mainland, or in inland areas within 1 mile of the coast. *Note: This would include the entire Kasegaluk Lagoon and Peard Bay Special Areas.* Other facilities necessary for oil and gas production within the NPR-A that must be in this area, such as a barge landing, seawater treatment plant, or spill response staging and storage areas, would not be precluded; however, in the Goose Molting Area, the AO must approve siting these facilities within the shoreline buffer. This stipulation also would not preclude infrastructure associated with offshore oil and gas

exploration and production or construction, renovation, or replacement of facilities on existing gravel sites. Except in the Goose Molting Area, permittees shall consider locating facilities at previously occupied sites in this area, such as various Husky/U.S. Geological Survey drill sites and Distant Early Warning Line sites. All permittees involved in activities in the immediate area must coordinate use of these new or existing sites with other prospective users. Before conducting open water activities, permittees shall consult with the Alaska Eskimo Whaling Commission, the NSB, and local whaling captain associations to minimize impacts on the fall and spring subsistence whaling activities of the North Slope communities. In a case in which the BLM authorizes a permanent oil and gas facility in the coastal area, the permittee shall develop and implement a monitoring plan to assess the effects of the facility and its use on coastal habitat and use.

- b. Marine vessels used as part of a BLM-authorized activity shall maintain a 1-mile buffer from the shore when transiting past an aggregation of seals (primarily spotted seals), walrus or Stellar's sea lions using a terrestrial haul-out, unless doing so would endanger human health and safety, or violate safe boating practices.
- c. Marine vessels shall not conduct ballast transfers or discharge any matter into the marine environment within 3 miles of the coast, except when necessary for the safe operation of the vessel.

Stipulation K-6: Goose Molting Area

- NSO within 0.5 miles of identified goose molting lakes
- Controlled surface use/timing limitations
- No new infrastructure, except for essential pipeline crossings, within 0.5 miles of identified goose molting lakes
- Sand and gravel mining authorized through the normal review process

Objective: Minimize disturbance to molting geese and loss of goose molting habitat in and around lakes in the Goose Molting Area.

Requirement/Standard (General): Within the Goose Molting Area, no permanent facilities except for pipelines, would be allowed within 0.5 miles of the shoreline of selected lakes (see **Appendix B, Map 1** and **Map 2**). Lakes were selected based on the 85 percent distribution of black brant within the Goose Molting Area. No waiver, exception, or modification would be considered, except for community infrastructure. For all other permitted activities, the following standards would be followed:

- a. From June 1 through August 20, all off-pad activities shall be suspended (see part “d” under **Stipulation K-8**), unless approved by the AO. The intent of this requirement is to restrict activities that would disturb molting geese and nesting spectacled eiders when those species are present.
- b. Water extracted from any lakes used by molting geese shall not alter hydrological conditions that could adversely affect identified goose-feeding habitat along lakeshore margins. Considerations would be given to seasonal use by permittees (generally in winter) and geese (generally in summer), as well as recharge to lakes from the spring snowmelt.
- c. Oil and gas activities would avoid altering (i.e., damaging or disturbing soils, vegetation, or surface hydrology) critical goose-feeding habitat types along lakeshore margins (grass/sedge/moss) and salt marsh habitats. Permanent oil and gas facilities, including gravel roads, pads, and airstrips, but excluding pipelines, and material sites would be sited outside the identified buffers and restricted surface occupancy areas.

- d. Strategies to minimize ground traffic shall be implemented from June 1 through August 20. These strategies will be submitted as part of the vehicle use plan (**ROP M-1**) and may include limiting trips and usage of convoys and different vehicle types, to the extent practicable. In the Goose Molting Area, aircraft, including fixed-wing and helicopters, shall be restricted from June 1 through August 20, unless doing so endangers human health or safety, or violates safe flying practices. For example, restrictions may include limiting flights to a set number of roundtrips per week and along set corridors established by the BLM after discussions with the permittee and appropriate federal, State, and NSB regulatory and resource agencies. The permittee shall submit with the development proposal an aircraft use plan (**ROP F-1**) that considers these and other mitigation. *Note: This site-specific ROP is not intended to restrict flights necessary to survey wildlife in order to gain information necessary to meet the stated objective of the stipulations and ROPs; however, flights necessary to gain this information would be restricted to the minimum necessary to collect such data, and alternative means of collecting the data would be prioritized over aerial surveys, as practical.*
- e. For permits for development issued under this IAP/EIS, the BLM may require the permittee to conduct monitoring studies necessary to adequately determine consequences of development and any need for change to mitigations. Monitoring studies would be site and development specific and would be within a set of overarching guidelines developed by the BLM after conferring with appropriate federal, State, and NSB agencies.

Stipulation K-7: Brant Survey Area

- Controlled surface use/timing limitations
- ROP for new infrastructure
- Sand and gravel mining authorized through the normal review process

Objective: Minimize the loss or alteration of habitat for, or disturbance of, nesting and brood-rearing brant in the Brant Survey Area.

Requirement/Standard: The Brant Survey Area is open to oil and gas leasing, subject to controlled surface use and TL stipulations listed below (see **Appendix B, Map 1** and **Map 2**). New infrastructure would be allowed through the normal review process, subject to the requirements below.

The following requirements apply:

- a. The BLM will require submittal of a minimum of 2 years of site-relevant survey data for brant nesting colonies and brood-rearing areas before construction of permanent facilities is authorized. The survey area shall generally include the proposed development sites (i.e., the footprint) and the surrounding 0.5-mile area. If such data do not exist, the permittee may be required to gather these data.
- b. Development may be prohibited or activities curtailed within 0.5 miles of identified brant nesting colonies and brood-rearing areas identified during the 2-year survey.
- c. In the Brant Survey Area from June 1 through August 20, all off-pad activities shall be suspended (see part “d” under **Stipulation K-8**), unless approved by the AO. The intent of this requirement is to restrict activities that would disturb nesting and brood-rearing brant when they are present.
- d. Water extraction from any lakes used by nesting and brood-rearing brant shall not alter hydrological conditions that could adversely affect identified brant feeding habitat along lakeshore margins. Consideration should be given to seasonal use by permittees (generally in winter) and brant (generally in summer), as well as recharge to lakes from the spring snowmelt.

- e. Permitted activities would avoid altering habitat features, such as damaging or disturbing soils, vegetation, or surface hydrology, in critical brant feeding habitat types along lakeshore margins (grass/sedge/moss) and salt marsh habitats.
- f. Strategies to minimize ground traffic shall be implemented from June 1 through August 20. These strategies may include limiting trips, use of convoys, and different vehicle types, to the extent practicable. Strategies will be outlined in the vehicle use plan (see **ROP M-1**).
- g. In the Brant Survey Area, aircraft use (including fixed-wing and helicopter) shall be restricted from June 1 through August 20, unless doing so endangers human health or safety or violates safe flying practices. For example, restrictions may include limiting flights to a set number of roundtrips per week and along set corridors established by the BLM after discussions with the permittee and appropriate federal, State, and NSB regulatory and resource agencies. *Note: This site-specific ROP is not intended to restrict flights to survey wildlife to gain information necessary to meet the stated objective of the stipulations and ROPs; however, such flights would be restricted to the minimum necessary to collect such data, and alternative means of collecting the data would be prioritized over aerial surveys, as practical.*

Stipulation K-8: Teshekpuk Caribou Herd Habitat Area

- NSO (3-mile lake buffer north; 1-mile lake buffer south)/timing limitations (75 percent parturient calving kernel); see **Stipulation K-9** for exception.
- No new infrastructure (3-mile lake buffer north; 1-mile lake buffer south)/ROP for new infrastructure (75 percent parturient calving kernel); see **Stipulation K-9** for exception.
- Sand and gravel mining authorized through the normal review process

Objective: Minimize disturbance and hindrance of caribou or alteration of caribou movements through portions of the Teshekpuk Caribou Herd (TCH) Habitat Area that are essential for all-season use, including calving and rearing, insect-relief, and migration/movements.

Requirement/Standard: Area within 3 miles of Teshekpuk Lake, except for the southern shore, is open to leasing, subject to a NSO stipulation (see **Appendix B, Map 1** and **Map 2**). Federal mineral estate within 1 mile of the southern shore of Teshekpuk Lake is open to leasing, subject to a NSO stipulation. No exceptions, waivers, or modifications would be permitted, except as outlined in **Stipulation K-9**. Permitted activities will comply with the following requirements:

In the TCH Habitat Area (the 75 percent parturient calving kernel), the following standards would be applied to permitted activities:

- a. Before authorization of construction of permanent facilities, the BLM will require submittal of information on caribou movement for the TCH. The permittee may be required to gather this information, or this requirement may be waived if an acceptable study specific to the TCH already exists. The information shall include multiple years of seasonal distribution and movement of the TCH. The information must include some recent data and must be sufficient to capture a realistic picture of trends in distribution and movements. The information should be sufficient to determine facility design and location, including pipelines. Permittee may submit individual study proposals or may combine with other permittees in the area to do a single, joint study for the entire TCH Habitat Area (the 75 percent calving caribou kernel). Study data may be gathered concurrently with other activities, as approved by the AO. A final report of any study results would be prepared and submitted to the BLM.

- b. Within the TCH Habitat Area (the 75 percent parturient calving kernel), permittee shall orient linear corridors when laying out oil and gas field developments to address seasonal distribution and avoid corralling effects from loops of road and/or pipeline that connect facilities.
- c. Off-pad activities shall be suspended within TCH Habitat Area (the 75 percent parturient calving kernel) from May 20 through June 20, unless approved by the AO. The intent of this requirement is to restrict activities that would disturb caribou during calving. The permittee shall submit with the development proposal a stop work plan that considers this and any other mitigation related to caribou early arrival. The intent of this latter requirement is to provide flexibility to adapt to changing climate conditions that may occur during the life of fields in the region.
- d. The following ground traffic restrictions shall apply in the areas and time periods indicated. Ground traffic restrictions apply to permanent oil and gas-related roads:
 - i. Within the TCH Habitat Area (the 75 percent parturient calving kernel), from May 20 through August 20, traffic speed shall not exceed 15 miles per hour when caribou are within 0.5 miles of the road. Additional strategies may include limiting trips, using convoys, using different vehicle types, stockpiling equipment and materials, etc., to the extent practicable. The permittee shall submit with the development proposal a vehicle use plan (see **ROP M-1**) that considers these and any other mitigation.
 - ii. The permittee shall observe caribou movement from May 20 through August 20, or earlier if caribou are present prior to May 20. Based on these observations, traffic would be stopped:
 - a) Temporarily to allow a crossing by 10 or more caribou. The permittee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation.
 - b) By direction of the AO, traffic may be stopped through the TCH Habitat Area (the 75 percent parturient calving kernel) for a limited amount of time, and only if necessary to prevent displacement of calving caribou. Such closures will not be undertaken without first consulting with permittees to assess operational impacts on permitted activities.
- e. See **ROPs F-1** through **F-3** for aircraft restrictions

Stipulation K-9: Teshekpuk Caribou Herd Movement Corridor

- NSO
- No new infrastructure, except pipelines
- Sand and gravel mining authorized through the normal review process

Objective: Minimize disturbance and hindrance of caribou or alteration of their movements that are essential for all-season use, including calving and rearing, insect-relief, and migration, in the area extending from the eastern shore of Teshekpuk Lake to approximately 6 miles eastward toward the Kogru Inlet and the area next to the northwest corner of Teshekpuk Lake.

Requirement/Standard: In the Caribou Movement Corridors, a NSO stipulation would be applied, and no permanent oil and gas facilities, except for pipelines, would be allowed (see **Appendix B, Map 1** and **Map 2**). A pipeline through these areas could be located within the coastal setback (Stipulation K-5) or the setback around Teshekpuk Lake (**Stipulation K-8**), if it is determined to be the environmentally preferable option.

Stipulation K-10: Pik Dunes

- NSO
- No new infrastructure
- Sand and gravel mining prohibited

Objective: Retain unique qualities of the Pik Dunes, including geologic and scenic uniqueness, insect-relief habitat for caribou, and habitat for several uncommon plant species.

Requirement/Standard: Surface structures, except approximately perpendicular pipeline crossings and ice pads, are prohibited in the Pik Dunes (see **Appendix B, Map 1** and **Map 2**).

Permittees may be required to conduct a plant survey prior to constructing an ice pad if an adequate survey does not already exist, and shall avoid construction where special status plant species are identified.

Stipulation K-11: Utukok River Uplands Special Area

- No leasing (Western Arctic Herd [WAH] core calving area)
- NSO (WAH movement corridor)
- Timing limitation in remainder of Special Area
- No new infrastructure (WAH core calving area)
- No new infrastructure except for essential road and pipeline crossings (WAH movement corridor)
- Sand and gravel mining authorized through the normal review process

Objective: Minimize disturbance and hindrance of caribou or alteration of caribou movements through the Utukok River Uplands Special Area that are essential for all-season use, including calving and rearing, insect-relief, and migration.

Requirement/Standard: No new leasing and no new infrastructure in the WAH core calving area in the Utukok River Uplands Special Area. NSO and no new infrastructure except essential road and pipeline crossings in the WAH movement corridor (see **Appendix B, Map 1** and **Map 2**).

In the Utukok River Uplands Special Area, the following standards would be applied to permitted activities:

- a. Before authorization of construction of permanent facilities, the BLM will require submittal of information on caribou movement for the WAH. The permittee may be required to gather this information, or this requirement may be waived if an acceptable study specific to the WAH already exists. The information shall include multiple years of seasonal distribution and movement of the WAH. The information must include some recent data and must be sufficient to capture a realistic picture of trends in distribution and movements. The information should be sufficient to determine facility design and location, including pipelines. Permittee may submit individual study proposals or may combine with other permittees in the area to do a single, joint study for the entire Utukok River Uplands Special Area. Study data may be gathered concurrently with other activities, as approved by the AO. A final report of any study results would be prepared and submitted to the BLM.
- b. Within the Utukok River Uplands Special Area, permittees shall orient linear corridors when laying out oil and gas field developments to address seasonal movements and avoid corralling effects from loops of road and/or pipeline that connect facilities.
- c. Off-pad activities shall be suspended within the Utukok River Uplands Special Area from May 20 through June 20, unless approved by the AO. The intent of this requirement is to restrict activities

that would disturb caribou during calving. The permittee shall submit with the development proposal a stop work plan that considers this and any other mitigation related to caribou early arrival. The intent of this latter requirement is to provide flexibility to adapt to changing climate conditions that may occur during the life of fields in the region.

- d. The following ground and air traffic restrictions shall apply to permanent oil and gas-related roads in the areas and time periods indicated:
- i. Within the Utukok River Uplands Special Area, from May 20 through August 20, traffic speed shall not exceed 15 miles per hour when caribou are within 0.5 miles of the road. Additional strategies may include limiting trips, using convoys, using different vehicle types, stockpiling equipment and supplies, etc., to the extent practicable. The permittee shall submit with the development proposal a vehicle use plan (see **ROP M-1**) that considers these and any other mitigation.
 - ii. The permittee shall observe caribou movement from May 20 through August 20, or earlier if caribou are present prior to May 20. Based on these observations, traffic would be stopped:
 - a) Temporarily to allow a crossing by 10 or more caribou. Sections of road would be evacuated whenever an attempted crossing by a large number of caribou appears to be imminent.
 - b) By direction of the AO, traffic may be stopped through the Utukok River Uplands Special Area for a limited amount of time, and only if necessary, to prevent displacement of calving caribou. Such closures will not be undertaken without first consulting with permittees to assess operational impacts on permitted activities.
 - iii. Within the Utukok River Uplands Special Area, aircraft use (including fixed-wing and helicopter) shall be restricted from May 20 through August 20, unless doing so endangers human health and safety, or violates safe flying practices. For example, restrictions may include limiting flights to a set number of roundtrips with certain types of aircraft per week along set corridors established by the BLM, after discussions with the permittee and with appropriate federal, State, and NSB regulatory and resource agencies. The permittee shall submit with the development proposal an aircraft use plan (see **ROP F-1**) that considers these and other mitigation. This lease stipulation is not intended to restrict flights necessary to survey wildlife to gain information necessary to meet the stated objective of the stipulations and ROPs; however, flights necessary to gain this information would be restricted to the minimum necessary to collect such data, and alternative means of collecting the data would be prioritized over aerial surveys, as practical.

Stipulation K-12: Federal Mineral Estate under Allotments

- NSO (1 mile)
- Sand and gravel mining authorized through the normal review process

Objective: Minimize disturbance to Native subsistence hunters resulting from development, and ensure access to Native allotments.

Requirement/Standard: Permanent oil and gas facilities within 1 mile of Native allotments are prohibited, except for essential road and pipeline crossings in areas of overlapping setbacks (see **Appendix B, Map 1** and **Map 2**). Exceptions would be granted with the permission of the owner of the allotment. In cases of

overlapping setbacks, the permittee would need the permission of the primary owners of the allotments to develop within the setback. Allotment owners may not waive setbacks defined in **Stipulation K-1**.

Stipulation K-13: Lease Deferral

- No leasing for at least 10 years

Objective: Minimize the impact of rapid development on the communities within the NPR-A.

Requirement/Standard: Lease tracts that are surrendered or currently unleased within the deferral area would not be offered for lease for the stated period of time after the signing of the ROD.

- a. The Teshekpuk Lake deferral area encompasses land on the eastern edge of the NPR-A boundary and land around Teshekpuk Lake and Atigaru Point (see **Appendix B, Map 2**). This lease deferral is valid for 10 years. From the eastern NPR-A boundary, the deferral area includes most of the following townships:
 - T14N, R1E, U.M.
 - T14N, R1W, U.M.
 - T14N, R2W, U.M.
 - T14N, R3W, U.M.
 - T14N, R4W, U.M.
 - T15N, R8W, U.M.
 - T16N, R8W, U.M.
 - T17N, R8W, U.M.
 - T15N, R9W, U.M.
 - T16N, R9W, U.M.
 - T17N, R9W, U.M.

Stipulation K-14: Federal Mineral Estate under Native Lands

- NSO. Exceptions would be granted with permission from the surface landowner. Surface owners may not waive setbacks defined in **Stipulation K-1**.
- Sand and gravel mining authorized through the normal review process

(See **Appendix B, Map 1** and **Map 2**)

A.3.2 Required Operating Procedures

Waste Prevention, Handling, Disposal, Spills, and Public Safety

ROP A-1: Waste and Litter

Objective: Protect public health, safety, and the environment by disposing of solid waste and garbage in accordance with applicable federal, State, and local laws and regulations.

Requirement/Standard: Areas of operation shall be left clean of all debris. All solid waste and industry-derived trash originating from permitted activities are required to be properly containerized while on-site or removed from the area of operation and activity.

ROP A-2: Waste Management Plan

Objective: Minimize potential impacts on the environment from nonhazardous and hazardous waste generation. Encourage continuous environmental improvement. Protect the health and safety of oil field workers, local communities, subsistence users, recreationists, and the general public. Avoid human-caused changes in predator populations. Minimize attraction of predators, particularly bears, to human use areas.

Requirement/Standard: Permittees shall prepare and implement a comprehensive waste management plan; the AO may waive this requirement for minimally impactful activities. The plan shall be submitted to the AO for approval as part of a plan of operations or other similar permit application.

Management decisions affecting waste generation would be addressed in the following order of priority: 1) prevention and reduction, 2) recycling, 3) treatment, and 4) disposal. The plan would consider and take into account the following requirements:

- a. Disposal of food or other organic waste. Permittees shall have a written procedure to ensure that the handling and disposal of food or other organic waste will be accomplished in a manner that prevents the attraction of wildlife. All food or other organic waste shall be incinerated, backhauled, or composted.
- b. All solid waste, including incinerator ash, shall be disposed of in an approved waste-disposal facility, in accordance with U.S. Environmental Protection Agency (EPA) and Alaska Department of Environmental Conservation (ADEC) regulations and procedures.
- c. The burial of human waste is prohibited, except as authorized by the AO.
- d. Use bear-resistant containers for all waste materials and classes that are bear attractants. The plan will include a list of all classes of waste material that are bear attractants and thus must be stored in bear-resistant containers.

Disposal of pumpable waste products. Except as specifically provided, the BLM requires that all pumpable solid, liquid, and sludge waste be disposed of by injection, in accordance with EPA, ADEC, and the Alaska Oil and Gas Conservation Commission regulations and procedures. On-pad temporary muds and cuttings storage, as approved by ADEC, will be allowed as necessary to facilitate annular injection and/or backhaul operations.

ROP A-3 Hazardous Substances Contingency Plans

Objective: Minimize potential pollution through effective hazardous substances contingency planning.

Requirement/Standard: For oil and gas-related activities, a hazardous substances contingency plan shall be prepared and implemented before transportation, storage, or use of hazardous substances. The plan shall include the following:

- a. Identification of the hazardous substances
- b. Procedures for proper storage and handling of the hazardous substances
- c. Procedures for prompt response, notification, and cleanup in the event of a release

If the elements of this plan are included in documents prepared to meet other federal, State, or local requirements, the AO may approve referencing the appropriate documents instead of preparing a hazardous substances contingency plan.

ROP A-4: Spill Prevention

Objective: Minimize potential impacts of contaminants on fish, wildlife, and the environment, including wetlands, marshes, and marine waters, as a result of fuel spills. Protect subsistence resources and subsistence activities. Protect public health and safety.

Requirement/Standard: Permittees with oil storage capacity of 1,320 gallons or greater shall prepare a spill prevention, control, and countermeasure plan as required by 40 Code of Federal Regulations (CFR) 112. Additionally, all permittees shall be required to do the following:

- a. Notice of any spill shall be given to the AO as soon as possible but no later than 24 hours after occurrence. Other federal, State, and NSB entities shall be notified as required by law.
- b. All spills shall be cleaned up immediately and to the satisfaction of the AO and all agencies with regulatory authority over spills.
- c. Sufficient oil spill cleanup materials (sorbent pads, containment devices, etc.) shall be stored at all fueling points and maintenance areas. Drip basins and/or sorbent pads would be placed under all non-dry disconnect type fuel line couplings and valves during fueling.
- d. All fuel and oil or petroleum product containers, including barrels and propane tanks, shall be marked with the permittee's name and the product type. Duck ponds shall be marked with the permittee's name.
- e. Fuel containers and hazardous materials containers of any size shall be stored in secondary containment.

ROP A-5: Refueling and Fuel Storage

Objective: Minimize potential impacts of contaminants from refueling operations on fish, wildlife, and the environment.

Requirement/Standard: Fuel storage and refueling of equipment within 100 feet of any lake shoreline or top of streambank is prohibited. Small fuel caches (up to 210 gallons) are permitted within this distance. The AO may allow larger fuel caches or refueling operations within the 100 foot setback if properly designed to account for local site conditions.

ROP A-6: Minimize Wildlife Interaction

Objective: Minimize conflicts between humans and wildlife and avoid human-caused increases in predator populations.

Requirement/Standard: Permittees shall minimize conflicts between wildlife and humans.

- a. Permittee shall develop a site-specific wildlife interaction plan that would include, but is not limited to:
 - i. Strategies to minimize attraction of wildlife to activity sites.
 - ii. Organizing layout of buildings and work sites to minimize human/wildlife interactions.
 - iii. Warning personnel of bears near or on work sites and identifying proper procedures to be followed.
 - iv. Establishing procedures, if authorized, to discourage wildlife from approaching the work site.
 - v. Providing contingencies in the event bears do not leave the site or cannot be discouraged by authorized personnel.

- vi. Establishing proper storage and disposal of materials that may be toxic or attractants to wildlife.
- b. Provide, annually, a systematic record of all species of bears on and near the project area.
- c. Incorporate into infrastructure design measures to deter ravens, raptors, and foxes from nesting, denning, or seeking shelter. The permittee shall provide the AO with an annual report on any instances when, despite use of such measures, the use of infrastructure by ravens, raptors, and foxes did occur.
- d. Feeding wildlife is prohibited.
- e. Prevent the emission of odors by installing kitchen hood exhaust filtration systems such as cleaners, filters, purifiers, and scrubbers.

ROP A-7: Air Quality

Objective: Prevent unnecessary or undue degradation of the air and lands, and protect health.

Requirement/Standard: This measure includes the following elements:

- a. Prior to initiation of National Environmental Policy Act (NEPA) analysis for an application to develop a central processing facility, production pad/well, airstrip, road, gas compressor station, or other potential air pollutant emission source (hereafter called project), the BLM AO may require the permittee to provide up to 1 year of baseline ambient air monitoring data. Such a determination would be made in consultation with the EPA/ADEC and with the permittee, to assess the technical practicability of any new data collection. If the BLM determines that baseline monitoring is required, this pre-analysis data must meet ADEC and EPA air monitoring standards. The BLM will not require pre-project monitoring when the life of the project is less than 1 year.
- b. For an application to develop a central production facility, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source, the permittee shall prepare and submit for BLM approval an emissions inventory that includes quantified emissions of regulated air pollutants from all direct and indirect sources related to the proposed project. This includes reasonably foreseeable air pollutant emissions of criteria air pollutants, volatile organic compounds, hazardous air pollutants, and greenhouse gases estimated for each year for the life of the project. The BLM uses this estimated emissions inventory to identify pollutants of concern and to determine the appropriate form of air analysis to be conducted for the proposed project.
- c. The BLM may require air quality modeling for purposes of analyzing project direct, indirect, or cumulative impacts on air quality, air quality-related values, and hazardous air pollutants, should no recent modeling analysis be available as a proxy. The BLM may require air quality modeling depending on the following:
 - i. The magnitude of potential air emissions from the project
 - ii. Proximity to a federally mandated Class I area
 - iii. Proximity to a population center
 - iv. Location in or proximity to a non-attainment or maintenance area
 - v. Meteorological or geographic conditions
 - vi. Existing air quality conditions
 - vii. Magnitude of existing development in the area
 - viii. Issues identified during the NEPA process

- d. The BLM will determine the information required for a project-specific modeling analysis through the development of a modeling protocol for each analysis. The BLM will consult with appropriate federal (including federal land managers), State, and/or local agencies and with the permittee regarding modeling to inform its modeling decision and avoid duplication of effort.
- e. The BLM may require the proponent to provide an emissions reduction plan that includes a detailed description of permittee-committed measures to reduce project-related air pollutant emissions, including, but not limited to, criteria pollutants, hazardous air pollutants, greenhouse gases, heavy metals, mercury, and fugitive dust.
- f. Air monitoring or air modeling reports will be provided to the BLM.
- g. The BLM may require monitoring, depending on the following:
 - i. The magnitude of potential air emissions from the project
 - ii. Meteorological or geographic conditions
 - iii. Magnitude of existing development in the area
 - iv. Issues identified during the NEPA process
 - v. Proximity to a population center

Alternatively, copies of the Facility Operating Report, prepared for ADEC in compliance with the State of Alaska air quality regulations, may be submitted to satisfy this requirement.

- h. If ambient air monitoring or air quality modeling indicates that project-related emissions cause or contribute to unnecessary or undue degradation of the public lands, or exceedances of the National Ambient Air Quality Standards/Alaska Ambient Air Quality Standards, air quality-related values, and hazardous air pollutants threshold levels, then the BLM may require the permittee to change their proposal or propose mitigation to reduce impacts or comply with the National Ambient Air Quality Standards/Alaska Ambient Air Quality Standards. Project changes and mitigation measures will be analyzed through appropriate NEPA analysis to determine effectiveness.

ROP A-8: Firefighting Foam Standards

Objective: To prevent the release of poly- and perfluoroalkyl substances associated with the use of aqueous film-forming foam, a firefighting foam designed to extinguish flammable and combustible liquids and gases.

Requirement/Standard: At facilities where firefighting foam is required, permittees shall use fluorine-free foam unless otherwise approved in a State- or federally required plan. If aqueous film-forming foam use is approved in the permittee's plan, the permittee shall contain, collect, treat, and properly dispose of all runoff wastewater from training events, and, to the greatest extent possible, from any emergency response events. All discharges must be reported to the BLM AO as soon as possible, but no later than 24 hours after occurrence. Other federal, State, and NSB entities shall be notified as required by law. Measures should also be taken to fully inform workers/trainees of the potential health risks of fluorinated foams and to specify appropriate personal protective equipment to limit exposure during training and use. Training events shall be conducted in lined areas or basins to prevent the release of poly- and perfluoroalkyl substances associated with aqueous film-forming foam.

ROP A-9: Vehicle Idling Standards

Objective: Reduce air emissions and protect human health.

Requirement/Standard:

- a. All permanent camps (year-round occupancy), and temporary camps where feasible, are required to provide vehicle plug-ins for engine warming systems (e.g., block heaters and oil pan heaters).
- b. Reduce extended vehicle idling when practical. In the winter, when vehicles are not in use for extended periods, they shall generally be powered off and plugged in where plugs are available, except in cases of extremely cold temperatures (vehicle dependent) when plug-ins may not provide sufficient warmth.

Water Use for Permitted Activities

ROP B-1: Water Use from Rivers and Streams

Objective: Maintain populations of, and adequate habitat for, fish and invertebrates.

Requirement/Standard: Withdrawal of unfrozen water from rivers and streams during winter is prohibited. The removal of ice aggregate from grounded areas ≤ 4 feet deep may be authorized from rivers on a site-specific basis.

ROP B-2: Water Use from Lakes

Objective: Maintain natural hydrologic regimes in soils surrounding lakes and ponds and maintain populations of, and adequate habitat for, fish, aquatic invertebrates, and birds.

Requirement/Standard: Withdrawal of unfrozen water from lakes and the removal of ice aggregate from grounded areas 4 feet deep or less during winter and withdrawal of water from lakes during the summer may be authorized on a site-specific basis, depending on water volume and depth, the fish community, and connectivity to other lakes or streams.

Winter Water Use

- a. Lakes with sensitive fish (i.e., any fish except ninespine stickleback or Alaska blackfish): Unfrozen water available for withdrawal is limited to 15 percent of calculated volume deeper than 7 feet.
- b. Lakes with only nonsensitive fish (i.e., ninespine stickleback or Alaska blackfish): Unfrozen water available for withdrawal is limited to 30 percent of calculated volume deeper than 5 feet.
- c. Lakes with no fish, regardless of depth: Unfrozen water available for withdrawal is limited to 20 percent of total lake volume.
- d. Ice aggregate may be removed from grounded areas 4 feet deep or less on any lake. The combination of unfrozen water and ice aggregate must not exceed 20 percent of total lake volume at lakes with resistant fish species only and lakes with no fish. The combination of unfrozen water and ice aggregate must not exceed 20 percent of total lake volume at lakes with sensitive fish species.
- e. Compacting snow cover or removing snow from ungrounded ice areas of fish-bearing waterbodies would be prohibited, except at approved ice road and snow trail stream crossings, water pumping stations on lakes, and ice airstrips on lakes. Additional data collection may be required at ice airstrips.

Summer Water Use

- f. Requests for summer water use must be made separately, and the volume allowance would be evaluated through the normal permitting process. Approval from the BLM AO is required.

All Water Use

- g. Any water intake structures in fish-bearing or non-fish-bearing waters shall be designed, operated, and maintained to prevent fish entrapment, entrainment, or injury. All water withdrawal equipment must be equipped with and use fish screening devices approved by the Alaska Department of Fish and Game (ADF&G) Habitat Section.
- h. Additional modeling or monitoring may be required to assess lake water level, outlet flow, and/or water quality conditions before, during, and after water use from any lake of special concern.
- i. A daily record of water removed as unfrozen water or ice aggregate (separately) must be maintained and submitted to the BLM with the weekly report of activities. Submitting water and ice use in the format specified by the BLM is required.
- j. The BLM must be notified within 48 hours if water removal exceeds the volume approved at any lake.
- k. The BLM must be notified within 48 hours of any observation of dead or injured fish on water source intake screens, in the hole being used for pumping, or within any portion of ice roads or pads. If observed at a particular lake, pumping must cease temporarily from that hole until additional preventive measures are taken to avoid further impacts on fish.

Winter Overland Moves and Seismic Work

The following ROPs apply to overland moves, seismic work, and any similar cross-country vehicle use of heavy equipment on non-roaded surfaces during the winter season. These restrictions do not apply to the use of such equipment on ice roads after they are constructed.

ROP C-1: Den Buffers and Survey Requirements

Objective: Protect grizzly bear, polar bear, and marine mammal sea ice breathing holes, lairs, and birthing locations.

Requirement/Standard:

- a. Grizzly bear dens—Cross-country use of all vehicles, equipment, and oil and gas activity is prohibited within 0.5 miles of occupied grizzly bear dens identified by the ADF&G or the U.S. Fish and Wildlife Service (USFWS), unless alternative protective measures are approved by the BLM AO, in consultation with the ADF&G.
- b. Polar bear dens—Cross-country use of vehicles, equipment, oil and gas activity, and seismic survey activity is prohibited within 1 mile of known or observed polar bear dens, unless alternative protective measures are approved by the BLM AO and are consistent with the Marine Mammal Protection Act and the Endangered Species Act (ESA).
- c. In order to limit disturbance around known polar bear dens, implement the following:
 - i. Attempt to locate polar bear dens—Permittees seeking to carry out onshore activities in known or suspected polar bear denning habitat during the denning season (approximately November to April) must make efforts to locate occupied polar bear dens within and near areas of operation, utilizing den detection techniques approved in consultation with the USFWS. All observed or suspected polar bear dens must be reported to the USFWS prior to the initiation of activities.
 - ii. Observe the exclusion zone around known polar bear dens—Permittees must observe a 1-mile operational exclusion zone around all known polar bear dens during the denning season

- (approximately November–April, or until the female and cubs leave the areas). Should previously unknown occupied dens be discovered within 1 mile of activities, work must cease and the USFWS must be contacted for guidance. The USFWS will evaluate these instances to recommend the appropriate action. Potential actions may range from cessation or modification of work to conducting additional monitoring, and the holder of the authorization must comply with any additional measures specified.
- iii. Use the den habitat map developed by the U.S. Geological Survey—This measure ensures that the location of potential polar bear dens is considered when conducting activities in the coastal areas of the Beaufort Sea.
 - iv. Polar bear den restrictions—Restrict the timing of the activity to limit disturbance around dens.
- d. In order to limit disturbance of activities to seal lairs in the nearshore area (< 9.8-foot water depth):
- i. Specific to seismic operations:
 - a) Prior to the initiation of winter seismic surveys on marine ice, the permittee will conduct a sound source verification test approved by the BLM and National Marine Fisheries Service (NMFS). The test is to measure the attenuation distance to the 120 decibels re 1 micro Pascal of project-associated sound levels through grounded ice to areas potentially occupied by ice seals (ungrounded ice and open water). The permittee will share the results with the BLM and the NMFS. The attenuation distance will be used to buffer all marine on-ice seismic survey activity operations to areas potentially occupied by ice seals.
 - ii. For all activities:
 - a) Maintain airborne sound levels of equipment below 100 decibels re 20 micro Pascals at 66 feet. If equipment will be used that differs from what was originally proposed, the permittee must inform the BLM AO and share sound levels and air and water attenuation information for the new equipment.
 - b) On-ice operations after May 1 will employ a full-time, trained, protected species observer on vehicles to ensure that all basking seals are avoided by vehicles by at least 500 feet and will ensure that all equipment with airborne noise levels above 100 decibels re 20 micro Pascals are operating at distances from observed seals that allow for the attenuation of noise to levels below 100 decibels. All sightings of seals will be reported to the BLM using a NMFS-approved observation form.
 - c) Sea ice trails must not be greater than 12 feet wide. No driving will be allowed beyond the shoulder of the ice trail or off planned routes unless necessary to avoid ungrounded ice or for other human or marine mammal safety reasons. On-ice driving routes shall minimize travel over snow/ice/topographical features that could foster the development of birthing lairs.
 - d) No unnecessary equipment or operations (e.g., camps) will be placed or used on sea ice.

ROP C-2: Winter Tundra Travel

Objective: Protect stream banks, minimize compaction of soils, and minimize the breakage, abrasion, compaction, or displacement of vegetation.

Requirement/Standard:

- a. Off-road travel will be allowed by the BLM AO when soils are frozen to sufficient depth (defined by a soil temperature of 23 degrees Fahrenheit or lower at a depth of 12 inches), and 6 inches of snow cover exists. Snow distribution and pre-packing may be used to maintain sufficient snow cover in areas of poor snow coverage. The permittee shall submit data to the BLM to show that these conditions have been reached prior to conducting work.
- b. Snow survey and soil freeze-down data collected for ice road or snow trail planning and monitoring shall be submitted to the BLM with the required weekly report of operations.
- c. Off-road travel is generally to be conducted with low-ground-pressure vehicles unless otherwise approved by the BLM AO. Low-ground pressure is defined as vehicles with less than 4 psi ground pressure, or vehicles that have passed the Alaska Department of Natural Resources low-pressure vehicle qualification certification.
- d. All vehicles shall be selected and operated in a manner that eliminates direct impacts on the tundra by shearing, scraping, or excessive compaction. *Note: This provision does not include the use of heavy equipment required during ice road construction; however, heavy equipment would not be allowed on the tundra until conditions in a., above, are met.*
- e. Bulldozing tundra mat and vegetation for the construction of trails or seismic lines is prohibited. Clearing or smoothing drifted snow is allowed to the extent that the tundra mat is not disturbed. Only smooth pipe snow drags would be allowed for smoothing drifted snow.
- f. Ice roads would be designed and located to avoid the most sensitive and easily damaged tundra types, as much as practicable.
- g. Motorized ground vehicle use associated with overland moves, seismic work, and any similar use of heavy equipment shall be minimized within an area that extends 1 mile west or northwest of the bluffs of the Colville River and 2 miles on either side of the Kogosukruk and Kikiakrorak Rivers and tributaries of the Kogosukruk River from April 15 through August 5, with the exception that use shall be minimized in the vicinity of gyrfalcon nests beginning March 15. Such use would remain 0.5 miles from known raptor nesting sites, unless authorized by the AO.
- h. Incidents of damage to the tundra shall be reported to the AO within 72 hours of occurrence. Follow-up corrective actions shall be determined in consultation with and approved by the AO.
- i. The permittee shall provide the BLM with an as-built of all ice roads, snow trails, and ice pads after the infrastructure is completed. Data must be in a Geographic Information System (GIS) format (ESRI shapefiles referencing the North American Datum of 1983).

ROP C-3: Ice Bridges

Objective: Maintain natural spring runoff patterns and fish passage, avoid flooding, prevent streambed sedimentation and scour, protect water quality, and protect stream banks.

Requirement/Standard: Crossing of waterway courses shall be made using a low-angle approach. Crossings that are reinforced with additional snow or ice (“bridges”) shall be removed, breached, or slotted before spring breakup. Ramps shall be removed to the extent possible without damaging stream banks. Ramps and bridges shall be substantially free of soil and debris.

The permittee shall provide to the BLM any ice thickness and water depth data collected at ice road or snow trail stream crossings during the pioneering stage of road and trail construction.

At the end of operations in the spring, the permittee shall provide the BLM with photographs of all stream crossings that have been removed, breached, or slotted.

ROP C-4: Winter Travel Along Streambeds

Objective: Avoid additional freeze-down of water harboring overwintering fish.

Requirement/Standard: Some travel up and down streambeds would be allowed by the individual vehicles collecting snow from river drifts or ice aggregate from the channel (where ice is grounded). Use of the frozen streambed as the primary ice road or snow trail route is prohibited. Rivers and streams shall be crossed at areas of grounded ice, whenever possible.

ROP C-5: Seismic Surveys Near Fish Habitat

Objective: Minimize the effects of high-intensity acoustic energy from seismic surveys on fish.

Requirement/Standard:

- a. When conducting vibroseis-based surveys above potential fish overwintering areas (water 6 feet deep or greater ice plus liquid depth), permittees shall follow recommendations by Morris and Winters (2005); that is, only a single set of vibroseis shots should be conducted if possible. If multiple shot locations are required, these should be conducted with minimal delay; multiple days of vibroseis activity above the same overwintering area should be avoided, if possible.
- b. When conducting air gun-based surveys in freshwater, permittees shall follow standard marine mitigation measures that are applicable to fish (e.g., MMS 2008³); that is, permittees shall use the lowest sound levels feasible to accomplish their data-collection needs; ramp-up techniques will be utilized (ramp-up involves the gradual increase in emitted sound levels, beginning with firing a single air gun and gradually adding air guns until the desired operating level of the full array is obtained).
- c. When conducting explosive-based surveys, permittees shall follow setback distances from fish-bearing waterbodies, based on requirements outlined by Timothy (2013⁴).

Oil and Gas Exploratory Drilling

ROP D-1: Oil and Gas Exploratory Drilling

Objective: Minimize surface impacts from exploratory drilling.

Requirement/Standard: Construction of permanent oil and gas facilities shall be prohibited for exploratory drilling. Use and minor modification of a previously constructed road or pad may be permitted.

Facility Design and Construction

ROP E-1: Protections for Subsistence Users

Objective: Protect subsistence use and access to subsistence hunting and fishing areas, and minimize potential impacts of development on subsistence resources.

³Minerals Management Service. 2008. Alaska Outer Continental Shelf, Beaufort Sea and Chukchi Sea Planning Areas, Oil and Gas Lease Sales 209, 212, 217, 221. Draft Environmental Impact Statement OCS EIS/EA MMS 2008-0055. U.S. Department of the Interior, Minerals Management Service, Alaska OCS Region.

⁴Timothy, J. 2013. Alaska Blasting Standard for the Proper Protection of Fish. Alaska Department of Fish and Game, Technical Report No. 13-03, Douglas.

Requirement/Standard: All roads must be designed, constructed, maintained, and operated to minimize environmental impacts and to allow for subsistence use and access to subsistence use areas.

- a. Subsistence pullout and access/egress ramps shall be incorporated into future project design and construction in adequate numbers and at appropriate locations on all roads to facilitate access to subsistence use areas. Prior to constructing a road, permittees shall gather input from communities (tribe, village ANCSA corporation, and city) regarding the number and location of pullouts and associated access ramps. Permittees shall post the locations of the ramps publicly and provide a mechanism for local community members to comment on the location of the ramps. The AO may require “hardening” of the tundra around the bottom of the ramps to prevent damage from summer use.
- b. Permittees shall construct subsistence pullouts and boat ramps at crossings of important subsistence rivers and streams as determined by consultation with the affected community. The AO may waive this requirement where boat access is not possible at the crossing or if consultation with the affected community determines that a boat ramp is not useful at that location.
- c. Permittees must allow subsistence use of permanent gravel roads and appropriate ice roads, consistent with safe operations. Permittees shall provide communities and the BLM with concise policies regarding use of all roads and hunting prohibitions, if any, along the roads and near facilities. Permittees shall ensure that any road use guidelines and updated road maps are disseminated throughout the communities, including making them available online and through social media. Permittees shall include a presentation on road use policies in employee orientations, shall ensure that subcontractors have the policy for their employee orientation, and shall maintain copies of the policies at security stations and safety checkpoints.
- d. Before ice road construction begins, the permittee shall post copies of maps of that winter’s ice roads and make them readily available online. The permittee shall also offer to the nearest affected community(s) a meeting to discuss routes; the permittee shall notify the BLM at least 1 week prior to any such meeting.

ROP E-2: Infrastructure Siting Near Waterbodies

Objective: Protect fish-bearing waterbodies, water quality, and aquatic habitats.

Requirement/Standard: Permanent infrastructure, except essential pipeline and road crossings, is prohibited within 500 feet of the ordinary high water mark of fish-bearing waterbodies (also refer to **Stipulation K-1** and **Stipulation K-2**).

Construction camps are prohibited on frozen lakes and river ice. Where leveling of trailers or modules is required and the surface has a vegetative mat, leveling shall be accomplished through blocking rather than use of a bulldozer.

ROP E-3: Shoreline Infrastructure

Objective: Maintain free passage of marine and anadromous fish, protect shorebird staging and feeding areas, and protect subsistence use and access to subsistence hunting and fishing.

Requirement/Standard: Linear infrastructure that connects to the shoreline (e.g., causeways and docks) is prohibited in river mouths or deltas. Artificial gravel islands and permanent bottom-founded structures are prohibited in river mouths or active stream channels on river deltas. In areas where it is permissible, linear infrastructure that connects to the shoreline shall be designed to ensure free passage of marine and anadromous

fish and to prevent significant changes to nearshore oceanographic circulation patterns and water quality characteristics. The BLM will require submittal of a minimum of 2 years of site-relevant data on fish, circulation patterns, and water quality before approving a permit for construction. If such data do not exist, the permittee may be required to gather these data. A post-construction monitoring program, developed in consultation with appropriate federal, State, and NSB regulatory and resource agencies, shall be required to track circulation patterns, water quality, and fish movements around the structure.

ROP E-4: Minimize Development Footprint

Objective: Minimize impacts of the development footprint.

Requirement/Standard: Facilities would be designed and located to minimize the development footprint and impacts. Issues and methods that are to be considered include:

- a. Using extended-reach drilling whenever practical for production drilling to minimize the number of pads and the network of roads between pads
- b. Considering sharing of facilities and infrastructure with existing developments
- c. Collocating other oil and gas facilities with drill pads when feasible. Exceptions would generally include airstrips, docks, existing base camps, and saltwater treatment plants.
- d. Using gravel-reduction and gravel-recovery technologies (e.g., insulated or pile-supported pads, and use of geotextile under gravel pads)
- e. When possible, locating facilities and other infrastructure outside areas identified as important for wildlife habitat, subsistence uses, and recreation. These areas would be identified during the project permitting phase through consultation with federal, State, and local agencies as well as consultation with appropriate Alaska Native organizations.
- f. Optimize the size of gravel pads to balance storage space against the need to minimize aircraft traffic.

ROP E-5: Stream Crossing Design

Objective: Ensure the passage of fish at stream crossings and reduce the potential for ice-dam flooding, impacts on wetlands and floodplains, erosion, and alteration of natural drainage patterns.

Requirement/Standard: Stream and marsh crossings shall be designed and constructed to ensure free passage of fish, reduce erosion, maintain natural drainage, and minimize adverse effects on natural streamflow.

- a. To allow for sheet flow and floodplain dynamics and to ensure passage of fish and other organisms, bridges are preferred over culverts. However, culverts may be permitted on smaller streams, if they are large enough to avoid restricting fish passage or adversely affecting natural streamflow.
- b. The BLM will require fish sampling at any stream crossing where flow is channelized. The permittee may be required to gather these data, or this requirement may be waived if an acceptable dataset already exists and is approved by the AO. Alternatively, the permittee may assume fish presence and design accordingly.
- c. Stream and marsh crossings are to be designed on at least 1 year of relevant hydrologic data.
- d. To ensure that crossings provide for fish passage, all proposed crossing designs would adhere to the standards outlined in fish passage design guidelines developed by the USFWS Alaska Fish Passage Program (USFWS 2019⁵), USFWS Culvert Design Guidelines for Ecological Function (USFWS

⁵U.S. Fish and Wildlife Service. 2019. Fish Passage Design Guidelines. U.S. Fish and Wildlife Service Alaska Fish Passage Program. March 21, 2019.

2020⁶), and Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings (USFWS 2008⁷).

- e. The crossing structure design shall account for permafrost, sheet flow, additional freeboard during breakup, and other unique conditions of the arctic environment.

ROP E-6: Road and Pipeline Design

Objective: Minimize disruption of caribou movement and subsistence access.

Requirement/Standard: Pipelines shall be designed to allow free movement of caribou and safe, unimpeded subsistence access. Listed below are the accepted design practices:

- a. Aboveground pipelines shall be elevated a minimum of 7 feet, as measured between the ground and lowest point of the pipeline between vertical support members (VSMs) (lowest point may be the bottom of the lowest hanging vibration dampener; Lawhead et al. 2006⁸).
- b. A minimum distance of 500 feet between pipelines and roads shall be maintained. Separating roads from pipelines may not be feasible within narrow land corridors between lakes and where pipelines and roads converge on a drill pad. Where it is not feasible to separate pipelines and roads, alternative pipeline routes, designs, and possible burial within the road will be considered by the AO.
- c. Aboveground pipelines shall have a nonreflective finish.
- d. When laying out oil and gas field developments, permittees shall orient infrastructure to minimize impeding caribou migration and to avoid corralling effects.
- e. As part of the permitting process for construction of permanent facilities, the permittee shall submit for the BLM's consideration studies or information describing caribou movement for the impacted herd.

ROP E-7: Sand and Gravel Mining

Objective: Minimize the environmental impacts of mining sand and gravel.

Requirement/Standard: Mine site design and reclamation shall comply with a plan reviewed and approved by the AO. The permittee shall coordinate during the plan preparation with other federal, State, and local agencies having jurisdiction.

- a. The plan shall consider locations outside the active floodplain.
- b. The plan shall incorporate as much as practicable the storage and reuse of sod/overburden for the mine site or at other disturbed sites on the North Slope.
- c. Removal of greater than 100 cubic yards of bedrock outcrops, sand, and/or gravel from cliffs is prohibited.

⁶ _____. 2020. Culvert Design Guidelines for Ecological Foundations. U.S. Fish and Wildlife Service Alaska Fish Passage Program. February 5, 2020.

⁷ _____. 2008. Stream Simulation: An Ecological Approach to Providing Passage for Aquatic Organisms at Road-Stream Crossings. National Technology and Development Program. 7700—Transportation Management 0877 1801-SDTDC. August 2008. San Dimas, California.

⁸Lawhead, B. E., J. P. Parrett, A. K. Prichard, and D. A. Yokel. 2006. A literature review and synthesis on the effect of pipeline height on caribou crossing success. BLM Alaska Open-File Report 106, U.S. Department of the Interior, Bureau of Land Management, Fairbanks. 96 pp.

- d. Any extraction of sand or gravel from an active river or stream channel must be preceded by a hydrological study that describes impacts on streamflow, fish, turbidity, and the integrity of the river bluffs, if present.
- e. Mine pit design and methods shall be engineered to minimize permafrost regime disturbance and protect surface stability.
- f. Geotechnical data collected for materials source reconnaissance (gravel exploration) shall be submitted to the BLM.

ROP E-8: Facility Visibility Requirements

Objective: Minimize bird collisions with infrastructure, especially during migration and inclement weather.

Requirement/Standard: Flagging of structures, such as elevated utility lines and guy wires, shall be required to minimize bird collision. All facility external lighting, during all months of the year, shall be designed to direct artificial exterior lighting inward and downward or be fitted with shields to reduce reflectivity in clouds and fog conditions, unless otherwise required by the Federal Aviation Administration.

ROP E-9: Protections for Certain Bird Species with Special Status

Objective: Minimize impacts on bird species, particularly those listed under the ESA and BLM special status species, resulting from direct or indirect interaction with infrastructure.

Requirement/Standard: Bird species with special status are protected under **ROP E-8** and **ROP E-15**, and by the protections outlined below. In accordance with the guidance below, before the approval of infrastructure construction, the following studies shall be conducted, and recommended design elements shall be incorporated.

Special Conditions in Spectacled and/or Steller's Eiders Habitats

- a. The BLM will require submittal of a minimum of 3 years of site-relevant survey data before authorization of construction, if such construction is within spectacled and Steller's eider habitats, as defined by the area contained within the USFWS Arctic Coastal Plain Aerial Waterbird Breeding Population Survey area or the Barrow Triangle Steller's Eider Survey area. The BLM will evaluate adequacy of survey data and ecological mapping (as required under **ROP E-10**) to determine if ground-based nest surveys are required. If required, spectacled and/or Steller's eider ground nest surveys shall be conducted, following accepted BLM protocol. Information gained from these surveys shall be used to make infrastructure siting decisions, as discussed in subparagraph "b," below. Data shall be transmitted to the BLM in a GIS format (ESRI shapefiles referencing the North American Datum of 1983).
- b. If spectacled and/or Steller's eiders are determined to be present within the proposed development area, the applicant shall work with the USFWS and the BLM early in the design process to site roads and infrastructure in order to minimize impacts on nesting and brood-rearing eiders and their habitats. Such consultation shall address timing restrictions and other temporary mitigating measures, location of permanent infrastructure, placement of fill, alteration of eider habitat, aircraft operations, and management of noise levels.

Special Conditions in Yellow-billed Loon Habitats:

The permittee shall determine and submit to the BLM information on the presence of yellow-billed loon habitat within a project area, using the most current data and analysis results from research conducted within the NPR-A.

- c. If yellow-billed loon habitat is determined to be present within the project area, the BLM will require submittal of a minimum of 3 years of site-relevant survey data of lakes greater than 25 acres within 1 mile of the proposed infrastructure. If required, surveys along shorelines of lakes shall be conducted, following accepted BLM protocol, during nesting in late June and during brood rearing in late August.
- d. The design and location of infrastructure must be such that disturbance is minimized. The default standard mitigation shall be a minimum 0.5-mile buffer around all recorded nest sites and shall be up to 1 mile, where feasible. Lakes with yellow-billed loon occupancy shall also include a minimum 1,625-foot buffer around the shoreline. Development would generally be prohibited within buffers. The BLM would consider waivers or modifications to this requirement if no other feasible option exists.

ROP E-10: Use of Ecological Mapping or Equivalent

Objective: Use ecological mapping (or equivalent approach) as a tool to assess fish and wildlife habitat before development of permanent infrastructure to conserve important habitat types, including BLM sensitive plant species and habitat for BLM sensitive animal species.

Requirement/Standard: The permittee shall submit an ecological land classification map (or similar instrument) of the development area as part of the permitting process for infrastructure construction. The map would integrate geomorphology, soils, surface form, and vegetation (including sensitive plant species and habitat for sensitive wildlife species) at a scale, level of resolution, and level of positional accuracy adequate for detailed analysis of development alternatives. A separate map shall be developed displaying detailed water flowlines and small-scale delineation of drainage catchments. BLM will use these maps and related information to determine the need for BLM or the permittee to conduct any additional ground-based assessments before approval of the exact infrastructure location and infrastructure construction.

ROP E-11: Protections for Cultural Resources

Objective: Protect cultural and paleontological resources.

Requirement/Standard: Permittees shall conduct a cultural and paleontological resources survey prior to any ground-disturbing activity. Primary investigators overseeing cultural surveys must meet the Secretary of the Interior's professional qualification standards for qualified professional archaeologists (36 CFR 61, Appendix D). Upon discovering a potentially undocumented cultural or paleontological resource, the permittee or their designated representative shall notify the AO and suspend all operations in the immediate area of the discovery until the AO issues a written authorization to proceed. Permittees shall avoid any identified cultural and paleontological sites by a minimum of 500 feet from the site boundary.

ROP E-12: Visual Resources Management

Objective: Manage permitted activities to meet Visual Resource Management class objectives.

Requirement/Standard: At the time of application for construction of permanent facilities, the permittee shall submit a plan for approval by the AO to best minimize visual impacts, consistent with the Visual Resource

Management class for the lands on which facilities would be located. A photo simulation of the proposed facilities may be a necessary element of the plan.

Visual Resource Management classes:

- a. Class II—Wainwright Inlet and those areas where new infrastructure is not allowed
- b. Class III—Except for those areas designated as Visual Resource Management Class II, rivers and lands within 3 miles of segments of rivers identified as eligible for Wild and Scenic River designation; also Kasegaluk Lagoon, Peard Bay, Elson Lagoon, Dease Inlet, and Admiralty Bay and lands within 3 miles of those waterbodies
- c. Class IV—The rest of the NPR-A

ROP E-13: Protection for Nesting Steller's and Spectacled Eiders in the Barrow Triangle Area

Objective: Avoid and reduce temporary impacts on productivity from disturbance near Steller's and spectacled eider nests within the Barrow Triangle area.

Requirement/Standard: Ground-level activity (by vehicle or on foot) within 660 feet of occupied Steller's or spectacled eider nests, from June 1 through July 31, would be restricted to existing thoroughfares, such as pads and roads. Construction of permanent facilities, placement of fill, alteration of habitat, and introduction of high noise levels within 660 feet of occupied Steller's or spectacled eider nests would be prohibited. In instances where summer support/construction activity must occur off existing thoroughfares from June 1 through July 31, USFWS-approved nest surveys must be conducted during the approved survey window prior to the BLM approval of the activity. Collected data would be used to evaluate whether the action could occur, based on deployment of a 660-foot buffer around nests, or if the activity would be delayed until after mid-August, once ducklings are mobile and have left the nest site.

Permittees are encouraged to work outside the eider nesting window throughout the NPR-A.

ROP E-14: GIS Files for Proposed Infrastructure

Objective: Provide information to be used in monitoring and assessing wildlife movements during and after construction.

Requirement/Standard: During the planning and permitting phase for new infrastructure, the permittee shall provide in a GIS format (ESRI shapefiles referencing the North American Datum of 1983) files of proposed footprint locations, followed by shapefiles of all new infrastructure footprints within 6 months of construction completion. Infrastructure includes all gravel roads and pads, facilities built on pads, pipelines, and independently constructed power lines (as opposed to those incorporated in pipeline design). Gravel pads would be included as polygon features. Roads, pipelines, and power lines may be represented as line features but must include ancillary data to denote such data as width and number of pipes. Poles for power lines may be represented as point features. Ancillary data will include construction beginning and ending dates.

ROP E-15: Aboveground Utility Design

Objective: Minimize the impacts on bird species from direct interaction with aboveground utility infrastructure.

Requirement/Standard:

- a. To reduce the possibility of birds colliding with aboveground utility lines (power and communication), such lines would either be buried in access roads or would be suspended on VSMs. Exceptions are limited to the following situations:
 - i. Overhead power or communication lines may be allowed when located entirely within the boundaries of a facility pad.
 - ii. Overhead power or communication lines may be allowed when engineering constraints at the specific and limited location make it infeasible to bury or connect the lines to a VSM.
 - iii. Overhead power or communication lines may be allowed in situations when human safety would be compromised by other methods.
- b. To reduce the likelihood of birds colliding with them, communication towers would be located, to the extent practicable, on existing pads and as close as possible to buildings or other structures and on the east or west side of buildings or other structures, if possible. Support wires associated with communication towers, radio antennas, and other similar facilities would be avoided to the extent practicable. If support wires are necessary, they would be clearly marked along their entire length to improve visibility to low-flying birds. Such markings would be developed through consultation with the USFWS.
- c. Design of other utility infrastructure, such as wind turbines, would be evaluated under a specific development proposal.
- d. The permittee shall comply with current industry-accepted practices for raptor protection on power lines, such as the most recent Avian Power Line Interaction Committee suggested practices.

ROP E-16: Protections for Nesting Falcons

Objective: Minimize disturbance to nesting falcons.

Requirement/Standard:

- a. To reduce disturbance from campsite activity to nesting falcons, campsites authorized by the BLM, including short- and long-term camps and agency work camps, shall be located at least 1,640 feet from any known falcon nest site. Exceptions may be granted by the AO through the normal permitting process.
- b. All users authorized by the BLM, including BLM and other agency personnel, shall submit for approval an operational plan that includes dates, locations, and schedule of visits to cliff sites, when dates are between April 15 and August 1. Permittees shall follow the guidelines for conducting activities near falcon nests.
- c. Off-road foot or vehicle traffic, construction, and nonemergency hazardous material or solid waste cleanup shall be prohibited within 1 mile of known arctic peregrine and gyrfalcon nests from April 15 through August 1. Nonemergency cleanup refers to remediation of old sites, such as removal of drums or soil that have been contaminated for longer than 1 year.

Use of Aircraft for Permitted Activities

ROP F-1: Aircraft Use Plan

Objective: Provide aviation data required for BLM management, for ESA consultation with the USFWS and NMFS, and to minimize impacts on subsistence activities and wildlife.

Requirement/Standard: Permittees shall submit an aircraft use plan at least 60 days prior to permitted activities. The plan shall include the following elements:

- a. The estimated number of anticipated flights, as defined by a single takeoff and landing, including the estimated number that will occur north of 70 degrees North latitude (to allow for programmatic ESA consultation). The number of takeoffs and landings should be limited to the maximum extent practicable. During the design of proposed infrastructure projects, larger landing strips and storage areas should be considered to allow the use of larger aircraft.
- b. Types of aircraft, including tail numbers of aircraft (as early as possible and prior to use), and description of any unmanned aircraft use
- c. Strategies to coordinate daily aircraft use with the aviation community and local subsistence users
- d. Methods of monitoring and reporting flights. The AO may require adjustments to the aircraft use plan, based on the results of the monitoring.

Strategies to comply with **ROPs F-2 and F-3**, and **Stipulations K-6, K-7, K-8, and K-11**, as applicable.

ROP F-2: Minimum Flight Altitudes

Objective: Minimize the effects of low-flying aircraft on wildlife, subsistence activities, and local communities.

Requirement/Standard: Except for takeoffs and landings, manned aircraft flights for permitted activities (fixed-wing and helicopters, unless specified) shall maintain a 1,500-foot minimum altitude agl unless doing so would endanger human health and safety or violate safe flying practices, or if the purpose of the flight requires constant sight of the ground, such as sighting of wildlife or for archaeological or engineering survey flights or ice road planning and cleanup. Exceptions to the 1,500-foot agl minimum altitude are listed below:

- a. Single-engine manned aircraft and unmanned aircraft systems devices should not knowingly fly within 0.5 miles of walrus haul-outs; or, if required, then maintain 2,000 feet agl when within 0.5 miles of walrus haul-outs.
- b. Helicopters and multi-engine aircraft should not knowingly fly within 1 mile of walrus haul-outs; or, if required, then maintain 3,000 feet agl and a 1-mile buffer from walrus haul-outs.
- c. Aircraft—3,000 feet agl when within 1 mile of aggregation of marine mammals listed under the Endangered Species Act as threatened or endangered.

The BLM will provide maps and data of the areas listed above.

ROP F-3: Reduce Impacts of Air Traffic on Subsistence Resources

Objective: To reduce the impacts of aircraft traffic on North Slope subsistence hunters.

Requirement/Standard:

- a. Hazing of wildlife by aircraft is prohibited. Pursuit of running wildlife is hazing. If wildlife begins to run as an aircraft approaches, the aircraft is too close and must break away.
- b. Minimize (consistent with operational efficiency and safety) helicopter flights during peak caribou hunting within 2 miles of important subsistence rivers.* Pay particular attention to limiting helicopter traffic during this time to flight corridors that minimize impact (e.g., perpendicular crossings upstream of cabins). The current peak dates are July 15 through August 15, but these dates may be revised from

time to time in consultation with affected communities and the NSB Department of Planning and Department of Wildlife Management.

- c. Minimize aircraft use near known subsistence camps and cabins and during sensitive subsistence hunting periods (spring goose hunting, summer and fall caribou and moose hunting) by adhering to the following guidelines:
 - i. Arrange site visits and flight schedules to conduct required activity near subsistence areas early in the season, on weekdays, and as early in the morning as possible; avoid holidays.
 - ii. Note whether activities overlap important subsistence rivers and determine if a potentially affected community's tribal or city office should be notified.
 - iii. Compare the proposed landing sites with the NSB camps and cabins map files available from the BLM Arctic District Office. If activities near camps or allotments cannot be avoided, contact the camp or allotment owner to discuss the timing of the visit.

*Important subsistence rivers are as follows. This list may be adjusted by the BLM in consultation with the affected community:

- Colville, Ublutuoch, Fish, and Judy Creeks (Nuiqsut)
- Utukok, Kokolik, and Kukpowruk (Point Lay)
- Kuk and tributaries (Kaolak, Ketik, Avalik, Ivisaruk, and Kungok), Kugrua (Wainwright)
- Meade, Nigisaktugvik, and Isiqtuq (Atqasuk)
- Inaru, Topagaruk, Chipp, Ikpihpuk, Miguakiak, and Piasuk (Utqiagvik)

Minimize Subsistence Impacts from Permitted Activities

ROP H-1: Subsistence Plan

Objective: Prevent unreasonable conflicts with subsistence.

Requirement/Standard: The permittee shall submit a subsistence plan; the AO may waive this requirement for minimally impactful activities or projects that do not impact subsistence activities of any community. The plan should be submitted as early as possible, and no later than an application submitted to the BLM. The plan will include:

- a. A brief summary of the proposed activity, focusing on details relevant to subsistence, including the use of aircraft
- b. In accordance with **ROP H-4**, a detailed description of the efforts made by the permittee to consult with directly affected subsistence communities, appropriate Native organizations, working groups, and the NSB, and how their input was considered or incorporated
- c. A description of how the activity, in combination with other activities in the area, would be scheduled and located to prevent conflicts with subsistence activities
- d. Procedures to facilitate access by subsistence users to the permittees' area of activity or appropriate facilities
- e. A description of how the permittee would address potential subsistence issues
- f. An explanation of how the activity's effects on subsistence activities would be documented and how that documentation would be made available

- g. The names and contact information for subsistence representatives, project points of contact, and community liaisons. (This information should be available by the time an application is submitted to the BLM. If this information is not available when the plan is produced, the plan will include the date that it would be available and explain how the applicant would make that information available.)
- h. A description of how the plan would be updated, if necessary, during the course of review and consultation
- i. Information on how the permittee would keep potentially affected individuals and communities up-to-date on the progress of the activities and locations of possible, short-term conflicts with subsistence activities; such communication methods could include posting information on a website and distributing the link, social media, newsletters and radio and television announcements, community meetings, or workshops.

ROP H-2: Notification and Coordination with Private Property Owners

Objective: Prevent unreasonable conflicts with subsistence access and activities by providing opportunities for coordination and incorporating input into project plans.

Requirement/Standard: Permittees shall notify Native allotment owners in writing (via email or hard copy) of any proposed project within 20 miles of a Native allotment in the NPR-A. A database of allotments and owners is maintained by the NSB or Bureau of Indian Affairs. Permittees shall offer coordination with interested allotment owners and inform the BLM of the results of that coordination. This requirement may be waived for minimally impactful activities.

Permittees conducting geophysical (seismic) exploration shall:

- a. Notify and offer individual coordination with potentially affected allotment, camp, and cabin owners.
 - i. The official recognized list of subsistence-use cabins and campsite users is the NSB's most current inventory of cabins and campsites, which have been identified by the subsistence users' names.
 - ii. For the purpose of this standard, a potentially affected site is defined as any allotment, camp, or campsite located within the boundaries of the area proposed for geophysical exploration or within 1 mile of travel routes used to supply seismic operations.
 - iii. The AO would prohibit seismic work within 1 mile of these sites, unless an alternative agreement is reached between the site owner and the permittee.
 - iv. Provide local search and rescue organizations with proposed seismic survey locations before the operational season, and during operations, of the current location on a weekly basis; this notification should include a map indicating the current extent of surface use and occupation and areas previously used and occupied during the course of the operation; this would enable hunters to plan their hunting trips and access routes accordingly.

ROP H-3: Hunting, Fishing, and Trapping by Permittees

Objective: Minimize potential impacts on hunting, trapping, and fishing species and on subsistence harvest of those animals consistent with requirements of the Alaska National Interest Lands Conservation Act.

Requirement/Standard: Hunting, trapping, and fishing by the permittee's employees, agents, and contractors is prohibited when persons are on "work status." Work status is defined as the period during which an individual is under the control and supervision of an employer. Work status is terminated when the individual's shift ends and he/she returns to a public airport or community (e.g., Fairbanks, Utqiagvik,

Nuiqsut, or Deadhorse). Use of permittee facilities, equipment, or transport for personal access or aid in hunting, trapping, and fishing is prohibited.

ROP H-4: Notification and Consultation with Alaska Native Groups

Objective: Prevent unreasonable conflicts with subsistence access and activities by providing opportunities for consultation, and incorporating input into project plans.

Requirement/Standard: For projects that require a subsistence plan (**ROP H-1**), permittees shall prevent unreasonable conflicts with subsistence access, use areas, and schedules by facilitating consultation according to the following guidelines:

- a. Permittees shall provide affected communities early and adequate notice of proposed activities.
 - i. Permittees shall submit the complete subsistence plan (**ROP H-1**) and the proposed plan of operation (or summary thereof) to appropriate North Slope entities at the earliest possible date (and no later than when an application is submitted to the BLM) to allow time for the North Slope entities to determine if the proposed action warrants further consultation.
- b. Permittees shall provide opportunities for affected communities to participate in planning and decision-making and shall solicit and incorporate, as possible, local input on the siting, timing, and methods of the proposed operations. Permittees shall present proposed activities to North Slope entities and to individual tribes and ANCSA corporations as requested. Through this consultation, the permittee shall make every reasonable effort, including such mechanisms as conflict avoidance agreements and mitigating measures, to ensure that proposed activities would not result in unreasonable interference with subsistence activities.
 - i. On any emailed meeting announcements, permittees should carbon copy the BLM.
 - ii. For meetings announced by flyers or other means, the permittees should notify the BLM by email.
 - iii. Permittees shall provide the BLM with a copy of meeting notes within 1 month of the meeting date for all meetings held pursuant to their subsistence plan required in **ROP H-1**.
- c. Permittees that propose barging equipment or supplies to the NPR-A shall notify and coordinate with the Alaska Eskimo Whaling Commission and the appropriate local community whaling captains associations.

ROP H-5: Public Availability of Environmental Data

Objective: Make data and summary reports derived from North Slope studies easily accessible to the public.

Requirement/Standard: Permittees shall submit reports related to permitted activity or required monitoring studies on BLM-managed land. Reports shall be submitted within 2 months of finalization to the BLM Arctic District Office to be posted online, unless otherwise stated in the applicable ROP.

At a minimum, permittees would include all reports related to studies that pertain to the environment on BLM-managed land. Permittees are encouraged to make other research relevant to the community (e.g., research on nonfederal land) accessible in the same manner.

All geospatial data collected by the permittee that are required by the BLM must be submitted to the BLM in a GIS format (ESRI shapefiles referencing the North American Datum of 1983).

The BLM will consider making all data submitted by permittees available to the public. The BLM may grant exceptions for particularly sensitive types of data (e.g., cultural sites and radio-collar locations).

Orientation Programs Associated with Permitted Activities

ROP I-1: Employee Orientation Program

Objective: Minimize cultural and resource conflicts.

Requirement/Standard: All personnel involved in permitted activities shall be provided with information concerning applicable stipulations, ROPs, standards, and specific types of environmental, social, traditional, and cultural concerns that relate to the region. The permittee shall ensure that all personnel involved in permitted activities shall attend an orientation program at least once a year. Elements of the program shall be provided to the AO for review upon request. The proposed orientation program shall include:

- a. Sufficient detail to notify personnel of applicable stipulations and ROPs, as well as inform individuals working on the project of specific types of environmental, social, traditional, and cultural concerns that relate to the region
- b. Address the importance of not disturbing archaeological, paleontological, and biological resources and habitats, including endangered species, fisheries, bird colonies, and marine mammals, and provide guidance on how to identify and avoid disturbance to these resources
- c. Include guidance on the preparation, production, and distribution of information cards on endangered and/or threatened species
- d. Be designed to increase sensitivity and understanding of personnel to community values, customs, and lifestyles in areas in which personnel would be operating
- e. Information concerning avoidance of conflicts with subsistence, commercial fishing activities, and pertinent mitigation
- f. Information for aircraft personnel concerning subsistence activities and areas and seasons that are particularly sensitive to disturbance by low-flying aircraft; of special concern is aircraft use near traditional subsistence cabins and campsites, flights during spring goose hunting and fall caribou and moose hunting seasons, and flights near North Slope communities.
- g. Information that individual training is transferable from one facility to another, except for elements of the training specific to a particular site
- h. On-site records of all personnel who attend the program for as long as the site is active, though not to exceed the 5 most recent years of operations. This record shall include the name and dates(s) of attendance of each attendee.
- i. A module discussing bear interaction plans to minimize conflicts between bears and humans
- j. A copy of 43 CFR 3163 regarding Non-Compliance Assessment and Penalties to on-site personnel
- k. Training designed to ensure strict compliance with local and corporate drug and alcohol policies. This training should be offered to the NSB Health Department for review and comment.

Summer Vehicle Tundra Access

ROP L-1: Tundra Travel

Objective: Protect stream banks and water quality; minimize compaction and displacement of soils; minimize the breakage, abrasion, compaction, or displacement of vegetation; protect cultural and paleontological

resources; maintain populations of and adequate habitat for birds, fish, and caribou and other terrestrial mammals; and minimize impacts on subsistence activities.

Requirement/Standard: Low-ground-pressure vehicles (see definition in **ROP C-2**) may be permitted to travel off of gravel pads and roads during times other than those identified in part “a” of **ROP C-2**. Permission for such use would be granted only after an applicant has completed the following:

- a. Described procedures for route walking ahead of tundra vehicles, including what information will be collected.
- b. Designed and/or modified the use proposal to minimize impacts based on timing to protect ground-nesting birds, and considered shifting work to winter, route selection, and minimizing interactions with wildlife or subsistence activities.
- c. Submitted off-road travel as part of a vehicle use plan for AO approval, except for shorter notice and unforeseen trips; see **ROP M-1**.

See **ROP E-11** for additional requirements to protect cultural and paleontological resources.

General Wildlife and Habitat Protection

ROP M-1: Vehicle Use Plans

Objective: Minimize disturbance and hindrance of wildlife, or alteration of wildlife movement.

Requirement/Standard: Permittees will submit a vehicle use plan with their permit application for approval by the AO. The AO may waive this requirement for minimally impactful activities.

Vehicle use plans will have the following elements:

- a. Following wildlife with ground vehicles is prohibited. Particular attention would be given to avoid disturbing caribou.
- b. The management plan would follow industry practices to minimize or mitigate delays to caribou movement, vehicle collisions, or displacement during calving, spring migration, fall migration, and post-insect aggregation movement.
- c. Summary of all planned off-road travel, including the number of vehicles, type, and general routes
- d. Strategies for complying with **Stipulations K-6, K-7, K-8, K-11**, and **ROP L-1**, if applicable.
- e. Monitoring will be required as part of the vehicle use plan for up to 5 years after road construction. A monitoring plan could include collection of data on vehicle counts and vehicle interactions with wildlife. The AO may require adjustments to the vehicle use plan, based on the results of the monitoring.
- f. Permittees shall provide an annual report to the AO, reporting roadkill of birds and mammals to help the BLM to determine whether preventative measures on vehicle collisions are effective.

ROP M-2: Invasive Species Prevention Plan

Objective: Prevent the introduction, or spread, of nonnative, invasive species in the NPR-A.

Requirement/Standard: Prior to operations in the NPR-A, permittee shall submit a plan for the BLM’s approval detailing the methods for preventing the introduction of invasive plant and animal species. The plan shall include methods for cleaning equipment and vehicles, monitoring for weeds, and weed control. Permittee

shall monitor annually along roads for nonnative, invasive species and initiate effective weed control measures upon evidence of their introduction. See **ROP M-3** for requirements to reduce areas of bare soil.

ROP M-3: Minimize Bare Soil

Objective: Reduce areas of bare soil that can contribute to dust emission to protect human health and subsistence resources.

Requirement/Standard: Areas of bare soil resulting from operations will be revegetated with native species within 48 months of abandonment, unless otherwise specified in the abandonment and reclamation plan.

A.3.3 Lease Notices

Lease Notice 1: Liability for Wildfires

- a. Permittees who start a fire are liable for the costs of wildfire suppression and damages to property and natural resources.
- b. Infrastructure built by permittees on BLM-managed land shall be protected from wildfire, in accordance with the Alaska Remote Structure Protection Policy. The BLM will not be held liable for damages to private property caused by wildfire, regardless of the cause of the fire.

Lease Notice 2: Compliance with the Endangered Species Act

The lease areas may now or hereafter contain plants, animals, or their habitats determined to be threatened or endangered. The BLM may require modifications to exploration and development proposals to further its conservation and management objective to avoid activities it has approved that would contribute to the need to list such a species or designate critical habitat for listed species. The BLM will not approve any activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the ESA, as amended (16 United States Code [USC] 1531 et seq.), including completing any required procedure for conference or consultation.

Lease Notice 3: Reclamation of Land Used for Permitted Activities

In accordance with Onshore Order 1, 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, pipelines, 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.

Lease Notice 4: Compliance with Marine Mammal Protection Act

The lease area and/or potential project areas may now or hereafter contain marine mammals. The BLM may require modifications to exploration and development proposals to ensure compliance with Federal laws, including the Marine Mammal Protection Act (MMPA). The BLM would not approve any exploration or development activity absent documentation of compliance under the MMPA. Such documentation shall consist of a Letter of Authorization, Incidental Harassment Authorization, and/or written communication from USFWS and/or NMFS confirming that a take authorization is not warranted.

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Appendix B

Maps

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Appendix B. Maps

Map 1 Fluid Mineral Leasing

Map 2 Fluid Mineral Leasing, Individual Stipulations

Map 3 New Infrastructure

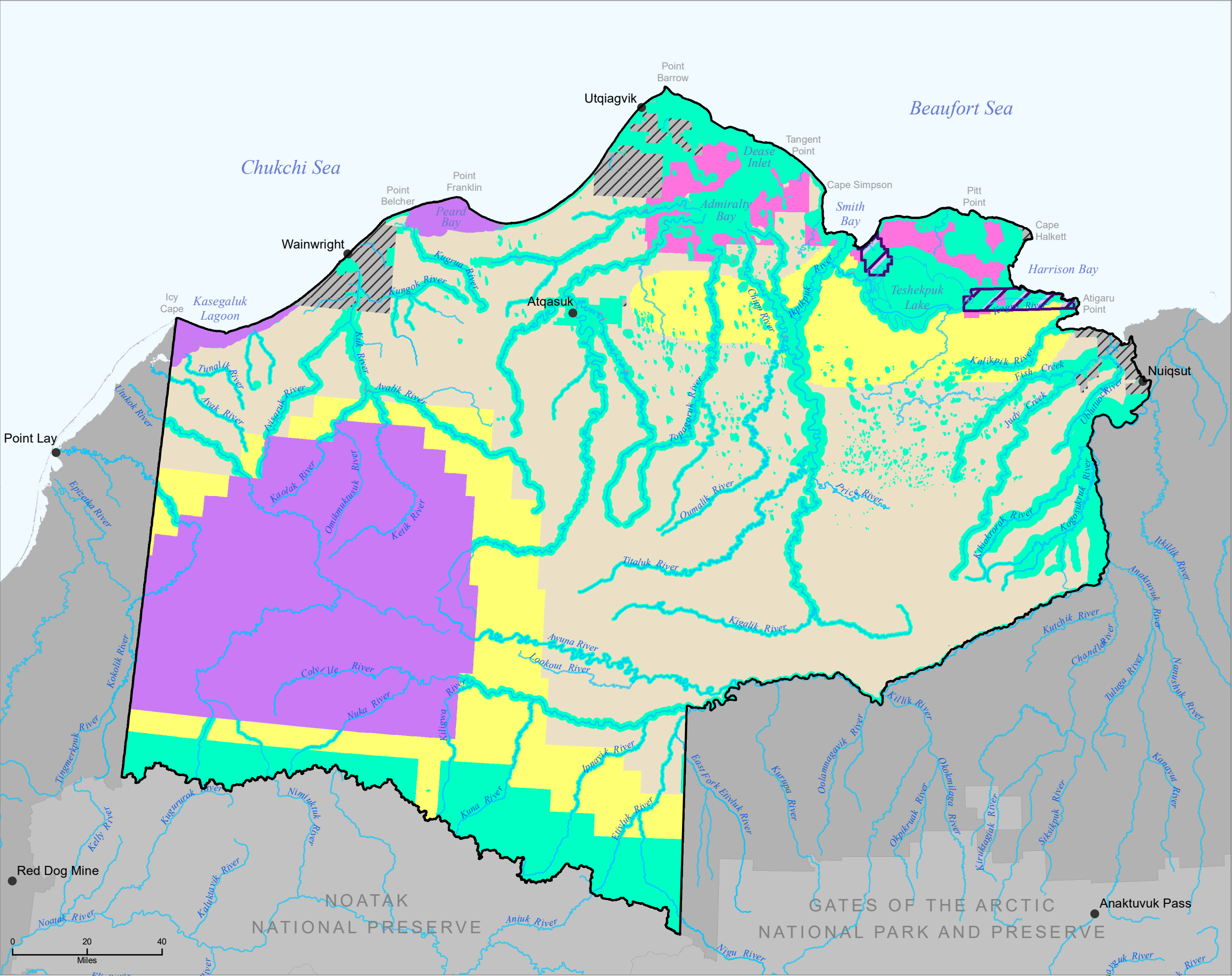
Map 4 New Infrastructure, Individual Restrictions

Map 5 Sand and Gravel Mining

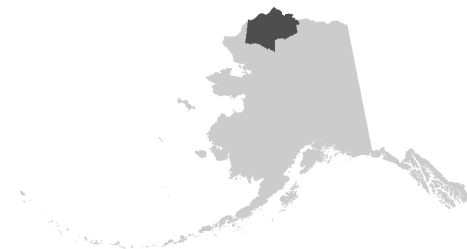
Map 6 Special Areas

Map 7 Visual Resource Management

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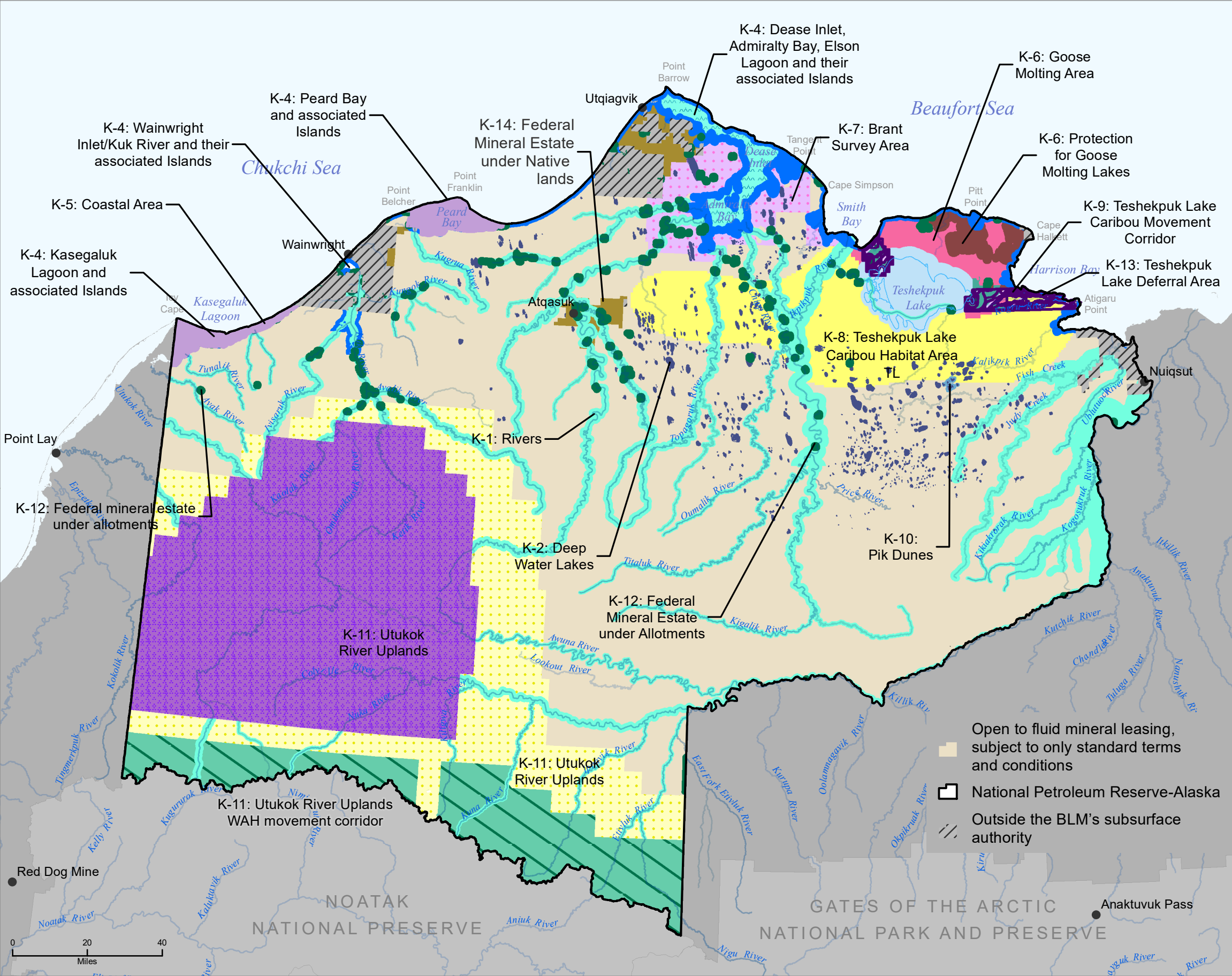
- Closed to fluid mineral leasing
- Open to fluid mineral leasing, subject to no surface occupancy
- Open to fluid mineral leasing, subject to controlled surface use
- Open to fluid mineral leasing, subject to a timing limitation
- Open to fluid mineral leasing, subject to only standard terms and conditions
- Teshekpuk Lake Deferral Area, no leasing for 10 years
- National Petroleum Reserve-Alaska
- Outside the BLM's subsurface authority



Data source: BLM GIS 2019
Print date: 12/21/2020

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.

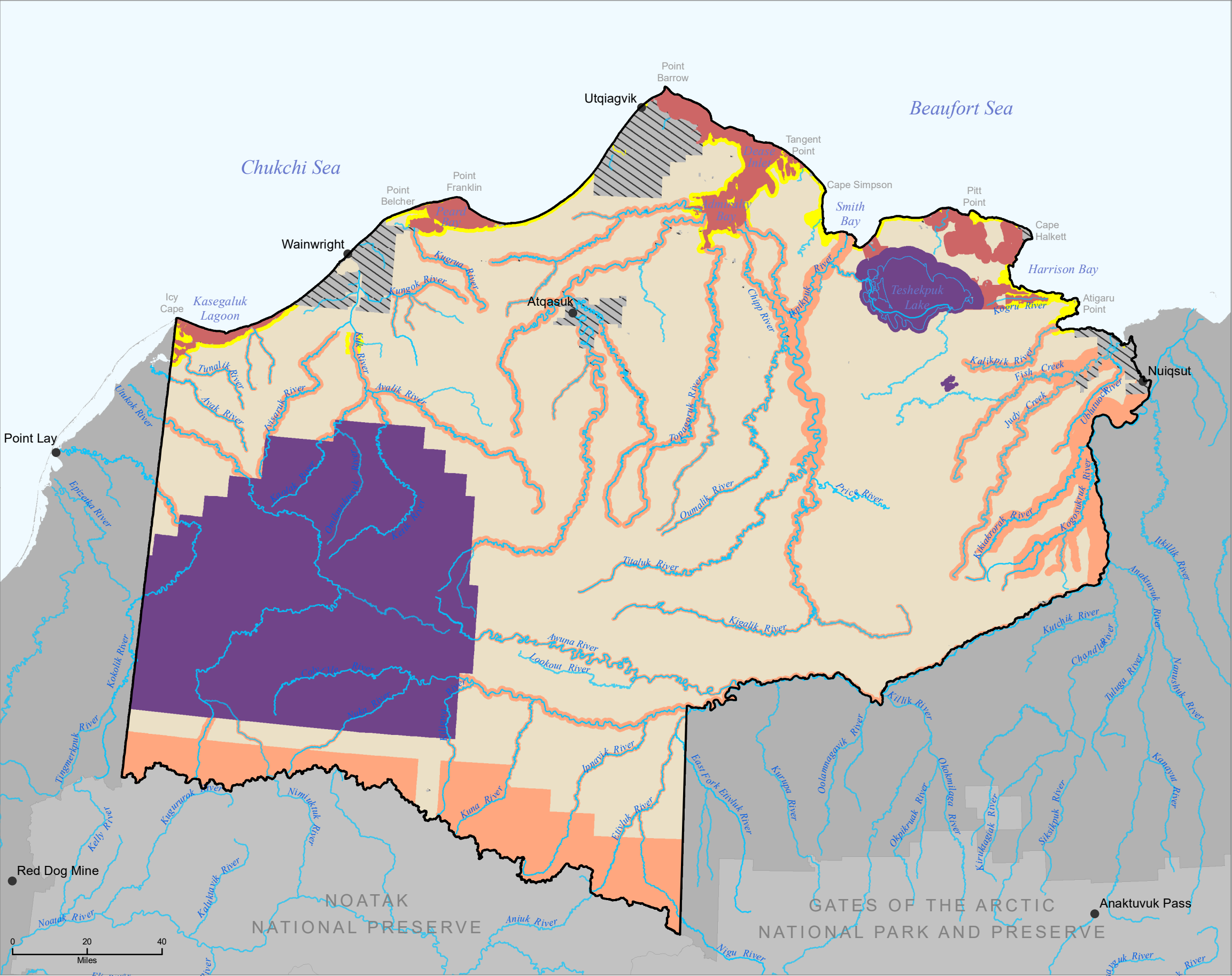
Map 1



- Closed to fluid mineral leasing
- K-4: lagoons, inlets, and associated islands
 - K-11: Utukok River Uplands
 - K-13: Teshekpuk Lake Deferral Area, no leasing for 10 years
- Open to fluid mineral leasing, subject to no surface occupancy (NSO)
- K-1: river setbacks
 - K-2: deep water lakes
 - K-4: lagoons, inlets, and associated islands
 - K-5: coastal area
 - K-6: protection for goose molting lakes
 - K-8: Teshekpuk Lake caribou habitat area
 - K-9: Teshekpuk Lake caribou movement corridor
 - K-10: Pik Dunes
 - K-11: Utukok River Uplands
 - Western Arctic Caribou Herd movement corridor
 - K-12: federal mineral estate under allotments
 - K-14: federal mineral estate under Native lands
- Open to fluid mineral leasing, subject to controlled surface use
- K-6: goose molting area
 - K-7: brant survey area
- Open to fluid mineral leasing, subject to a timing limitation (TL)
- K-8: Teshekpuk Lake caribou habitat area
 - K-11: Utukok River Uplands Special Area
- Open to fluid mineral leasing, subject to only standard terms and conditions
- National Petroleum Reserve-Alaska
 - Outside the BLM's subsurface authority

Data source: BLM GIS 2019
Print date: 12/21/2020

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.

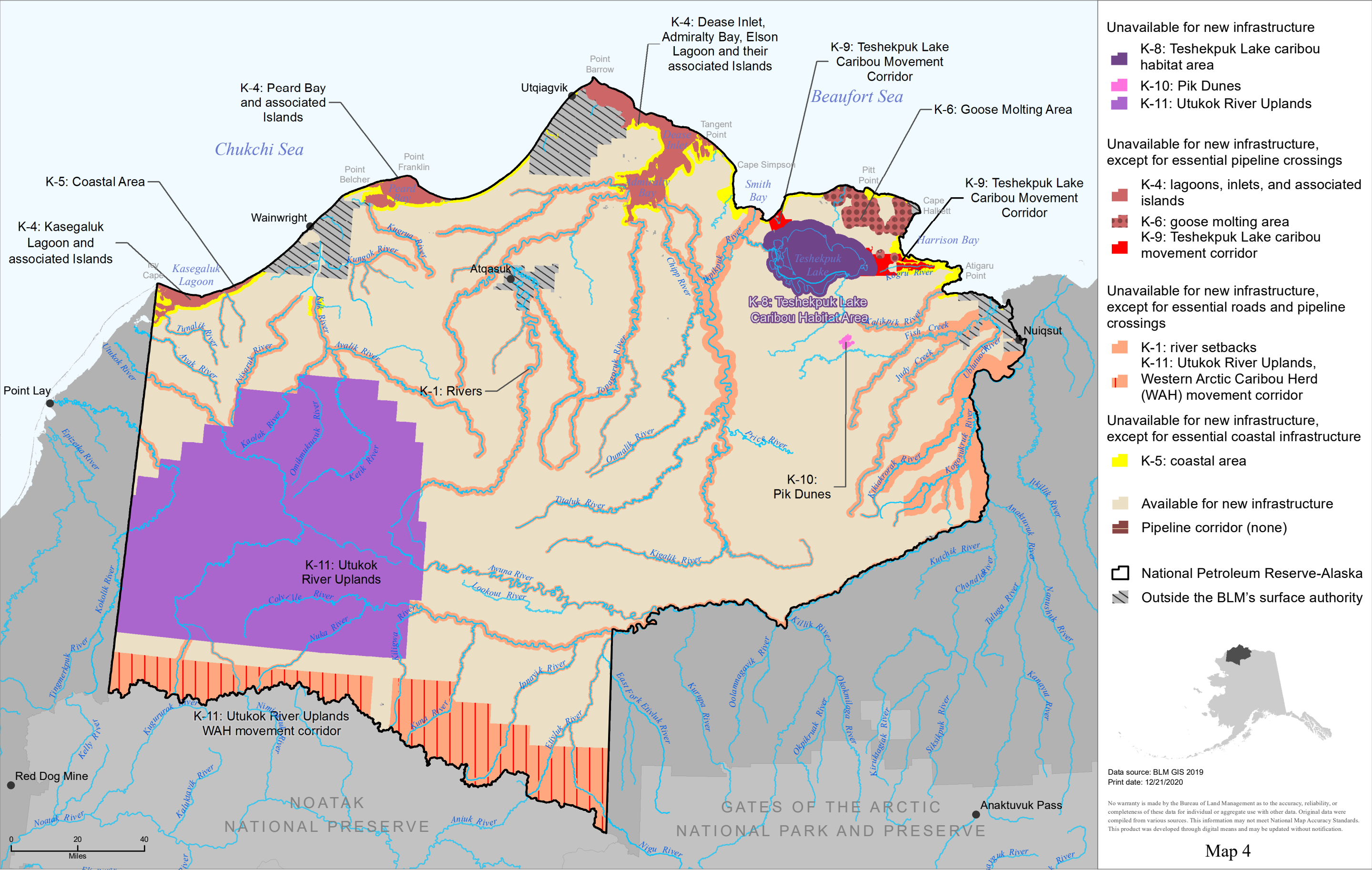


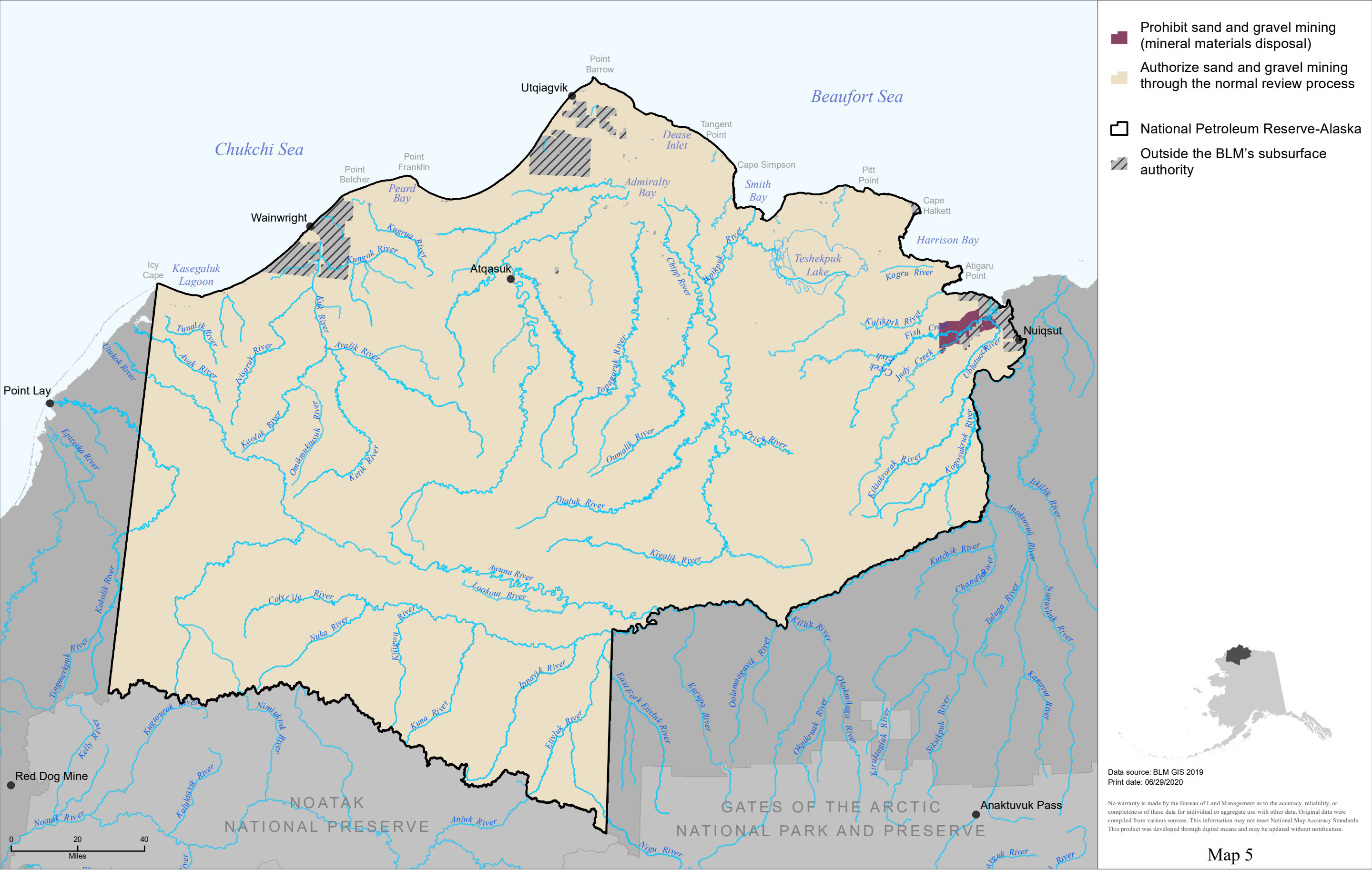
- Unavailable for new infrastructure
- Unavailable for new infrastructure, except for essential pipeline crossings
- Unavailable for new infrastructure, except for essential roads and pipeline crossings
- Unavailable for new infrastructure, except for essential coastal infrastructure
- Available for new infrastructure
- Pipeline corridor (none)
- National Petroleum Reserve-Alaska
- Outside the BLM's surface authority

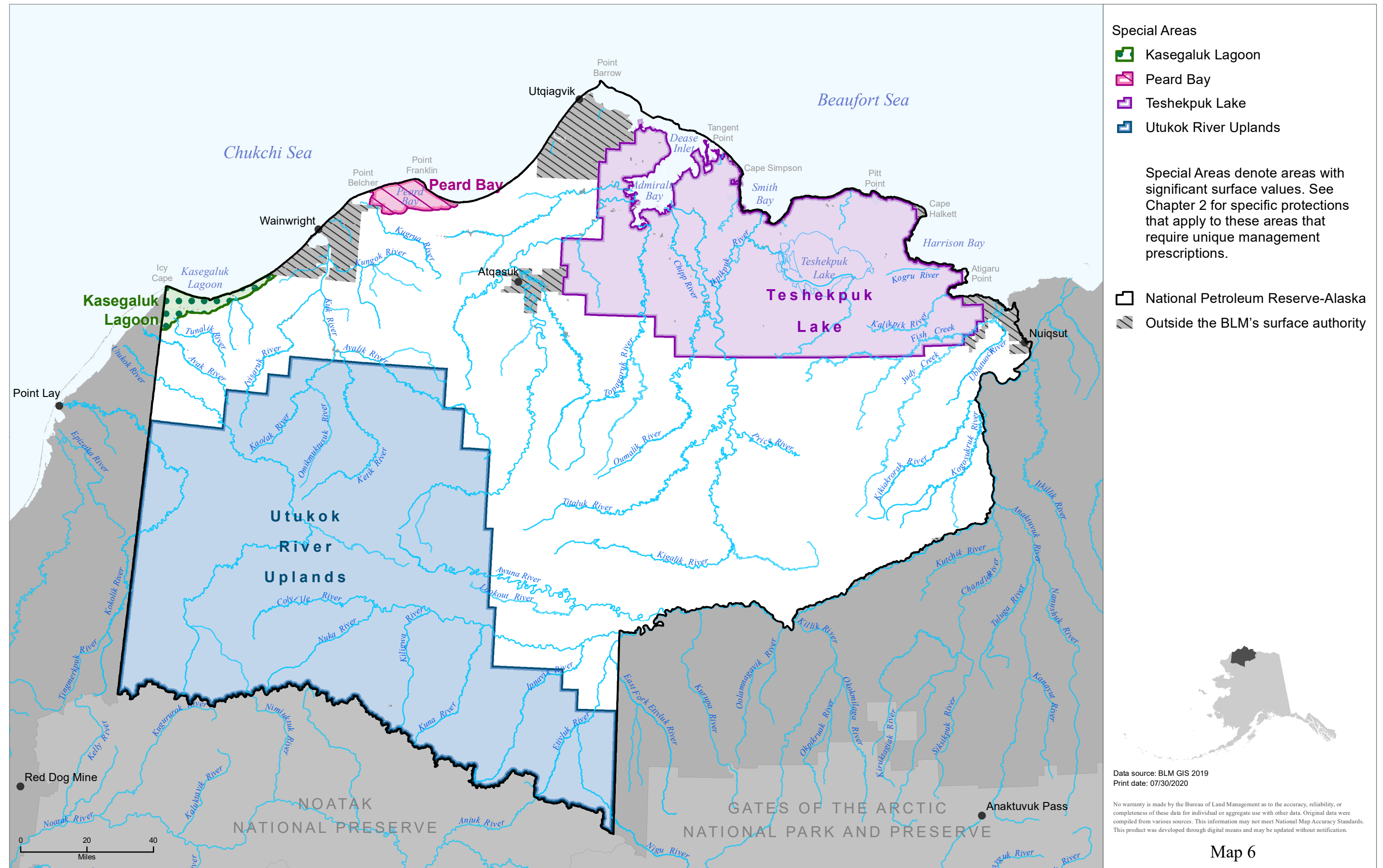
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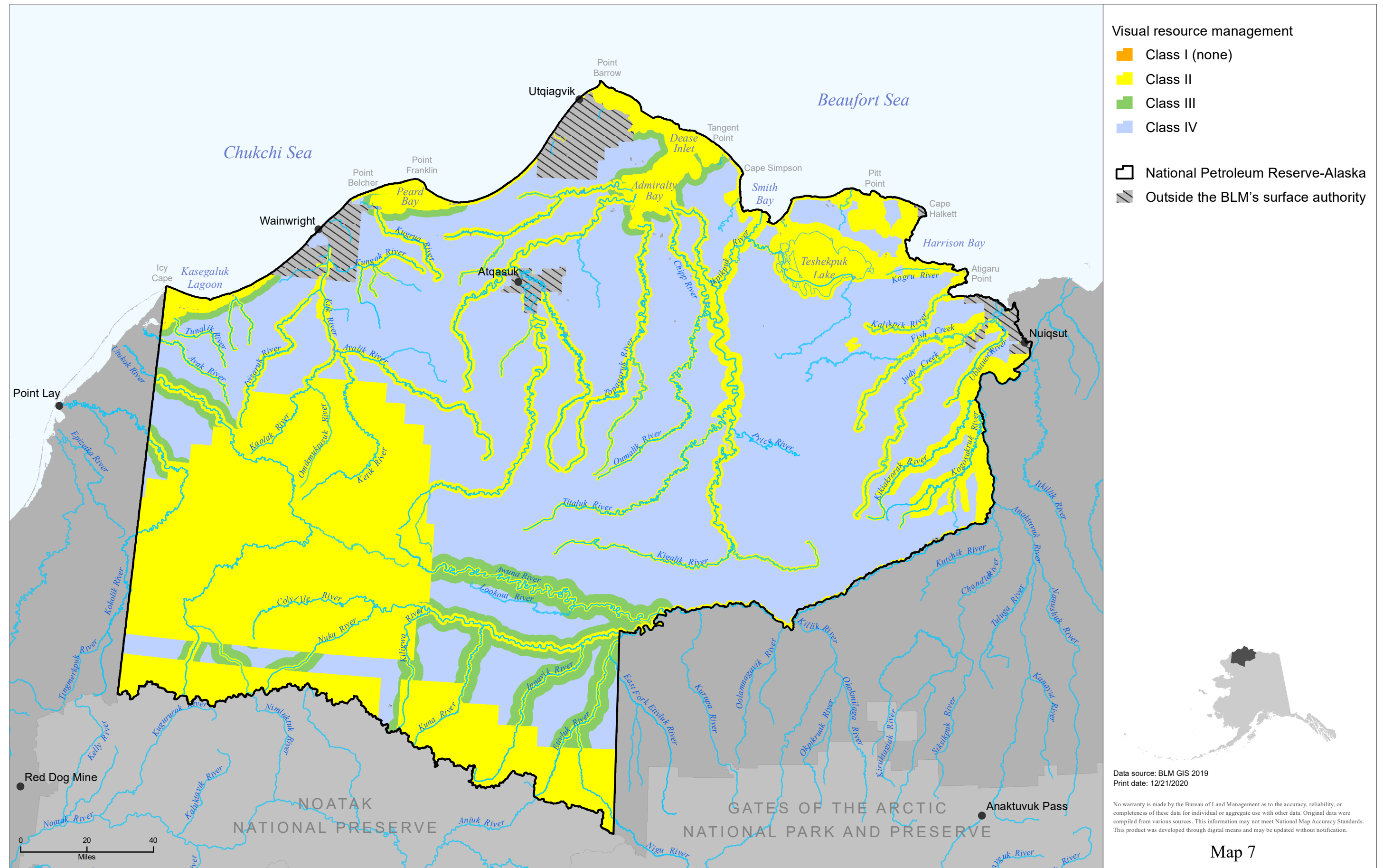
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Map 3









Appendix C

Modifications and Clarifications

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C.1 General.....	C-1

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Appendix C. Modifications and Clarifications

The following describes clarifications and minor modifications that BLM has made in this Decision to the Preferred Alternative presented in the Final IAP/EIS. (Modifications that have been made to correct sentence structure, grammatical errors, sub-paragraph letters, and other non-substantive errors are not discussed below.)

C.1 GENERAL

Substantive changes were made to the following ROPs, stipulations and lease notices:

- K-1: River Setbacks- The Kugrua River was incorrectly listed as having a ½ mile setback in the Preferred Alternative in the Final IAP/EIS. This is corrected to a 1 mile setback in this ROD.
- K-5: Coastal Area Setback- Stellar's sea lions were added to the list of marine mammals requiring a one mile buffer by transiting vessels.
- F-2: Minimum Flight Altitudes- At the request of the National Marine Fisheries Service, the 3,000 ft minimum flight altitude above aggregations of seals was extended to all ESA listed marine mammals.
- Lease Notice 4: Compliance with the Marine Mammal Protection Act- At the request of the US Fish and Wildlife Service, Lease Notice 4 was updated to apply to all projects in the NPR-A.

In addition to the above listed substantive changes, the required operating procedures (ROPs) and lease stipulations were re-numbered to be sequential in the ROD. Below is a complete list of the ROPs and lease stipulation numbers that are different than the Final IAP/EIS:

- K-8: Brant Survey Area from the Final IAP/EIS was renumbered to K-7 in the ROD.
- K-9: Teshekpuk Caribou Herd Habitat Area from the Final IAP/EIS was renumbered to K-8 in the ROD.
- K-10: Caribou Movement Corridor from the Final IAP/EIS was renumbered to K-9 in the ROD.
- K-13: Pik Sand Dunes from the Final IAP/EIS was renumbered to K-10 in the ROD.
- K-14: Utukok River Uplands Special Area from the Final IAP/EIS was renumbered to K-11 in the ROD.
- K-15: Federal Mineral Estate Under Allotments from the Final IAP/EIS was renumbered to K-12 in the ROD.
- K-16: Lease Deferral from the Final IAP/EIS was renumbered to K-13 in the ROD.
- K-17: Federal Mineral Estate Under Native Lands from the Final IAP/EIS was renumbered to K-14 in the ROD.
- A-8: Minimize Wildlife Interaction from the Final IAP/EIS was renumbered to A-6 in the ROD.
- A-10: Air Quality from the Final IAP/EIS was renumbered to A-7 in the ROD.
- A-13: Firefighting Foam Standards from the Final IAP/EIS was renumbered to A-8 in the ROD.
- A-14: Vehicle Idling Standards from the Final IAP/EIS was renumbered to A-9 in the ROD.
- E-5: Minimize Development Footprint from the Final IAP/EIS was renumbered to E-4 in the ROD.
- E-6: Stream Crossing Design from the Final IAP/EIS was renumbered to E-5 in the ROD.
- E-7: Road and Pipeline Design from the Final IAP/EIS was renumbered to E-6 in the ROD.

- E-8: Sand and Gravel Mining from the Final IAP/EIS was renumbered to E-7 in the ROD.
- E-10: Facility Visibility Requirements from the Final IAP/EIS was renumbered to E-8 in the ROD.
- E-11: Protections for Certain Special Status Bird Species from the Final IAP/EIS was renumbered to E-9 in the ROD.
- E-12: Use of Ecological Mapping from the Final IAP/EIS was renumbered to E-10 in the ROD.
- E-13: Protections for Cultural Resources from the Final IAP/EIS was renumbered to E-11 in the ROD.
- E-17: Visual Resources Management from the Final IAP/EIS was renumbered to E-12 in the ROD.
- E-18: Protections for Nesting Steller's and Spectacled Eiders from the Final IAP/EIS was renumbered to E-13 in the ROD.
- E-19: GIS Files for Proposed Infrastructure from the Final IAP/EIS was renumbered to E-14 in the ROD.
- E-21: Aboveground Utility Design from the Final IAP/EIS was renumbered to E-15 in the ROD.
- E-22: Protections for Nesting Falcons from the Final IAP/EIS was renumbered to E-16 in the ROD.
- F-2: Aircraft Use Plan from the Final IAP/EIS was renumbered to F-1 in the ROD.
- F-3: Minimum Flight Altitudes from the Final IAP/EIS was renumbered to F-2 in the ROD.
- F-4: Reduce Impacts of Air Traffic on Subsistence Resources from the Final IAP/EIS was renumbered to F-3 in the ROD.
- M-5: Minimize Bare Soils from the Final IAP/EIS was renumbered to M-3 in the ROD.