

July 2008

Northeast National Petroleum Reserve-Alaska

Supplemental Integrated Activity Plan Record of Decision



Alaska



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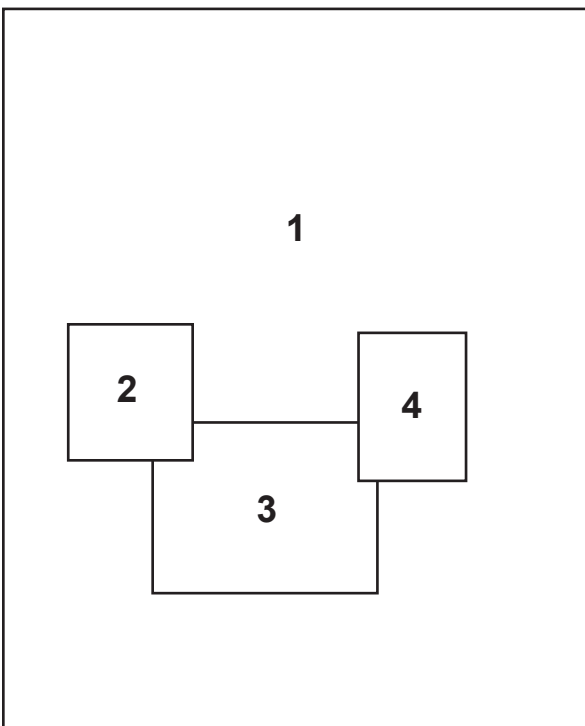
Our Vision

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

Our Mission

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

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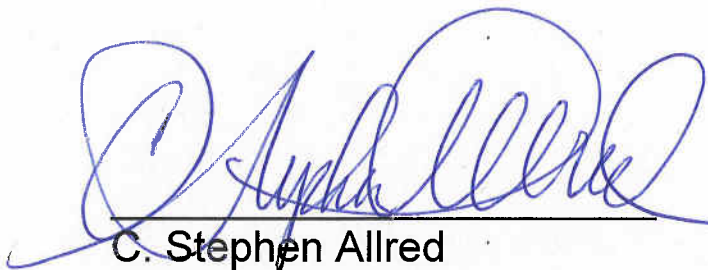


BLM Cover Photos:

1. Teshekpuk Lake, Alaska. Photo by Richard Kemnitz.
2. Caribou, northern Alaska.
3. Drilling Rig at Hunter A well in the Northeast National Petroleum Reserve-Alaska.
Photo by BLM Branch of Energy
4. Canada Goose, northern Alaska.

**Northeast National Petroleum Reserve-Alaska
Supplemental Integrated Activity Plan**

Record of Decision



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July 16, 2008
Date

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Northeast National Petroleum Reserve-Alaska
Supplemental Integrated Activity Plan

Record of Decision

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Summary

This Record of Decision (ROD) documents the Secretary of the Interior's decision regarding the Bureau of Land Management's (BLM) future management of the Northeast National Petroleum Reserve-Alaska (NPR-A). The decision (see Chapter 1) makes nearly 4.4 million acres available for oil and gas leasing, though it defers leasing on 430,000 acres north and east of Teshekpuk Lake for ten years. The decision makes Teshekpuk Lake and its islands (approximately 219,000 acres) unavailable for oil and gas leasing. The decision also establishes performance-based stipulations and required operating procedures (ROPs), which apply to oil and gas and, in some cases, to non-oil and gas activities within the planning area (see Appendix A), and requires studies and monitoring. The decision reflects the Preferred Alternative in the Northeast NPR-A Final Supplemental Integrated Activity Plan/Environmental Impact Statement (IAP/EIS), but includes modifications and clarifications (see Appendix B).

This Supplemental IAP/EIS supplemented and revised the analysis presented in the Northeast NPR-A Amended IAP/EIS. Both the Amended and Supplemental IAP/EISs had the same purpose and need—to address the Nation's need for production of more oil and gas through additional leasing in the Northeast NPR-A. Both the Amended and Supplemental IAP/EISs have sought to achieve this goal through amending the original Northeast NPR-A IAP/EIS ROD of 1998. The U.S. District Court for the District of Alaska vacated the Amended ROD in September, 2006, and the BLM initiated the Supplemental IAP/EIS process in December, 2006.

The Supplemental IAP/EIS addressed the concerns of the District Court and updated the analysis. It analyzed in detail essentially the same four alternatives (see Chapter 2) as the Amended IAP/EIS. The analysis provides the basis for the decisions in this ROD, including the land allocation decisions, stipulations and ROPs, and studies and monitoring requirements. The Supplemental IAP/EIS's analysis also provides the basis for findings required by the Alaska National Interest Lands Conservation Act, the Wild and Scenic Rivers Act, and Executive Orders 11988 and 11990 (see Chapter 3). The decision benefited from public involvement in the plan (see Chapter 4) and reflects the constructive criticism and suggestions of the North Slope Borough, which was a cooperating agency on the Supplemental IAP/EIS, and consultation with other government agencies, particularly the U.S. Fish

and Wildlife Service through formal consultation pursuant to the Endangered Species Act.

1. Decision

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

- *land allocations*, most notably areas available, unavailable, and available but deferred from oil and gas leasing,
- *stipulations and required operating procedures* to meet resource and use objectives and thereby mitigate impacts, and
- *studies and monitoring* to 1.) ensure lessees and permittees comply with applicable requirements, 2.) assess the effectiveness of protective measures to meet objectives, and 3.) provide information to identify alternative means by which resource and use protection objectives may be attained. Such information would be important to adapt management if protective measures are not meeting the objectives.

Land Allocations

This decision makes approximately 3.94 million acres of the planning area's 4.6 million acres available for oil and gas leasing immediately. (See Map 1.) An additional approximately 9% (approximately 430,000 acres) would be available for leasing ten years after signing of the ROD. Approximately 219,000 acres of Teshekpuk Lake and islands in the lake would not be made available for leasing. The lands made available for immediate leasing would include all lands not within the exterior shore of Teshekpuk Lake that were made available in the Northeast NPR-A ROD issued in October 1998. After the ten-year deferral, all lands within the planning area, except Teshekpuk Lake and its islands, would be available for leasing. Exploratory drilling and pipeline construction would be precluded in the deferred area for the length of the deferral and in Teshekpuk Lake and its islands, except that current leases encompassing parts of Teshekpuk Lake and its islands would not be affected as long as the leases remain in effect or are renewed. Upon relinquishment or expiration of existing leases for lands in Teshekpuk Lake and its islands, the lands would be unavailable for leasing.

Stipulations and Required Operating Procedures

This decision adopts the performance-based stipulations and required operating procedures (ROPs) listed in Appendix A. These stipulations and ROPs are derived from those listed for the Preferred Alternative in the Final Supplemental IAP/EIS published in May, 2008 as well as including eight additional stipulations and ROPs. Two of these measures implement Terms and Conditions that the U.S. Fish and Wildlife Service (USFWS) included in its Biological Opinion (BO) developed for the northern planning areas of the NPR-A. The other six ROPs are the result of adopting in this ROD potential mitigation measures described in the Final Supplemental IAP/EIS.

Furthermore, this decision makes modifications and clarifications in the language of stipulations, ROPs, and potential mitigation measures presented in the Final Supplemental IAP/EIS. These modifications and clarifications are described in Appendix B.

Studies and Monitoring

Three categories of studies and monitoring are required by this ROD:

1. Studies prior to activities to better mitigate impacts associated with the activities,
2. Monitoring to ensure compliance with applicable requirements, and
3. Monitoring to evaluate the effectiveness of mitigation measures.

Prior to construction, a lessee shall conduct monitoring studies to assist in developing a design that will mitigate impacts. These studies are described in ROPs A-10, A-11, E-11, E-12, E-13, and E-14 and in Stipulation K-5a).

Also, prior to any authorization of construction of permanent facilities in the portion of the Goose Molting Area deferred from leasing for 10 years (see Map 2), the BLM, after conferring with appropriate Federal, state, and NSB agencies, would complete a research study of the effects of disturbance on molting brant and other geese that utilize the lakes north of Teshekpuk Lake. After conferring with appropriate Federal, state, and NSB agencies, the BLM will develop this research study to include at least 3 years of data collection and focus on 1.) providing baseline data for detection and/or measurement of disturbance, 2.) identifying significant development-related disturbance factors, 3.) evaluating consequences to geese from disturbance within the Goose Molting Area considering relevant stipulations and ROPs, and 4.) identifying additional mitigation measures to protect molting geese

that may be considered necessary as a result of the study, including recommendations for appropriate placement of permanent facilities based on the study's identification of development-related disturbance factors. In addition, the study results would be used to identify specific location(s) of facility(ies) within the approximately 5,000 acre parcel of land in T. 15 N., R. 4 W., U.M and T. 16 N., Rs. 3 and 4 W. U.M. (as depicted on Map 2) within the Goose Molting Area Lease Tracts F and G. Any additional mitigation practices that are identified as a result of this study that are necessary to achieve the goal of lease stipulation K-4 shall be implemented or agreed to prior to authorization of construction.

To help ensure the proper consideration of potential public health impacts, the BLM will consult with agencies with recognized expertise in Alaska Native public health and health impact assessment on major development proposals to gain information about their potential public health impacts. At a minimum, the agencies to be consulted will include the North Slope Borough Health Department and the Alaska Native Tribal Health Consortium. The BLM may also consult with other sources of recognized public health expertise.

This ROD adopts a monitoring and enforcement program to ensure compliance with the requirements of this ROD as well as applicable laws and regulations within BLM's authority. This monitoring will be designed and carried out to ensure that lessees'/permittees' plans for activities and implementation of those plans conform to the relevant requirements.

Commonly this will require:

- office review of planning documents,
- field visits prior to oil and gas activities to ensure compliance with requirements at the on-the-ground preparation stage for activities, construction, operational start-ups, and abandonment activities (e.g., check staking of ice roads or developments to ensure compliance),
- presence in the field during activities to ensure compliance,
- follow-up field visits to ensure that any required clean-up and abandonment activities were in compliance with requirements.

The BLM will also proceed with ongoing development and implementation of a multi-disciplinary monitoring and assessment program that will help design, evaluate, and continually improve upon mitigating measures in the planning area. This effort will be informed by monitoring requirements in this ROD that require that lessees and permittees conduct monitoring during

operations to help identify impacts and/or means to mitigate impacts. These monitoring requirements are described in ROPs A-10, A-11, E-3, E-12, F-1, and H-1 and stipulations K-4f through h and K-5e.

The BLM will develop and implement a management plan for the Colville River Special Area (CRSA). The CRSA was established in 1977 to protect the arctic peregrine falcon and important habitat for that species within the CRSA. The CRSA Management Plan will address measures that could facilitate and enhance management within the CRSA to protect arctic peregrine falcon and their habitat.

To address concerns relevant to protection of spectacled and Steller's eiders, both of which are listed as threatened under the Endangered Species Act, the BLM is adopting the following measures put forward by the USFWS in its *Biological Opinion for the Northern Planning Areas of the National Petroleum Reserve-Alaska* issued in July 2008.

1. The BLM will provide the USFWS with a copy of the compliance monitoring plan for oil and gas development within the planning area. To ensure protection of listed eiders, special emphasis shall be placed on compliance monitoring for Stipulations/ROPs A-1 through 7, D-2 E-9, 10, 11, 12, 14, 17, and 18, F-1, and K-1 through 3, 6, and 8. All acts of noncompliance or nonconformance to the ROPs, stipulations and enforceable elements of assumptions mentioned above will be reported in writing to the Field Supervisor, U.S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Field Office, 101 12th Ave., Fairbanks, AK 99701. In the event that noncompliance/nonconformance issues arise, BLM and the USFWS will cooperatively develop a strategy to eliminate the problem.
2. The BLM will continue, funding permitting, to contribute to monitoring efforts for threatened eiders and BLM special status species in the NPR-A to allow the BLM and USFWS to better evaluate abundance, distribution, and population trends of listed eiders and other special status species.
3. The BLM will work, funding permitting, with the USFWS and other Federal and state agencies in implementing recovery actions identified in the spectacled and Steller's eider recovery plans. Research to determine important habitats, migration routes, and wintering areas of spectacled and Steller's eiders would be an important step toward

minimizing conflicts with current and future North Slope oil/gas activities.

2. Alternatives

The Northeast NPR-A Final Supplemental IAP/EIS presented four alternatives that were analyzed in detail. The four alternatives were:

Alternative A—No Action

Alternative A comprised decisions established in the ROD for the 1998 Northeast NPR-A IAP/EIS. The decisions described in this alternative constitute the existing management practices of the Northeast NPR-A.

Under this alternative, approximately 87% (4 million acres) of the planning area's approximately 4.6 million acres would continue to be available for oil and gas leasing and approximately 825,000 acres available for leasing would continue to prohibit all permanent oil and gas facilities, with, in some cases, exceptions for essential pipeline and road crossings. In an area of approximately 264,000 acres within the Teshekpuk Lake Surface Protection Area in which oil and gas leasing could occur but no surface activities would be permitted, leases would not include subsurface resources in the uppermost 500 feet. Management practices would emphasize prescriptive-based stipulations on surface activities, consultation with local residents, and coordinated scientific studies to protect wildlife habitat, subsistence use areas, and other resources. All the stipulations under Alternative A are subject to an exception clause.

Alternative B

Alternative B would make available approximately 95% (4,387,000 acres) of the planning area's approximately 4.6 million acres for oil and gas leasing, including approximately 387,000 acres that were unavailable in the 1998 ROD. The additional lands made available by Alternative B are within areas of high oil and gas potential in the Northeast Planning Area, and are within the Teshekpuk Lake Special Area. On approximately 977,000 acres available for leasing, the alternative would prohibit permanent oil and gas facilities, except pipelines and, in some cases, roads. Management practices would emphasize performance-based stipulations and ROPs on surface activities, consultation with local residents, and coordinated scientific studies to protect wildlife habitat, subsistence use areas, and other resources. Approximately 213,000 acres northeast of Teshekpuk Lake that are currently

unavailable for oil and gas leasing would remain unavailable for leasing, to provide for protection of wildlife and subsistence resources.

Performance-based stipulations and ROPs (patterned after those developed for the northwest portion of the National Petroleum Reserve – Alaska) would be used to mitigate the impacts of BLM-authorized activities, provide flexibility to BLM to adapt management decisions to uncertain or changing environmental conditions, and provide more consistent management by BLM across the entire northern portion of NPR-A. Among the stipulations required by this alternative were measures specifically targeted at protections of especially sensitive areas, including rivers, deep water lakes, Teshekpuk Lake's shoreline, a goose molting area, portions of the Teshekpuk Lake caribou herd's habitat, coastal areas, the Colville River Special Area, and the Pik Dunes (see stipulations K-1 through K-8). The stipulations and ROPs for this alternative were presented in Appendix E of the Final Supplemental IAP/EIS.

Alternative C

Alternative C would make 100% of the planning area's 4.6 million acres available for oil and gas leasing. On approximately 1,113,000 acres available for leasing, the alternative would prohibit permanent oil and gas facilities, except pipelines and, in some cases, roads. It would utilize the same performance-based stipulations and ROPs developed for Alternative B, including stipulations to protect the sensitive areas described above for Alternative B (except for a setback on the Tingmiaksiqvik River, which only applies to Alternative B; see Stipulation K-1g) to mitigate the impacts of energy development and other land uses on resources in the planning area. These protective measures would mitigate the impacts of energy development and other land uses, provide flexibility to BLM to adapt management decisions to uncertain or changing environmental conditions, and provide more consistent management by BLM across the entire northern portion of NPR-A. These restrictions are presented in Appendix E of the Final Supplemental IAP/EIS.

Alternative D—Preferred Alternative

Alternative D, the Preferred Alternative, would make approximately 86% (approximately 3.94 million acres) of the planning area's 4.6 million acres available for oil and gas leasing immediately. An additional approximately

9% (approximately 430,000 acres) would be deferred from leasing for ten years after signing of the ROD. Leasing could occur after that time if the existing NEPA analysis is adequate. On approximately 1,450,000 acres, including more than half of the 430,000 acres that could be leased after ten years, the alternative would prohibit permanent oil and gas facilities, except pipelines and, in some cases, roads. Management practices would emphasize performance-based stipulations and ROPs on surface activities, consultation with local residents, and coordinated scientific studies to protect wildlife habitat, subsistence use areas, and other resources.

The lands made available for immediate leasing would include all lands made available under Alternative A, except approximately 60,000 acres within the exterior shore of Teshekpuk Lake (i.e., the exclusion from leasing includes islands within the lake). The lands that would be available for leasing ten years after the signing of the ROD would include all additional lands in the planning area not within the exterior shore of Teshekpuk Lake. Under Alternative D, Teshekpuk Lake and its islands (approximately 219,000 acres) would not be made available for oil and gas leasing. Exploratory drilling and pipeline construction would be prohibited in the deferred area for the length of the deferral and in Teshekpuk Lake and its islands except on current leases encompassing parts of Teshekpuk Lake and its islands. Upon relinquishment or expiration of existing leases for lands in Teshekpuk Lake and its islands, the lands would be unavailable for leasing.

Alternative D would make available after ten years approximately 430,000 acres that were unavailable in the 1998 ROD. These lands are within the area of highest oil and gas potential in the Northeast NPR-A Planning Area, and include a part of the Teshekpuk Lake Special Area (TLSA).

As with Alternatives B and C, performance-based stipulations and ROPs (patterned after those developed for the northwest portion of the National Petroleum Reserve – Alaska) would be used to mitigate the impacts of BLM-authorized activities, provide flexibility to BLM to adapt management decisions to uncertain or changing environmental conditions, and provide more consistent management by BLM across the entire northern portion of NPR-A. The stipulations and ROPs for this alternative are presented in Appendix F of the Final Supplemental IAP/EIS. Several major protective measures have been developed as requirements/standards to protect important resources and subsistence activities in these lands and elsewhere in the planning area. Specific protections to address identified sensitive

habitats include measures identified in Alternative B as well as additional protections in the molting geese area, in two caribou movement corridors, and in a caribou calving area south of Teshekpuk Lake (see additional provisions of stipulation K-4, as well as stipulations K-9 through K-11).

Environmentally Preferred Alternative

If the plan remains in effect for more than ten years, Alternative A would be the environmentally preferred alternative. Alternative A would make less land available to oil and gas leasing than the Preferred Alternative would after the Preferred Alternative's ten-year deferral expires. It also makes less land available for leasing than Alternatives B and C. Although Alternative A lacks the performance-based stipulations and ROPs of the Preferred Alternative, which are potentially more protective than the prescriptive stipulations of Alternative A, by offering less lands for lease Alternative A on balance would result in fewer environmental impacts.

In the first ten years after issuance of this ROD, Alternative D, the Preferred Alternative, is the environmentally preferred alternative. The Preferred Alternative would be environmentally preferred in this period because in the first ten years of this decision, less land would be available for leasing than under any other alternative and performance-based stipulations and ROPs would provide greater flexibility to adapt management to meet environmental objectives than the prescriptive stipulations of Alternative A. In addition, several of the requirements and standards in the Preferred Alternative provide greater protection than analogous protections in Alternative A (e.g., higher requirement for pipelines, prohibition without exception of discharge of produced waters) or, in some cases, Alternatives B and C.

3. Management Considerations

This ROD fulfills the purpose of the Northeast NPR-A Supplemental IAP/EIS planning process by addressing the Nation's need for production of more oil and gas through additional leasing in the Northeast NPR-A. That purpose is itself consistent with that of the Naval Petroleum Reserves Production Act (NPRPA), which established the NPR-A from the former Naval Petroleum Reserve #4. The NPRPA states that the NPR-A is to be managed "in a manner consistent with the total energy needs of the Nation." In addition, this ROD completes a process for the Northeast NPR-A that the BLM initiated with its Northeast NPR-A Amended IAP/EIS to follow the direction provided in the May 2001 National Energy Policy report. The National Energy Policy report is a comprehensive list of findings and key recommendations that forms the basis of the President's National Energy Policy. In regard to the NPR-A, the policy report directed the Secretary of the Interior to "consider additional environmentally responsible oil and gas development, based on sound science and the best available technology, through further lease sales in the National Petroleum Reserve-Alaska," and states that "such consideration should include areas not currently leased within the northeast corner of the National Petroleum Reserve-Alaska."

The plan balances the goal of developing oil and gas for the benefit of the Nation, with BLM's mandates to protect surface values. The Federal Land Policy and Management Act (FLPMA) of 1976 requires the BLM to "take any action necessary to prevent unnecessary or undue degradation of public lands." The NPRPA, as amended, contains special provisions that apply to any exploration or development activities within areas "designated by the Secretary of the Interior containing any significant subsistence, recreational, fish and wildlife, or historical or scenic value" (42 USC § 6504(a)). Based on this authority, the Secretary in 1977 designated two Special Areas within the planning area in which all activities were to "be conducted in a manner which will assure the maximum protection of such surface values to the extent consistent with the requirements of this Act for the exploration of the reserve" (42 Federal Register 28,723; June 2, 1977). The Teshekpuk Lake Special Area, the great majority of which is within the Northeast NPR-A, was created to protect migratory waterfowl and shorebirds. The Colville River Special Area (CRSA), about a third of which is in the planning area, was created to protect the Arctic peregrine falcon, which was listed as an endangered species at the time the CRSA was established.

This ROD prevents “unnecessary or undue degradation of public lands” by making some lands unavailable for leasing (Teshekpuk Lake and its islands; 219,000 acres); deferring leasing in areas north and east of Teshekpuk Lake for ten years (430,000 acres); establishing through its performance-based stipulations and ROPs (see Appendix A) limitations on surface facilities along streams, lakes, the coast, and other particularly important areas (including molting geese lakes north and east of Teshekpuk Lake, caribou movement areas east and northwest of Teshekpuk Lake, caribou calving areas around much of Teshekpuk Lake, and raptor foraging areas near the Colville River); applying, again through its stipulations and ROPs, other restrictions on the location, timing, or type of activities; and establishing a monitoring and enforcement program. Making lands unavailable for leasing and restricting activities on those lands made available for leasing have obvious benefits for avoiding degradation of public lands. Deferring leasing in the important habitats north and east of Teshekpuk Lake enhances protection of surface resources by giving BLM the opportunity to learn from exploratory drilling and development activities resulting from early lease sales and translate those lessons into modified standards and requirements of the stipulations and ROPs and additional protective permit requirements. Adopting performance-based stipulations and ROPs allows the BLM to adapt its management to meet the high resource protection objectives identified in the ROD. Finally, monitoring and enforcement help to ensure that activities are carried out according to law, regulation, and the decisions of this ROD and that the objectives for protecting the surface resources and uses are achieved.

The ROD provides “maximum protection” consistent with “exploration of the reserve” in the Teshekpuk Lake Special Area through many of the same protective measures listed above. It provides “maximum protection” consistent with “exploration of the reserve” in the CRSA by specific stipulations (K-1 and K-7) and ROPs (C-2 and F-1) designed to protect arctic peregrine falcon (and, in some cases, other resources along the Colville River) through setbacks for facilities or activities and through requiring completion of a CRSA Management Plan.

Finally, the decision adopted by this ROD includes all practicable means to avoid or minimize environmental harm consistent with the purpose and need of the action, including potential impacts associated with cumulative impacts, except as noted below:

- One aspect of Potential Mitigation Measure 1 for Public Health (see Sec. 4.4.19.5 of the Final Supplemental IAP/EIS): The BLM determined that subpart (a) of the potential mitigation measure, which would require a public health impact analysis was duplicative of the requirement for such an analysis that would be part of any NEPA analysis for a proposed development. (The other part of the potential mitigation measure is included in this ROD under the discussion of “Studies and Monitoring” in Chapter 1.)
- Potential Mitigation Measure 2 for Public Health (see Sec. 4.4.19.5 of the Final Supplemental IAP/EIS): This potential mitigation measure would require acquisition of location-specific historic and current subsistence use information. The reliability and utility of any such data is undermined by reporting inaccuracies common to harvest studies. Moreover, acquisition of this information from the many subsistence users of the planning area would be burdensome for the users.
- Potential Mitigation Measure 3 for Public Health (see Sec. 4.4.19.5 of the Final Supplemental IAP/EIS): This potential mitigation measure would require lessees to conduct a public health monitoring study of a limited set of public health indicators. As described in the impact analysis in the Supplemental IAP/EIS, oil and gas exploration and development activity is one of multiple potential causes for public health problems. The impacts of oil and gas development would be muted if the development is located at a distance from villages and is not connected to a village by a road. Because of multiple causation and the likelihood that oil and gas activities’ contribution to public health problems could vary among different proposals, the BLM considers it inappropriate to adopt this mitigation measure absent a specific proposal. If the BLM receives an application for a major proposal near a village that could potentially have a significant impact on public health to a nearby community, the BLM could at that time consider public health monitoring and mitigation similar to that proposed in this measure.
- Potential Mitigation Measure 7 for Public Health (see Sec. 4.4.19.5 of the Final Supplemental IAP/EIS): This potential mitigation measure would require industry funding of monitoring of impacts to subsistence following an oil spill, remediation of such impacts, and a scientific review panel to advise the AO on these matters. This measure would duplicate requirements of the Oil Pollution Act of 1990, which provides authority for creation of a Natural Resource

Trustee Council following a spill that would have authority to require all of the measures included in this potential mitigation measure. It is anticipated that subsistence and public health concerns associated with impacts to subsistence will be a subject of any natural resource damage assessment that the Trustee Council would require. Duplicating the efforts of such a council is unnecessary and could lead to confusion and contradictory actions.

ANILCA 810

The Alaska National Interest Lands Conservation Act (ANILCA) §810(a) requires that a subsistence evaluation be completed on the final plan for the Northeast 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 the decision in this ROD. The summary is based on the detailed ANILCA §810 analysis in Appendix A of the Final Supplemental IAP/EIS for the Preferred Alternative. The analysis and conclusions presented in the detailed ANILCA §810 evaluation in the Final Supplemental IAP/EIS also apply to the decision in this ROD, because the decision is substantially the same as the Preferred Alternative in the Final Supplemental IAP/EIS. Those changes that have been made in the Preferred Alternative prior to its adoption as the decision in this ROD all mitigate impacts to surface resources, including subsistence resources. As a result, the impacts of the decision in this ROD on subsistence resources will be no more than, and likely, even less than those analyzed for the Preferred Alternative in the Final Supplemental IAP/EIS.

- a. *Without the Cumulative Case:* The effects of the plan adopted in this ROD fall below the “may significantly restrict” threshold, which is

the test for a positive finding under ANILCA §810. Adequate stipulations and ROPs have been incorporated into the plan, including specific procedures for subsistence consultation with directly affected subsistence communities. The impacts to subsistence resources and uses for this alternative are minimal. This finding applies to villages in and near the planning area (Anaktuvuk Pass, Atqasuk, Barrow, Nuiqsut, and Wainwright).

- b. *With the Cumulative Case:* The effects of the cumulative case, presented in Appendix A of the Final Supplemental IAP/EIS, exceed the “may significantly restrict” threshold, and thus a positive ANILCA §810 determination was made. Although the effects of the activities proposed under the plan adopted in this ROD fall below the threshold, adding them to those of the cumulative case results in a level of effects that “may significantly restrict” subsistence uses, with the potential to affect Anaktuvuk Pass, Atqasuk, Barrow, Nuiqsut, 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 this subsistence evaluation that all the alternatives considered in the Final Supplemental IAP/EIS (including the No Action Alternative), when considered together with all the past, present, and reasonably foreseeable future cumulative effects discussed in the Final Supplemental 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, consistent with sound management principles for the utilization of the public lands.*

The BLM prepared the Final Supplemental IAP/EIS in accordance with the President's Energy Policy and the responsibility to manage the NPR-A under the authority of two laws passed in 1976, the NPRPA and the FLPMA. The National Energy Policy directs the Secretary of the Interior to "consider additional environmentally responsible oil and gas development, based on sound science and the best available technology." 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 Supplemental IAP/EIS was undertaken. After considering a broad range of alternatives, the decision described in this ROD was developed to make available additional 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, making some lands unavailable, deferring other lands, and utilizing 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, most prominently, the comments received during the public meetings and hearings which stressed the importance of protecting essential caribou movement/migration corridors, located to the east of Teshekpuk Lake. Although the potentially significant restriction on subsistence uses could be lessened somewhat if the

No Action Alternative were adopted and no additional land were made available for leasing, this will not satisfy the management and policy objectives, including meeting the Nation's energy needs, for which the Supplemental IAP/EIS was undertaken. Moreover, even if the agency were to adopt the No Action alternative, the cumulative impacts would still reach the may-significantly-restrict threshold under ANILCA Section 810.

The BLM has determined that the restriction that may occur under this decision (a restriction which has been found to be minimal when considered alone and only significant when considered together with all the possible impacts of the cumulative case) is necessary and consistent with sound management principles for the use of these public lands and for BLM to fulfill the management goals for the planning area 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 the decision described in this ROD involves the minimal amount of public lands necessary to accomplish the purposes for which the Supplemental 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 available 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 strikes a balance between these varied considerations by balancing the interest in making sufficient lands available to achieve an economically feasible leasing program with mitigation and restricting development activities on lands that are most important for subsistence resources.

The decision creates seven new large lease tracts north of the lake for the purpose of limiting the number of acres available for surface occupancy in areas with sensitive resources. In addition, Teshekpuk Lake is not made available for oil and gas leasing, restrictions are placed on locating

permanent facilities near areas important for subsistence uses and subsistence resources, and deferral of some lands from leasing may further delay, and possibly reduce, impacts to subsistence. 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 precluding or restricting oil and gas activities in the areas most important for subsistence resources and uses.

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, BLM identified subsistence as one of the major issues to be addressed. Information on access, harvests, and traditional use patterns was gathered during both the Amended and Supplemental IAP/EIS processes through meetings in villages on the North Slope, meetings with the NPR-A Subsistence Advisory Panel, and consultation with tribal and local governments. The plan presented in the ROD, including detailed lease stipulations and ROPs, contains significant restrictions and requirements, 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. Key components of mitigation in the plan include:

- Lease Stipulation K-4 prohibits permanent facilities (except pipelines) on approximately 240,000 acres within the GMA north of Teshekpuk Lake.
- Lease Stipulation K-9 prohibits permanent oil and gas facilities in primary caribou travel corridors east and northwest of Teshekpuk Lake.
- Lease stipulation K-10 prohibits permanent oil and gas facilities in areas south and southeast of Teshekpuk Lake that are important for caribou calving and insect relief.
- ROPs H-1 and H-2 will require additional consultation/notification efforts by lessees/land-users to potentially affected communities.
- BLM-Alaska, in conjunction with appropriate Federal, state, NSB, and NSSI representatives, will develop a research study of the effects of disturbance on molting geese (specifically brant), which utilize the lakes north of Teshekpuk Lake.

- The area north of Teshekpuk Lake (the majority of the GMA) is delineated into seven large lease tracts for the purpose of minimizing surface impacts through limiting disturbance within each tract to a maximum of 300 acres.
- Although pipelines will be allowed, the placement of a pipeline(s) in areas identified as important for wildlife movement or use within the TLCHA will be determined in a workshop.

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

Wild and Scenic Rivers Designations

The Northeast NPR-A Final Supplemental IAP/EIS in section 3.4.6.3 describes the BLM's consideration of Wild and Scenic River (WSR) eligibility and suitability evaluations for the planning area. Only the Colville River is considered eligible, but it is not determined to be suitable for designation. Critical factors in evaluating the Colville River's suitability as a component of the WSR system are land ownership and the BLM's ability to manage and/or protect the river as a WSR. The segment of the Colville River corridor in the planning area is not solely under BLM jurisdiction. The riverbed, the corresponding body of water, and the right (east) bank of the river are owned and managed by the State of Alaska or the ASRC. To protect and manage the river as a WSR would require the State of Alaska and ASRC to support the suitability determination and to make a commitment to assist in protecting the identified river values. While both the State of Alaska and ASRC recognize the significance of the Colville River and the importance of protecting identified resources, both clearly reject the notion that inclusion of the Colville River in the WSR system is the way to accomplish this goal (USDOI BLM and MMS 1998). Further, the ASRC is "strongly opposed" to any designation that, in their experience, limits the traditional use of the area by the Iñupiat people. The NSB has also stated that it does not support the designation of the Colville River as a WSR. Without the support and assistance of local interests and other land owners/managers, the Colville River is unmanageable and, therefore, unsuitable as a component of the WSR system.

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 Service (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.

Within the planning area, five species are protected under the provisions set forth in the ESA. These species include two federally listed Endangered species; bowhead whale (*Balaena mysticetus*) and humpback whale (*Megaptera novaeangliae*), and three federally listed Threatened species; spectacled eiders (*Somateria fisheri*), Steller's eider (*Polysticta stelleri*), and polar bear (*Ursus maritimus*). No federally designated Critical Habitat exists within or adjacent to the planning area.

To meet requirements outlined in Section 7(a)(2), the BLM consulted with NOAA-Fisheries on the two whale species and with the USFWS on the remaining listed species. A Biological Assessment (BA) completed by the BLM and submitted to NOAA-Fisheries found that the Preferred Alternative may affect but is not likely to adversely affect the listed whale species. NOAA-Fisheries concurred with this determination. A BA completed by the BLM and submitted to the USFWS found that the Preferred Alternative may affect and is likely to adversely affect listed eider species within the planning area due to the reasonable certainty that non-lethal "take" would occur. The analysis also concluded that the Preferred Alternative may affect but was not likely to adversely affect the polar bear. The USFWS concurred with BLM's findings on listed eiders and the polar bear, and issued its Biological Opinion (BO). The BO included Reasonable and Prudent Measures that are implemented through non-discretionary Terms and Conditions. In this ROD, the BLM is adopting all of the Terms and Conditions through the adoption of the following modified ROPs E-10 and E-11, new stipulation or ROP E-17 and ROP E-18, and an additional paragraph in the "Studies and Monitoring" section of Chapter 1 of this ROD. Terms and Conditions are included in the Requirements/Standards portions of the stipulations and ROPs. The BLM will consult with the USFWS prior to adopting any alternative procedure to meet the objectives of the

stipulations and required operating procedures listed above in this paragraph as well as ROPs A-1 through A-7, E-9, E-12, E-14, F-1 and stipulations D-2, K-1 through K-3, K-6, and K-8. In addition, this ROD in the “Studies and Monitoring” section adopts two Conservation Recommendations made by the USFWS in its BO.

E-10 Required Operating Procedures

Objective: Prevention of migrating waterfowl, including species listed under the Endangered Species Act, from striking oil and gas and related facilities during low light conditions.

Requirement/Standard: Illumination of all structures between August 1 and October 31 shall be designed to direct artificial exterior lighting inward and downward, rather than upward and outward, unless otherwise required by the Federal Aviation Administration.

E-11 Required Operating Procedures (subparagraph (c) revised and subparagraph (d) added)

- c. To reduce the possibility of spectacled and/or Steller’s eiders colliding with above-ground utility lines (power and communication), such lines shall either be buried in access roads or suspended on vertical support members except in rare cases which are to be few in number and limited in extent. Exceptions are limited to the following situations, and must be reported to the USFWS when exceptions are authorized:
 1. Overhead power or communication lines may be allowed when located entirely within the boundaries of a facility pad;
 2. 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 vertical support member; or
 3. Overhead power or communication lines may be allowed in situations when human safety would be compromised by other methods.
- d. To reduce the likelihood of spectacled and/or Steller’s eiders colliding with communication towers, towers should 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, should be avoided to the extent practicable. If support

wires are necessary, they should be clearly marked along their entire length to improve visibility to low flying birds. Such markings shall be developed through consultation with the USFWS.

E-17 Stipulation/ROP (This measure is to be incorporated as a stipulation in new and renewed leases. It is a ROP for existing leases and will be required for any relevant permanent facilities.)

Objective: Minimize impacts to important spectacled eider nesting habitat.

Requirement/Standard: With the exception of pipelines, no a.) permanent oil and gas facilities, b.) material sites, or c.) staging areas that would occupy land through more than one winter season would be permitted in spectacled eider nesting and breeding habitat identified by the USFWS as being “high” density (≥ 1.06 eiders per square mile) using the best available long-term data from the Annual Eider Breeding Survey at the time development is proposed.

E-18 Required Operating Procedures

Objective: Avoid and reduce temporary impacts to productivity from disturbance near Steller’s and/or spectacled eider nests.

Requirement/Standard: Ground-level activity (by vehicle or on foot) within 200 meters of occupied Steller’s and/or spectacled eider nests, from June 1 through August 15, will 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 200 meters of occupied Steller’s and/or spectacled eider nests will be prohibited. In instances where summer (June 1 through August 15) support/construction activity must occur off existing thoroughfares, USFWS-approved nest surveys must be conducted during mid-June prior to the approval of the activity. Collected data would be used to evaluate whether the action could occur based on employment of a 200m buffer around nests or if the activity would be delayed until after mid-August once ducklings are mobile and have left the nest site. The BLM will also work with the USFWS to schedule oil spill response training in riverine, marine, and inter-tidal areas that occurs within 200 meters of shore outside sensitive nesting/brood-rearing periods or conduct nest surveys. The protocol and timing of nest surveys for Steller’s and/or spectacled eiders will be determined in cooperation with the USFWS, and must be approved by the USFWS. Surveys should be supervised by

biologists who have previous experience with Steller's and/or spectacled eider nest surveys.

The following paragraph is part of the decision in Chapter 1 under the heading "Studies and Monitoring"

The BLM will provide the USFWS with a copy of the compliance monitoring plan for oil and gas development within the planning area. To ensure protection of listed eiders, special emphasis shall be placed on compliance monitoring for Stipulations/ROPs A-1 through 7, D-2 E-9, 10, 11, 12, 14, 17, and 18, F-1, and K-1 through 3, 6, and 8. All acts of noncompliance or nonconformance to the ROPs, stipulations and enforceable elements of assumptions mentioned above will be reported in writing to the Field Supervisor, U.S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Field Office, 101 12th Ave., Fairbanks, AK 99701. In the event that noncompliance/nonconformance issues arise, BLM and the USFWS will cooperatively develop a strategy to eliminate the problem.

In addition the BO included two Conservation Measures. The decision includes the following language in Chapter 1 under the heading "Studies and Monitoring" reflecting the Conservation Measures.

1. The BLM will continue, funding permitting, to contribute to monitoring efforts for threatened eiders and BLM special status species in the NPR-A to allow the BLM and USFWS to better evaluate abundance, distribution, and population trends of listed eiders and other special status species.
2. The BLM will work, funding permitting, with the USFWS and other Federal and state agencies in implementing recovery actions identified in the spectacled and Steller's eider recovery plans. Research to determine important habitats, migration routes, and wintering areas of spectacled and Steller's eiders would be an important step toward minimizing conflicts with current and future North Slope oil/gas activities.

It should be noted that following leasing, any proposed exploration or development projects will be subjected to further site-specific ESA analysis before permits or approvals for those projects will be granted to ensure that

BLM's decisions continue to be well informed as activities proceed. These subsequent ESA reviews will assess potential environmental impacts from the specific projects on listed species in the project area, based on any new information about the resources and known information about the location and technology of the proposed projects. These subsequent ESA reviews will occur for each stage of oil and gas exploration and development activities proposed to be authorized by BLM.

Executive Orders 11988 and 11990

The following findings are based on a comprehensive impact analysis done in compliance with Executive Orders 11988 and 11990 in the Final Supplemental IAP/EIS (see sections 4.3.6, 4.4.6, 4.5.6, 4.6.6, 4.7.7.6, 4.8.6, 4.9.6, 4.10.6, 4.11.4.6, and 4.12.3.6 and related subsections).

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 Supplemental IAP/EIS for the Preferred Alternative and applicable to the decision presented in this ROD. It also identifies protective mitigations developed to avoid or lessen impacts to floodplains.

The planning area consists of approximately 4.6 million acres of which more than 95 percent 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. 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 planning area. 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. 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 will be mitigated to the greatest extent practicable through the stipulations and ROPs incorporated into this ROD. The stipulations and ROPs 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, 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 assure 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 of 1969 (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 Supplemental 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.

The planning area consists of approximately 4.6 million acres of which more than 95 percent 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 planning area. 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. 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 will be mitigated to the greatest extent practicable through the stipulations and ROPs incorporated into this ROD. The stipulations and ROPs offer a variety of protections that protect wetlands (see Appendix A). Given that nearly all of the planning area is in wetlands, nearly all of the stipulations and ROPs provide some protection for wetland resources. Of particular significance, however, are setbacks from streams, lakes, and the coast for permanent facilities. 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 assure that all possible protection is provided for the wetlands functions and values.

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 Supplemental IAP/EIS identified direct and indirect impacts that may affect the Iñupiat residents of the North Slope Borough. These residents of the borough qualify as minority populations and all could potentially be disproportionately impacted by the decision adopted in this ROD.

The decision mitigates impacts to this population. It accomplishes this primarily through making some lands unavailable for oil and gas leasing; by deferring leasing in other areas; by adopting measures that protect subsistence resources, access to those resources, and public health; and by monitoring lessees’/permittees’ activities to ensure compliance with requirements and other monitoring to assess the effectiveness of mitigation and help adapt management to better meet resource and use objectives.

Research and Monitoring Team

Following the 1998 Northeast NPR-A IAP/EIS ROD, the BLM established a Research and Monitoring Team (RMT) to assist it in coordinating research and monitoring projects. Subsequently Section 348 of the Energy Policy Act of 2005 (PL 109-58) established the North Slope Science Initiative (NSSI) “to coordinate collection of scientific data that will provide a better understanding of the terrestrial, aquatic, and marine ecosystems of the North Slope of Alaska.” The NSSI is to help “coordinate ongoing and future inventory, monitoring, and research activities to minimize duplication of effort, share financial resources and expertise, and assure the collection of quality information,” and includes an advisory panel of scientists and

technical experts “to provide advice on proposed inventory, monitoring, and research functions.” After the establishment of the NSSI, the RMT was disbanded.

During the IAP/EIS process, the BLM received requests to reestablish the RMT, but the agency has determined not to do so. The BLM is responsible for ensuring that there is appropriate scientific baseline data and analysis to responsibly manage lands within the planning area. It continually assesses its need for such data and analysis, and through this ROD is adopting a monitoring and enforcement program (see discussion under “Studies and Monitoring” in Chapter 1 of this ROD). The BLM will continue to participate in the North Slope Science Initiative to help identify monitoring and assessment needs and develop cooperative strategies with other participating agencies. In addition, the BLM will continue to work directly with agencies and organizations having complementary missions and expertise. The BLM has formal agreements supporting monitoring and assessment work in NPR-A with the State of Alaska, North Slope Borough, U.S. Fish and Wildlife Service, U.S. Geological Survey, and the University of Alaska. The BLM also has ongoing contracts with environmental science consulting firms for input to monitoring study design. While the RMT provided a method of planning for monitoring that the BLM is currently implementing, the ongoing coordination through the above-mentioned organizations and with industry will provide additional benefits in the form of scientific input and review of BLM implementation programs in a timelier manner than possible with the RMT. Consequently, in the context of the planned continuance of the current path of consultation with appropriate entities, development of high-quality models within monitoring plans specific to NPR-A, development and implementation of cooperative monitoring and assessment projects with many agencies, and regular discussion of monitoring efforts and results with the Subsistence Advisory Panel and other interested parties, there would not be additional environmental benefits by reconstituting the RMT.

4. Public Involvement

The BLM considered public comments throughout the process the agency engaged in to amend the 1998 Northeast NPR-A IAP/EIS. The BLM sought and considered comments during development of both the Amended and Supplemental IAP/EISs. The following list highlights major steps in the public involvement process. For more information on public involvement, see Chapter 5 of the Final Supplemental IAP/EIS.

Amended IAP/EIS

Scoping: Scoping occurred from June 23 to October 31, 2003. Six public meetings were held in Alaska.

Public Review of the Draft Amended IAP/EIS: Comments were received on the Draft Amended IAP/EIS from June 9 through August 24, 2004. More than 214,000 comments were received and public meetings were held in seven Alaskan communities and Washington, D.C.

Comments received after the Final Amended IAP/EIS was released and prior to the Amended ROD: Approximately 500 comments were received from the public.

Supplemental IAP/EIS

Comments responding to Notice of Intent: Formal scoping was not required, but BLM invited written comments in its Notice of Intent to conduct the Supplemental IAP/EIS.

Public Review of the Draft Supplemental IAP/EIS: Comments were received on the Draft Supplemental IAP/EIS from August 24 through November 6, 2007. More than 146,000 comments were received and public meetings were held in eight Alaskan communities and Washington, D.C.

Comments received after the Final Supplemental IAP/EIS was released and prior to the issuance of this ROD: Ten comments were received from the public. The BLM reviewed and considered all of these comments. The comments did not identify significant new circumstances or information relevant to environmental concerns that bear upon the decision in the ROD.

Consultation occurred during both the Amended and Supplemental IAP/EIS process with:

- Tribes pursuant to Executive Order 13175
- 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 from the alternatives considered in both the Amended and Supplemental IAP/EISs.

The North Slope Borough (NSB) was a cooperating agency on the Supplemental IAP/EIS. The NSB received preliminary drafts of the Draft and Final Supplemental IAP/EIS and conferred with the BLM on issues of concern throughout the Supplemental IAP/EIS planning process.

Appendix A: Lease Stipulations and Required Operating Procedures

Definitions

The following definitions in the context of this document apply to general lease stipulations and site specific lease stipulations (K-Lease stipulations) and Required Operating Procedures (ROPs):

Active Floodplain: The lowland and relatively flat areas adjoining inland and coastal waters, including the flood-prone areas of offshore islands, composing, at a minimum, that area subject to a 1% or greater chance of flooding in any given year (also referred to as the 100-year or base floodplain).

Authorized Officer (AO): A position of authority for approval of various activities through delegation from the Secretary of the Interior. Currently, the designated AOs in the State of Alaska for leasing, surface use, and permitting are 1) State Director, 2) Manager of the Arctic Field Office in Fairbanks, and 3) Deputy State Director, Division of Resources.

Body of Water or Water body: A lake, river, stream, creek, or pond that holds water throughout the summer and supports a minimum of aquatic life.

Buffer: A zone extending outward or inward from the periphery of a “protected” feature for a specified distance. Activities and development may be prohibited or limited by type or time within the buffer dependent on the goal associated with applying the buffer.

Consultation: Consultation, as it is referenced in the lease stipulations, does not infer formal consultation as required under other legal mandates such as “Section 7 Consultation” under the ESA. Rather, consultation implies that the BLM or the Lessee/Permittee will contact other agencies or entities to inform them of potential actions and to seek input on noted topics. This includes informal contacts, and written, electronic, and/or verbal communication.

Criteria Air Pollutants: Those pollutants subject to the National Air Quality Standards (<http://www.epa.gov/air/criteria.html>). They currently include carbon monoxide, nitrogen dioxide, lead, ozone (including its precursors oxides of nitrogen and photo-reactive volatile organic compounds), particulate matter with an effective diameter of 10 micrometers in size, particulate matter with an effective diameter of 2.5 micrometers in size, and sulfur dioxide.

Development Activities: Any activity associated with construction and operation of facilities or equipment post exploration.

Field: The term used to describe the area containing surface infrastructure above one or more subsurface reservoirs. In this sense, “field” is analogous to “a Unit participating area or collection of participating areas.” The infrastructure in the field includes, but is not limited to, drilling and production pads, service roads, perhaps an airstrip, and processing and support facilities. Field infrastructure may be used in the development and production of several oil/gas accumulations in different subsurface reservoirs. Fields typically have a primary reservoir that supports initial development in addition to satellite reservoirs that are developed later and tie into the main facilities. Although oil and gas reservoirs may vary greatly in subsurface depth and other geologic characteristics, because they are located in the same geographic area it is more efficient to coordinate and share the necessary surface infrastructure. Fields may or may not be connected by permanent roads to adjacent fields or transportation facilities outside the field area.

Hazardous Air Pollutants: Those pollutants listed in the 1990 Amendments to the federal Clean Air Act, as amended, (<http://www.epa.gov/ttn/atw/orig189.html>) that cause or may cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental and ecological effects. They currently include 188 chemicals and compounds.

In-field Roads: “In-field roads” are a component of the potential “footprint” of permanent oil and gas facilities. BLM defines “in-field roads” as gravel roads utilized by industry to conduct operational activities associated with development and production activities. The actual length/width and construction details of any gravel used for roads will be required as a component of any permit application for permanent facilities.

Lease Stipulation: Mitigation developed through BLM planning process/NEPA process that is specifically attached to any lease issued in the Northeast Planning Area.

Permanent Oil and Gas Facilities: Permanent Facilities include production facilities, pipelines, roads, airstrips, production pads, docks and other bottom-founded structures, seawater-treatment plants, and other structures associated with an oil and gas operation that occupy land for more than one winter season; also included are material sites such as sand and gravel, and “temporary platforms” if those platforms are used for production rather than exploration. Exploration wellheads and seasonal facilities such as ice roads and ice pads are excluded, even when the pads are designed for use in successive winters. This definition does not include over-summering ice pads for exploration purposes.

Required Operating Procedure: Mitigation developed through the BLM planning process/NEPA process that is not attached to the oil and gas lease but is required, implemented, and enforced at the operational level for all authorized (not just oil and gas) activities in the planning area.

Required Operating Procedures were developed with various mechanisms in place to ensure compliance. These mechanisms include the following:

- 1) Some ROPs are pre-application requirements; therefore compliance will precede approval of the proposed activity. For example, ROP H-1 a. requires consultation with affected communities prior to submission of an application for relevant activities within the Northeast Planning Area. If consultation has not taken place, the application will be rejected or will be considered incomplete until such time that the consultation has occurred.
- 2) Other ROPs are required design features, and will have to be incorporated into the applicant’s proposal. As an integral part of the proposal and the authorization, the requirement does not need to be stipulated to be enforceable. For example, a minimum pipeline height of 7 feet for above ground pipelines is a required design of any approved above ground pipeline (ROP E-7). Since the authorization (a ROW in this case) authorizes a pipeline with a minimum height of 7 feet, anything less (unless specifically approved through additional NEPA analysis and the permit) is not in compliance and enforcement

actions may be taken even if the permit does not specify a minimum of 7 feet.

- 3) Other ROPs will become conditions of approval on post oil and gas lease land use authorizations and they will be enforceable. For example, ROP C-1 prohibits heavy equipment used for cross-country moves within ½ mile of occupied grizzly bear dens.

Restricted Surface Occupancy: No permanent oil and gas facilities, except pipelines and, in some cases, roads, will be allowed.

Site Specific Lease Stipulation (K-Stipulations): A mitigation measure developed through the BLM planning process/NEPA process attached only to leases issued within spatially defined areas in the Northeast Planning Area (See Map 1).

Temporary Platform: A facility that does not require the use of an ice or gravel pad to support oil and gas and related exploration activities. An example of a temporary platform recently used on the North Slope is Anadarko Petroleum's Arctic Drilling Platform used for the company's Hot Ice Project during the winters of 2003-2004. The facility consisted of a series of platform modules joined together and supported above the tundra surface on steel legs. Once the project was completed the platform was disassembled and the support legs were removed, leaving the tundra surface undisturbed. Note: A temporary platform that is used for production, as opposed to exploration, would be considered a permanent oil and gas facility and be subject to the restrictions on placement of such structures.

Applicability of Requirements/Standards

All surface disturbing activities such as exploratory drilling, road/pipeline construction, seismic acquisition, and overland moves require additional authorization(s) issued subsequent to leasing. The stipulations and ROPs require that certain protections of resources and uses be achieved. Requirements and standards listed with the stipulations and ROPs represent BLM's current understanding of how lessees/permittees would achieve the objectives of the stipulation or ROP.

A lessee/permittee may propose a deviation from the requirements/standards of stipulations and ROPs as part of an authorization application. Prior to approving an alternative procedure as part of the authorization, BLM's staff would analyze the proposal and determine if the proposal incorporating the alternative procedure would achieve the objectives of the stipulations and ROPs. If the BLM determines that the alternative procedure proposed by the applicant would meet the stipulation's or ROP's objective, BLM could approve the alternative procedure.

If BLM determines that the alternative procedure proposed by the applicant is unlikely to meet the objectives of a stipulation or ROP, the AO may allow a deviation from the objectives and requirement/standard in a new decision document supported by additional NEPA analysis.

The BLM could independently require different actions than those listed under requirements/standards. If, after experience or additional study, BLM concludes that a requirement/standard is not achieving or is unlikely to achieve the protective objective when applied to a specific future on-the-ground action or would not do so as well as the use of recently proven technology or techniques, BLM could at the permitting stage and under the terms of the stipulation or ROP, impose other restrictions to meet the objective.

Stipulations and Required Operating Procedures

Waste Prevention, Handling, Disposal, Spills, Air Quality, and Public Health and Safety:

A-1 Required Operating Procedure

Objective: Protect the health and safety of oil field workers and the general public by disposing of solid waste and garbage in accordance with applicable Federal, state, and local law and regulations.

Requirement/Standard: Areas of operation shall be left clean of all debris.

A-2 Required Operating Procedure

Objective: Minimize impacts on the environment from non-hazardous and hazardous waste generation. Encourage continuous environmental

improvement. Protect the health and safety of oil field workers and the general public. Avoid human-caused changes in predator populations. Requirement/Standard: Lessees/permittees shall prepare and implement a comprehensive waste management plan for all phases of exploration and development, including seismic activities. The plan shall be submitted to the AO for approval, in consultation with Federal, state, and NSB regulatory and resource agencies, as appropriate (based on agency legal authority and jurisdictional responsibility), as part of a plan of operations or other similar permit application. Management decisions affecting waste generation shall be addressed in the following order of priority: 1) Prevention and reduction, 2) recycling, 3) treatment, and 4) disposal. The plan shall consider and take into account the following requirements:

- a. Methods to avoid attracting wildlife to food and garbage. All feasible precautions shall be taken to avoid attracting wildlife to food and garbage. (A list of approved precautions, specific to the type of permitted use, can be obtained from the AO.)
- b. Disposal of putrescible waste. Requirements prohibit the burial of garbage. Lessees and permitted users shall have a written procedure to ensure that the handling and disposal of putrescible waste will be accomplished in a manner that prevents the attraction of wildlife. All putrescible waste shall be incinerated, backhauled, or composted in a manner approved by the AO. All solid waste, including incinerator ash, shall be disposed of in an approved waste-disposal facility in accordance with USEPA and ADEC regulations and procedures. The burial of human waste is prohibited except as authorized by the AO.
- c. 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 USEPA, 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.
- d. Disposal of wastewater and domestic wastewater. The BLM prohibits wastewater discharges or disposal of domestic wastewater into bodies of fresh, estuarine, and marine water, including wetlands, unless authorized by a NPDES or state permit.

A-3 Required Operating Procedure

Objective: Minimize pollution through effective hazardous-materials contingency planning.

Requirement/Standard: For oil- and gas-related activities, a Hazardous Materials Emergency Contingency Plan shall be prepared and implemented before transportation, storage, or use of fuel or hazardous substances. The plan shall include a set of procedures to ensure prompt response, notification, and cleanup in the event of a hazardous substance spill or threat of a release. Procedures applicable to fuel and hazardous substances handling (associated with transportation vehicles) shall consist of Best Management Practices (BMPs) if approved by the AO. The plan shall include a list of resources available for response (e.g., heavy-equipment operators, spill-cleanup materials or companies), and names and phone numbers of Federal, state, and NSB contacts. Other Federal and state regulations may apply and require additional planning requirements. All appropriate staff shall be instructed regarding these procedures.

In addition contingency plans related to facilities developed for oil production shall include requirements to:

- a. provide refresher spill-response training to NSB and local community spill-response teams on a yearly basis,
- b. plan and conduct a major spill-response field-deployment drill annually,
- c. prior to production and as required by law, develop spill prevention and response contingency plans and participate in development and maintenance of the North Slope Subarea Contingency Plan for Oil and Hazardous Substances Discharges/Releases for the National Petroleum Reserve - Alaska operating area. Planning shall include development and funding of detailed (e.g., 1:26,000 scale) environmental sensitivity index maps for the lessee's operating area and areas outside the lessee's operating area that could be affected by their activities. (The specific area to be mapped shall be defined in the lease agreement and approved by the AO in consultation with appropriate resource agencies). Maps shall be completed in paper copy and geographic information system format in conformance with the latest version of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration's Environmental Sensitivity Index Guidelines. Draft and final products shall be peer reviewed and approved by the AO in consultation with appropriate Federal, state, and NSB resource and regulatory agencies.

A-4 Required Operating Procedure

Objective: Minimize the impact of contaminants on fish, wildlife, and the environment, including wetlands, marshes and marine waters, as a result of

fuel, crude oil, and other liquid chemical spills. Protect subsistence resources and subsistence activities. Protect public health and safety.

Requirement/Standard: Before initiating any oil and gas or related activity or operation, including field research/surveys and/or seismic operations, lessees/permittees shall develop a comprehensive spill prevention and response contingency plan per 40 CFR § 112 (Oil Pollution Act). The plan shall consider and take into account the following requirements:

- a. On-site Clean-up Materials. Sufficient oil-spill-cleanup materials (absorbents, containment devices, etc...) shall be stored at all fueling points and vehicle-maintenance areas and shall be carried by field crews on all overland moves, seismic work trains, and similar overland moves by heavy equipment.
- b. Storage Containers. Fuel and other petroleum products and other liquid chemicals shall be stored in proper containers at approved locations. Except during overland moves and seismic operations, fuel, other petroleum products, and other liquid chemicals designated by the AO that in total exceed 1,320 gallons shall be stored within an impermeable lined and diked area or within approved alternate storage containers, such as over packs, capable of containing 110% of the stored volume. In areas within 500 feet of water bodies, fuel containers are to be stored within appropriate containment.
- c. Liner Materials. Liner material shall be compatible with the stored product and capable of remaining impermeable during typical weather extremes expected throughout the storage period.
- d. Permanent Fueling Stations. Permanent fueling stations shall be lined or have impermeable protection to prevent fuel migration to the environment from overfills and spills.
- e. Proper Identification of Containers. All fuel containers, including barrels and propane tanks, shall be marked with the responsible party's name, product type, and year filled or purchased.
- f. Notice of Reportable Spills. Notice of any reportable spill (as required by 40 CFR § 300.125 and 18 AAC § 75.300) shall be given to the AO as soon as possible, but no later than 24 hours after occurrence.
- g. Identification of Oil Pans (“duck ponds”). All oil pans shall be marked with the responsible party's name.

A-5 Required Operating Procedure

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

Requirement/Standard: Refueling of equipment within 500 feet of the active floodplain of any water body is prohibited. Fuel storage stations shall be located at least 500 feet from any water body with the exception of small caches (up to 210 gallons) for motor boats, float planes, ski planes, and small equipment, e.g. portable generators and water pumps, will be permitted. The AO may allow storage and operations at areas closer than the stated distances if properly designed to account for local hydrologic conditions.

A-6 Required Operating Procedure

Objective: Minimize the impact on fish, wildlife, and the environment from contaminants associated with the exploratory drilling process.

Requirement/Standard: Surface discharge of reserve-pit fluids is prohibited.

A-7 Required Operating Procedure

Objective: Minimize the impacts to the environment of disposal of produced fluids recovered during the development phase on fish, wildlife, and the environment.

Requirement/Standard: Discharge of produced water in upland areas and marine waters is prohibited.

A-8 Required Operating Procedure

Objective: Minimize conflicts resulting from interaction between humans and bears during leasing and associated activities.

Requirement/Standard: Oil and gas lessees and their contractors and subcontractors will, as a part of preparation of lease operation planning, prepare and implement bear-interaction plans to minimize conflicts between bears and humans. These plans shall include measures to:

- a. Minimize attraction of bears to the drill sites.
- b. Organize layout of buildings and work areas to minimize human/bear interactions.
- c. Warn personnel of bears near or on drill sites and identify proper procedures to be followed.
- d. Establish procedures, if authorized, to discourage bears from approaching the drill site.
- e. Provide contingencies in the event bears do not leave the site or cannot be discouraged by authorized personnel.
- f. Discuss proper storage and disposal of materials that may be toxic to bears.

- g. Provide a systematic record of bears on the site and in the immediate area.
- h. Encourage lessee/permittee to participate and comply with the Incidental Take Program under the Marine Mammal Protection Act.

A-9 Required Operating Procedure

Objective: Reduce air quality impacts.

Requirement/Standard: Concurrent with implementation of the requirement for adoption of use of ultra low sulfur diesel in the “North Slope Ultra Low Sulfur Diesel Transition Agreement,” as amended, between the State of Alaska, BP Exploration (Alaska) Inc. and ConocoPhillips Alaska, Inc., or implementation of federal regulations requiring use of “ultra low sulfur” diesel within NPR-A if these regulations take effect prior to the “Transition Agreement,” all oil and gas operations (vehicles and equipment) that burn diesel fuels must use “ultra low sulfur” diesel as defined by the Alaska Department of Environmental Conservation – Division of Air Quality, subject to its availability. The use of alternative diesel fuel may be considered and approved by BLM’s Authorized Officer on a case-by-case basis.

A-10 Required Operating Procedure

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

Requirement/Standard: This measure includes the following elements:

- a. Prior to initiation of a NEPA analysis for an application to develop a CPF, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source, the lessee shall obtain on-site background air quality and meteorology data to be used in predicting potential future air quality conditions resulting from the proposed action and other Reasonably Foreseeable Future Actions. Monitoring should examine the background concentration of criteria air pollutants. Monitoring data collection must meet BLM standards for quality control and quality assurance before use. (The BLM may consult with the applicant and appropriate federal, state, and/or local agencies to avoid duplication of effort.) The monitoring mechanism for the predevelopment stage would be one that does not require an on-site air polluting emission source. If background data exists that the AO determines is representative of that existing at the proposed development site, the AO may waive this requirement.

- b. For developments with a potential for air pollutant emissions as described in subparagraph (a), the lessee shall prepare (and submit for BLM approval) a complete list of reasonably foreseeable air pollutant emissions, including, but not limited to criteria air pollutants and hazardous air pollutants designated under authority of the Clean Air Act, as amended.
- c. For developments with a potential for air pollutant emissions as described in subparagraph (a) and informed by the pollutant emissions identified in subparagraph (b), the AO may require air quality modeling using BLM-approved atmospheric dispersion models that are appropriate for local conditions. (The AO may consult with the applicant and appropriate federal, state, and/or local agencies regarding modeling to inform his/her decision and avoid duplication of effort.) The modeling shall compare predicted impacts to all applicable local, state, and Federal air quality standards and increments, as well as other scientifically defensible significance thresholds (such as impacts to Air Quality Related Values, incremental cancer risks, etc.).
- d. Depending on the significance of the predicted impacts, a lessee proposing a CPF or other facility with potentially significant impacts on air quality may be required to monitor air pollutant emissions and/or air quality impacts for at least one year of operation. Depending upon the initial monitoring results, the AO may require additional monitoring.
- e. If monitoring indicates impacts would cause unnecessary or undue degradation of the lands or fail to protect health (either directly or through use of subsistence resources), the AO may require changes in the lessee's activities at any time to reduce these emissions, such as, but not limited to, use of cleaner-burning fuels or installation of additional emission control systems.

A-11 Required Operating Procedure

Objective: Ensure that permitted activities do not create human health risks through contamination of subsistence foods.

Requirement/Standard: A lessee proposing a permanent oil and gas development shall design and implement a monitoring study of contaminants in locally-used subsistence foods. The monitoring study shall examine subsistence foods for all contaminants that could be associated with the proposed development. The study shall identify the level of contaminants in subsistence foods prior to the proposed permanent oil and gas development

and monitor the level of these contaminants throughout the operation and abandonment phases of the development. If ongoing monitoring detects a measurable and persistent increase in a contaminant in subsistence foods, the lessee shall design and implement a study to determine how much, if any, of the increase in the contaminant in subsistence foods originates from the lessee's activities. If the study determines that a portion of the increase in contamination in subsistence foods is caused by the lessee's activities, the AO may require changes in the lessee's processes to reduce or eliminate emissions of the contaminant. The design of the study/studies must meet the approval of the AO. The AO may consult with appropriate Federal, state, and NSB agencies prior to approving the study/studies design. The AO may require/authorize changes in the design of the studies throughout the operations and abandonment period, or terminate or suspend studies if results warrant.

Water Use for Permitted Activities:

B-1 Required Operating Procedure

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

Requirement/Standard: Water withdrawal from rivers and streams during winter is prohibited.

B-2 Required Operating Procedure

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

Requirement/Standard: Water withdrawal from lakes may be authorized on a site-specific basis depending on water volume, and depth, and fish population and species diversification. Current water withdrawal requirements specify:

- a. Lakes that are ≥ 7 feet with sensitive fish (any fish except ninespine stickleback or Alaska blackfish), water available for withdrawal is limited to 15% of calculated volume deeper than 7 feet; lakes that are between 5 and 7 feet with sensitive fish, water available for withdrawal would be calculated on a case by case basis.
- b. Lakes that are ≥ 5 feet with only non-sensitive fish (i.e., ninespine stickleback or Alaska blackfish), water available for withdrawal is limited to 30% of calculated volume deeper than 5 feet.

- c. Any lake with no fish present, regardless of depth, water available for withdrawal is up to 35% as specified within the permit.
- d. A water-monitoring plan may be required to assess draw down and water quality changes before, during, and after pumping any fish-bearing lake or lake of special concern.
- e. The removal of naturally grounded ice may be authorized from lakes and shallow rivers on a site-specific basis depending upon its size, water volume, and depth, and fish population and species diversification.
- f. Removed ice aggregate shall be included in the 15% or 30% withdrawal limits—whichever is the appropriate case—unless otherwise approved.
- 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. Note: All water withdrawal equipment must be equipped and must utilize fish screening devices approved by the Alaska Department of Natural Resources (ADNR).
- h. Compaction of snow cover or snow removal from fish-bearing water bodies shall be prohibited except at approved ice road crossings, water pumping stations on lakes, or areas of grounded ice.

The following lease stipulations and 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.

Winter Overland Moves and Seismic Work:

C-1 Required Operating Procedure

Objective: Protect grizzly bear, polar bear, and marine mammal denning and/or birthing locations.

Requirement/Standard:

- a. Cross-country use of heavy equipment and seismic activities is prohibited within ½ mile of occupied grizzly bear dens identified by the ADFG unless alternative protective measures are approved by the AO in consultation with the ADFG.
- b. Cross-country use of heavy equipment and seismic activities is prohibited within 1 mile of known or observed polar bear dens or seal birthing lairs. Operators shall consult with the USFWS and/or NOAA

Fisheries, as appropriate, before initiating activities in coastal habitat between October 30 and April 15.

C-2 Required Operating Procedure

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

Requirement/Standard:

- a. Ground operations shall be allowed only when frost and snow cover are at sufficient depths to protect the tundra. Ground operations shall cease when the spring snowmelt begins (approximately May 5 in the foothills area where elevations reach or exceed 500 feet and approximately May 15 in the northern coastal areas). The exact dates will be determined by the AO.
- b. Only low-ground-pressure vehicles shall be used for on-the-ground activities off ice roads or pads. A list of approved vehicles can be obtained from the AO. Limited use of tractors equipped with wide tracks or “shoes” will be allowed to pull trailers, sleighs or other equipment with approved undercarriage. Note: This provision does not include the use of heavy equipment such as front-end loaders and similar equipment required during ice road construction.
- c. Bulldozing of tundra mat and vegetation, trails, or seismic lines is prohibited; however, on existing trails, seismic lines or camps, clearing of drifted snow is allowed to the extent that the tundra mat is not disturbed.
- d. To reduce the possibility of ruts, vehicles shall avoid using the same trails for multiple trips unless necessitated by serious safety or superseding environmental concern. This provision does not apply to hardened snow trails for use by low-ground-pressure vehicles such as Rolligons.
- e. The location of winter ice roads shall be designed and located to minimize compaction of soils and the breakage, abrasion, compaction, or displacement of vegetation. Offsets may be required to avoid using the same route or track in the subsequent year.
- f.. Motorized ground-vehicle use within the CRSA associated with overland moves, seismic work, and any similar use of heavy equipment shall be minimized within the Colville River Raptor, Passerine, and Moose Area from April 15 through August 5, with the exception that use will be minimized in the vicinity of gyrfalcon nests beginning March 15. Such use will remain ½ mile away from known raptor nesting sites, unless authorized by the AO.

C-3 Required Operating Procedure

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. Snow and ice bridges shall be removed, breached, or slotted before spring breakup. Ramps and bridges shall be substantially free of soil and debris. Except at approved crossings, operators are encouraged to travel a minimum of 100 feet from known overwintering fish streams and lakes.

C-4 Required Operating Procedure

Objective: Avoid additional freeze-down of deep-water pools harboring over-wintering fish and invertebrates used by fish.

Requirement/Standard: Travel up and down streambeds is prohibited unless it can be demonstrated that there will be no additional impacts from such travel to over-wintering fish or the invertebrates they rely on. Rivers and streams shall be crossed at shallow riffles from point bar to point bar whenever possible.

Oil and Gas Exploratory Drilling:

D-1 Lease Stipulation

Objectives: Protect fish-bearing rivers, streams, and lakes from blowouts and minimize alteration of riparian habitat.

Requirement/Standard: Exploratory drilling is prohibited in rivers and streams, as determined by the active floodplain, and fish-bearing lakes.

D-2 Lease Stipulation

Objective: Minimize surface impacts from exploratory drilling.

Requirement/Standard: Construction of permanent or gravel oil and gas facilities shall be prohibited for exploratory drilling. Use of a previously constructed road or pad may be permitted if it is environmentally preferred.

Facility Design and Construction:

E-1 Required Operating Procedure

Objective: Protect subsistence use and access to traditional subsistence hunting and fishing areas and minimize the impact of oil and gas activities on air, land, water, fish and wildlife resources.

Requirement/Standard: All roads must be designed, constructed, maintained, and operated to create minimal environmental impacts and to protect subsistence use and access to traditional subsistence hunting and fishing areas. The AO will consult with appropriate Federal, state, and NSB regulatory and resources agencies prior to approving construction of roads. Subject to approval by the AO, the construction, operation and maintenance of oil field roads is the responsibility of the lessee unless the construction, operation, and maintenance of roads are assumed by the appropriate governing entity.

E-2 Lease Stipulation

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

Requirement/Standard: Permanent oil and gas facilities, including roads, airstrips, and pipelines, are prohibited upon or within 500 feet as measured from the ordinary high water mark. Essential pipeline and road crossings will be permitted on a case-by-case basis. Note: Also refer to Area-Specific Stipulations and ROPs for Rivers Area (*Lease Stipulation K-1*) and Deep Water Lakes (*Lease Stipulation K-2*).

Construction camps are prohibited on frozen lakes and river ice. Siting of construction camps on river sand and gravel bars is allowed and, where feasible, encouraged. 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.

E-3 Lease Stipulation

Objective: Maintain free passage of marine and anadromous fish and protect subsistence use and access to traditional subsistence hunting and fishing.

Requirement/Standard: Causeways and docks are prohibited in river mouths or deltas. Artificial gravel islands and bottom-founded structures are prohibited in river mouths or active stream channels on river deltas. Causeways, docks, artificial islands, and bottom-founded drilling structures 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. A monitoring program, developed in consultation with appropriate Federal, state, and NSB regulatory and resource agencies, shall be required to address the objectives of water quality and free passage of fish.

E-4 Required Operating Procedure

Objective: Minimize the potential for pipeline leaks, the resulting environmental damage and industrial accidents.

Requirement/Standard: All pipelines shall be designed, constructed, and operated under an AO-approved Quality Assurance/Quality Control plan that is specific to the product transported and shall be constructed to accommodate the best available technology for detecting and preventing corrosion or mechanical defects during routine structural integrity inspections.

E-5 Required Operating Procedure

Objective: Minimize impacts of the development footprint.

Requirement/Standard: Facilities shall be designed and located to minimize the development footprint to the maximum extent practicable considering environmental, economic, safety, and social impacts. Issues and methods that are to be considered include: a) use of maximum feasible extended-reach drilling for production drilling to minimize the number of pads and the network of roads between pads; b) sharing facilities with existing development when prudent and technically feasible; c) collocation of all oil and gas facilities, except airstrips, docks, and seawater-treatment plants, with drill pads; d) integration of airstrips with roads; e) use of gravel-reduction technologies, e.g., insulated or pile-supported pads. Note: Where aircraft traffic is a concern, consideration shall be given to balancing gravel pad size and available supply storage capacity with potential reductions in the use of aircraft to support oil and gas operations.

E-6 Required Operating Procedure

Objective: Reduce the potential for ice-jam flooding, impacts to wetlands and floodplains, erosion, alteration of natural drainage patterns, and restriction of fish passage.

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 to natural stream flow. Note: Bridges, rather than culverts, are the preferred method for crossing rivers. When necessary, culverts can be constructed on smaller streams, if they are

large enough to avoid restricting fish passage or adversely affecting natural stream flow.

E-7 Required Operating Procedure

Objective: Minimize disruption of caribou movement and subsistence use.

Requirement/Standard: Pipelines and roads shall be designed to allow the free movement of caribou and the safe, unimpeded passage of the public while participating in traditional subsistence activities. Listed below are the accepted design practices:

- a. Above ground pipelines shall be elevated a minimum of 7 feet as measured from the ground to the bottom of the pipeline at vertical support members.
- b. In areas where facilities or terrain may funnel caribou movement, ramps over pipelines, buried pipelines, or pipelines buried under roads may be required by the AO after consultation with Federal, state, and NSB regulatory and resource agencies (as appropriate, based on agency legal authority and jurisdictional responsibility).
- c. 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.

E-8 Required Operating Procedure

Objective: Minimize the impact of mineral materials mining activities on air, land, water, fish, and wildlife resources.

Requirement/Standard: Gravel mine site design and reclamation will be in accordance with a plan approved by the AO. The plan shall be developed in consultation with appropriate Federal, state, and NSB regulatory and resource agencies and consider:

- a. Locations outside the active flood plain.
- b. Design and construction of gravel mine sites within active flood plains to serve as water reservoirs for future use.
- c. Potential use of the site for enhancing fish and wildlife habitat.

E-9 Required Operating Procedure

Objective: Avoidance of human-caused increases in populations of predators of ground nesting birds.

Requirement/Standard:

- a. Lessee shall utilize best available technology to prevent facilities from providing nesting, denning, or shelter sites for ravens, raptors, and foxes. The lessee shall provide the AO with an annual report on the use of oil and gas facilities by ravens, raptors and foxes as nesting, denning, and shelter sites.
- b. Feeding of wildlife is prohibited and will be subject to non-compliance regulations.

E-10 Required Operating Procedure

Objective: Prevention of migrating waterfowl, including species listed under the Endangered Species Act, from striking oil and gas and related facilities during low light conditions.

Requirement/Standard: Illumination of all structures between August 1 and October 31 shall be designed to direct artificial exterior lighting inward and downward, rather than upward and outward, unless otherwise required by the Federal Aviation Administration.

E-11 Required Operating Procedure

Objective: Minimize the take of species listed under the Endangered Species Act and minimize the disturbance of other species of interest from direct or indirect interaction with oil and gas facilities.

Requirement/Standard: In accordance with the guidance below, before the approval of facility construction, aerial surveys of the following species shall be conducted within any area proposed for development.

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

- a. Surveys shall be conducted by the lessee for at least 3 years before authorization of construction, if such construction is within the USFWS North Slope eider survey area and at least 1 year outside that area. Results of aerial surveys and habitat mapping may require additional ground nest surveys. Spectacled and/or Steller's eider surveys shall be conducted following accepted BLM-protocol during the second week of June.
- b. If spectacled and/or Steller's eiders are determined to be present within the proposed development area, the applicant shall consult with the USFWS and BLM in the design and placement of roads and facilities in order to minimize impacts to nesting and brood-rearing eiders and their preferred habitats. Such consultation shall address timing restrictions and other temporary mitigating measures,

- construction of permanent facilities, placement of fill, alteration of eider habitat, aircraft operations, and introduction of high noise levels.
- c. To reduce the possibility of spectacled and/or Steller's eiders colliding with above-ground utility lines (power and communication), such lines shall either be buried in access roads or suspended on vertical support members except in rare cases which are to be few in number and limited in extent. Exceptions are limited to the following situations, and must be reported to the USFWS when exceptions are authorized:
 1. Overhead power or communication lines may be allowed when located entirely within the boundaries of a facility pad;
 2. 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 vertical support member; or
 3. Overhead power or communication lines may be allowed in situations when human safety would be compromised by other methods.
 - d. To reduce the likelihood of spectacled and/or Steller's eiders colliding with communication towers, towers should 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, should be avoided to the extent practicable. If support wires are necessary, they should be clearly marked along their entire length to improve visibility to low flying birds. Such markings shall be developed through consultation with the USFWS.

Special Conditions in Yellow-billed Loon Habitats:

- a. Aerial surveys shall be conducted by the lessee for at least 3 years before authorization of construction of facilities proposed for development which are within 1 mile of a lake 25 acres or larger in size. These surveys along shorelines of large lakes shall be conducted following accepted BLM protocol during nesting in late June and during brood rearing in late August.
- b. Should yellow-billed loons be present, the design and location of facilities must be such that disturbance is minimized. The default standard mitigation is a 1-mile buffer around all recorded nest sites and a minimum 1,625-foot (500-meter) buffer around the remainder

of the shoreline. Development will generally be prohibited within buffers unless no other option exists.

E-12 Required Operating Procedure

Objective: Use ecological mapping as a tool to assess wildlife habitat before development of permanent facilities, to conserve important habitat types during development.

Requirement/Standard: An ecological land classification map of the development area shall be developed before approval of facility construction. The map will integrate geomorphology, surface form, and vegetation at a scale, level of resolution, and level of positional accuracy adequate for detailed analysis of development alternatives. The map shall be prepared in time to plan one season of ground-based wildlife surveys, if deemed necessary by the AO, before approval of the exact facility location and facility construction.

E-13 Required Operating Procedure

Objective: Protect cultural and paleontological resources.

Requirement/Standard: Lessees shall conduct a cultural and paleontological resources survey prior to any ground-disturbing activity. Upon finding any potential cultural or paleontological resource, the lessee or their designated representative shall notify the AO and suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the AO.

E-14 Required Operating Procedure

Objective: Ensure the passage of fish at stream crossings.

Requirement/Standard: To ensure that crossings provide for fish passage, all proposed crossing designs shall adhere to the best management practices (BMPs) outlined in “Stream Crossing Design Procedure for Fish Streams on the North Slope Coastal Plain” by McDonald et al. (1994), “Fundamentals of Culvert Design for Passage of Weak-Swimming Fish” by Behlke et al. (1991), and other generally accepted best management procedures prescribed by the AO. To adhere to these BMPs, at least three years of hydrologic and fish data shall be collected by the lessee for any proposed crossing of a stream whose structure is designed to occur, wholly or partially, below the stream’s ordinary high water mark. These data shall include, but are not limited to, the range of water levels (highest and lowest) at the location of the planned crossing, and the seasonal distribution and composition of fish populations using the stream.

E-15 Required Operating Procedure

Objective: Prevent or minimize the loss of nesting habitat for cliff nesting raptors.

Requirement/Standard:

- a. Removal of greater than 100 cubic yards of sand and/or gravel from cliffs shall be prohibited.
- b. Any extraction of sand and/or gravel from an active river or stream channel shall be prohibited unless preceded by a hydrological study that indicates no potential impact by the action to the integrity of the river bluffs.

E-16 Required Operating Procedure

Objective: Prevent or minimize the loss of raptors due to electrocution by power lines.

Requirement/Standard: Comply with the most up to date industry accepted suggested practices for raptor protection on power lines. Current accepted standards were published in *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* in 2006 by the Avian Power Line Interaction Committee (APLIC) and are updated as needed.

E-17 Stipulation/ROP (*This measure is to be incorporated as a stipulation in new and renewed leases. It is a ROP for existing leases and will be required for any relevant permanent facilities.*)

Objective: Minimize impacts to important spectacled eider nesting habitat.

Requirement/Standard: With the exception of pipelines, no a.) permanent oil and gas facilities, b.) material sites, or c.) staging areas that would occupy land through more than one winter season would be permitted in spectacled eider nesting and breeding habitat identified by the USFWS as being “high” density (≥ 1.06 eiders per square mile) using the best available long-term data from the Annual Eider Breeding Survey at the time development is proposed.

E-18 Required Operating Procedure

Objective: Avoid and reduce temporary impacts to productivity from disturbance near Steller’s and/or spectacled eider nests.

Requirement/Standard: Ground-level activity (by vehicle or on foot) within 200 meters of occupied Steller’s and/or spectacled eider nests, from June 1 through August 15, will 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 200 meters of occupied Steller's and/or spectacled eider nests will be prohibited. In instances where summer (June 1 through August 15) support/construction activity must occur off existing thoroughfares, USFWS-approved nest surveys must be conducted during mid-June prior to the approval of the activity. Collected data would be used to evaluate whether the action could occur based on employment of a 200m buffer around nests or if the activity would be delayed until after mid-August once ducklings are mobile and have left the nest site. The BLM will also work with the USFWS to schedule oil spill response training in riverine, marine, and inter-tidal areas that occurs within 200 meters of shore outside sensitive nesting/brood-rearing periods or conduct nest surveys. The protocol and timing of nest surveys for Steller's and/or spectacled eiders will be determined in cooperation with the USFWS, and must be approved by the USFWS. Surveys should be supervised by biologists who have previous experience with Steller's and/or spectacled eider nest surveys.

Use of Aircraft for Permitted Activities:

F-1 Required Operating Procedure

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

Requirement/Standard: The lessee shall ensure that aircraft used for permitted activities maintain altitudes according to the following guidelines (Note: This ROP 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 will be restricted to the minimum necessary to collect such data):

- a. Aircraft shall maintain an altitude of at least 1,500 feet above ground level (AGL) when within ½ mile of cliffs identified as raptor nesting sites from April 15 through August 15 and within ½ mile of known gyrfalcon nest sites from March 15 to August 15, unless doing so would endanger human life or violate safe flying practices. Permittees shall obtain information from the BLM necessary to plan flight routes when routes may go near falcon nests.
- b. Aircraft shall maintain an altitude of at least 1,000 feet AGL (except for takeoffs and landings) over caribou winter ranges from December 1 through May 1, unless doing so would endanger human life or violate safe flying practices. Caribou wintering areas will be defined

- annually by the AO. The AO will consult directly with the Alaska Department of Fish and Game in annually defining caribou winter ranges.
- c. Land user shall submit an aircraft use plan as part of an oil and gas exploration or development proposal. The plan shall address strategies to minimize impacts to subsistence hunting and associated activities, including but not limited to the number of flights, type of aircraft, and flight altitudes and routes, and shall also include a plan to monitor flights. Proposed aircraft use plans should be reviewed by appropriate Federal, state, and Borough agencies. Consultations with these same agencies will be required if unacceptable disturbance is identified by subsistence users. Adjustments, including possible suspension of all flights, may be required by the AO if resulting disturbance is determined to be unacceptable. The number of takeoffs and landings to support oil and gas operations with necessary materials and supplies should be limited to the maximum extent possible. During the design of proposed oil and gas facilities, larger landing strips and storage areas should be considered so as to allow larger aircraft to be employed, resulting in fewer flights to the facility.
 - d. Use of aircraft, especially rotary wing aircraft, near known subsistence camps and cabins or during sensitive subsistence hunting periods (spring goose hunting and fall caribou and moose hunting) should be kept to a minimum.
 - e. Aircraft used for permitted activities shall maintain an altitude of at least 2,000 feet AGL (except for takeoffs and landings) over the Teshekpuk Lake Caribou Habitat Area (Map 1) from May 20 through August 20, unless doing so would endanger human life or violate safe flying practices. Aircraft use (including fixed wing and helicopter) by oil and gas lessees in the Goose Molting Area (Map 2) should be minimized from May 20 through August 20, unless doing so would endanger human life or violate safe flying practices.

Oil Field Abandonment:

G-1 Lease Stipulation

Objective: Ensure the final disposition of the land meets the current and future needs of the public.

Requirement/Standard: Upon abandonment or expiration of the lease, all oil- and gas-related facilities shall be removed and sites rehabilitated to as near

the original condition as practicable, subject to the review of the AO. The AO may determine that it is in the best interest of the public to retain some or all facilities. Within the Goose Molting Area, the AO, when determining if it is in the best interest of the public to retain a facility, will consider the impacts of retention to molting geese and goose molting habitat.

Subsistence Consultation for Permitted Activities:

H-1 Required Operating Procedure

Objective: Provide opportunities for participation in planning and decision making to prevent unreasonable conflicts between subsistence uses and oil and gas and related activities.

Requirement/Standard: Lessee/permittee shall consult directly with affected communities using the following guidelines:

- a. Before submitting an application to the BLM, the applicant shall consult with directly affected subsistence communities, the NSB, and the National Petroleum Reserve - Alaska Subsistence Advisory Panel to discuss the siting, timing and methods of their proposed operations to help discover local traditional and scientific knowledge, resulting in measures that minimize impacts to subsistence uses. Through this consultation, the applicant shall make every reasonable effort, including such mechanisms as conflict avoidance agreements and mitigating measures, to ensure that proposed activities will not result in unreasonable interference with subsistence activities.
- b. The applicant shall submit documentation of consultation efforts as part of its operations plan. Applicants should submit the proposed plan of operations to provide an adequate time for review and comment by the National Petroleum Reserve - Alaska Subsistence Advisory Panel and to allow time for formal Government-to-Government consultation with Native Tribal governments. The applicant shall submit documentation of its consultation efforts and a written plan that shows how its activities, in combination with other activities in the area, will be scheduled and located to prevent unreasonable conflicts with subsistence activities. Operations plans must include a discussion of the potential effects of the proposed operation, and the proposed operation in combination with other existing or reasonably foreseeable operations.

- c. A subsistence plan addressing the following items must be submitted:
 1. A detailed description of the activity(ies) to take place (including the use of aircraft).
 2. A description of how the lessee/permittee will minimize and/or deal with any potential impacts identified by the AO during the consultation process.
 3. A detailed description of the monitoring effort to take place, including process, procedures, personnel involved and points of contact both at the work site and in the local community.
 4. Communication elements to provide information on how the applicant will keep potentially affected individuals and communities up-to-date on the progress of the activities and locations of possible, short-term conflicts (if any) with subsistence activities. Communication methods could include holding community meetings, open house meetings, workshops, newsletters, radio and television announcements, etc.
 5. Procedures necessary to facilitate access by subsistence users to conduct their activities.

In the event that no agreement is reached between the parties, the AO shall consult with the directly involved parties and determine which activities will occur, including the timeframes. During development, monitoring plans must be established for new permanent facilities, including pipelines, to assess an appropriate range of potential effects on resources and subsistence as determined on a case-by-case basis given the nature and location of the facilities. The scope, intensity, and duration of such plans will be established in consultation with the AO and Subsistence Advisory Panel. Permittees that propose barging facilities, equipment, supplies, or other materials to NPR-A in support of oil and gas activities in the planning area shall notify, confer, and coordinate with the Alaska Eskimo Whaling Commission, the appropriate local community whaling captains' associations, and the NSB to minimize impacts from the proposed barging on subsistence whaling activities.

H-2 Required Operating Procedure

Objective: Prevent unreasonable conflicts between subsistence activities and geophysical (seismic) exploration.

Requirement/Standard: In addition to the consultation process described in ROP H-1 for permitted activities, before applying for permits to conduct geophysical (seismic) exploration, the applicant shall 1) consult with local communities and residents and 2) notify the local Search and Rescue

organizations of current and recent seismic surveys. For the purpose of this standard, a potentially affected cabin/campsite is defined as any camp or campsite within the boundary of the area subject to proposed geophysical exploration and/or within 1 mile of actual or planned travel routes used to supply the seismic operations while it is in operation.

- a. Because of the large land area covered by typical geophysical operations and the potential to impact a large number of subsistence users during the exploration season, the permittee/operator will notify in writing all potentially affected long-term cabin and camp users.
- b. The official recognized list of cabin and campsite users is the NSB's 2001 (or most current) inventory of cabins and campsites.
- c. A copy of the notification letter and a list of potentially affected users shall also be provided to the office of the appropriate Native Tribal government.
- d. The AO will prohibit seismic work within 1 mile of any known, long-term, cabin or campsite unless an alternate agreement between the cabin/campsite owner/user is reached through the consultation process and presented to the AO. (Regardless of the consultation outcome, the AO will prohibit wintertime seismic work within 300 feet of a known long-term cabin or campsite.)
- e. The permittee shall notify the appropriate local Search and Rescue (e.g., Nuiqsut Search and Rescue, Atqasuk Search and Rescue) of their current operational location within the NPR-A on a weekly basis. This notification should include a map indicating the current extent of surface use and occupation, as well as areas previously used/occupied during the course of the operation in progress. The purpose of this notification is to allow hunters up-to-date information regarding where seismic exploration is occurring, and has occurred, so that they can plan their hunting trips and access routes accordingly. Identification of the appropriate Search and Rescue offices to be contacted can be obtained from the NPR-A Subsistence Advisory Panel.

Orientation Programs Associated with Permitted Activities:

I-1 Required Operating Procedure

Objective: Minimize cultural and resource conflicts.

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

- a. provide 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 and biological resources and habitats, including endangered species, fisheries, bird colonies, and marine mammals, and provide guidance on how to avoid disturbance.
- 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 will be operating.
- e. Include information concerning avoidance of conflicts with subsistence, commercial fishing activities, and pertinent mitigation.
- f. Include information for aircraft personnel concerning subsistence activities and areas/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. Provide that individual training is transferable from one facility to another except for elements of the training specific to a particular site.
- h. Include on-site records of all personnel who attend the program for so 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. Include a module discussing bear interaction plans to minimize conflicts between bears and humans.

- j. Provide a copy of 43 CFR 3163 regarding Non-Compliance Assessment and Penalties to on-site personnel.
- k. Include 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.
- l. Include training developed to train employees on how to prevent transmission of communicable diseases, including sexually transmitted diseases, to the local communities. This training should be offered to the NSB Health Department for review and comment.

Endangered Species Act—Section 7 Consultation Process:

J. The lease areas may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or to have some other special status. The BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activities that will contribute to the need to list such a species or their habitat. The BLM may require modifications to or disapprove a proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. 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 Endangered Species Act as amended, 16 USC § 1531 et seq., including completion of any required procedure for conference or consultation.

Lease Stipulations that Apply in Biologically Sensitive Areas:

K-1 Lease Stipulation - Rivers

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 over-wintering habitat for fish; the loss of cultural and paleontological resources; the loss of raptor habitat; impacts to subsistence cabin and campsites; the disruption of subsistence activities; and impacts to scenic and other resource values.

Requirement/Standard: Permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines, are prohibited in the streambed and adjacent to the rivers listed below at the distances identified. (Gravel mines may be located within the active flood plain consistent with ROP E-8). With the exception of the Ikpikpuk River, these setbacks are measured from the bank of the river as determined by the hydrology at the time of application. The standard setback is ½ mile (from the bank's highest high water mark) and increased to ¾ mile (from the bank's highest high water mark) where subsistence cabin and campsites are numerous. Along the Colville River and a portion of the Ikpikpuk a 1-mile (from the bank's highest high water mark) setback is required to protect important raptor habitat (for locations along rivers where setback distances change). On a case-by case basis, and in consultation with Federal, state, and NSB regulatory and resource agencies (as appropriate, based on agency legal authority and jurisdictional responsibility), essential pipeline and road crossings to the main channel will be permitted through setback areas. The above setbacks may not be practical within river deltas. In these situations, permanent facilities shall be designed to withstand a 200-year flood event.

- a. **Colville River:** a 1-mile setback from the boundary of NPR-A along the Colville River as determined by cadastral survey to be the highest high watermark on the left (western or northern) bank extending the length of that portion of the river located within the planning area. 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 possible. Note: This provision does not apply to intercommunity or other permanent roads constructed with public funds for general transportation purposes. This preserves the opportunity to plan, design, and construct public transportation systems to meet the economic, transportation, and public health and safety needs of the State of Alaska and/or communities within National Petroleum Reserve - Alaska.
- b. **Ikpikpuk River:** a ¾-mile setback from each side of the centerline (1½ miles total) of the Ikpikpuk River extending from the mouth south to Sec. 19, T. 7 N., R. 11 W., U.M. (Umiat Meridian). From Sec. 19, T. 7 N., R. 11 W., U.M., to Sec. 4, T. 3 N., R. 12 W., U.M., a 1-mile setback is required. Beginning at Sec. 4, T. 3 N., R. 12 W., U.M., a ½-mile setback from the centerline (1 mile total) will be required to the confluence of the Kigalik River and Maybe Creek.

- Note: The setback distances only apply to the east bank where the Ikpikpuk River is the planning area boundary.
- c. **Miguakiak River:** a ½-mile setback from the bank's highest high water mark.
 - d. **Kikiakrorak and Kogosukruk Rivers:** Note: The following discussion refers only to portions of the Kikiakrorak River downstream from T. 2 N., R. 4 W., U.M. and the Kogosukruk River (including the four tributaries off the southern bank) downstream from T. 2 N., R. 3 W., U.M. No permanent oil and gas surface facilities, except essential transportation crossings, would be allowed within 1 mile of the top of the bluff (or bank if there is no bluff) on either side of the rivers and several of the Kogosukruk tributaries.
 - e. **Fish Creek:** No permanent oil and gas surface facilities, except essential transportation crossings, would be allowed within 3 miles (from the bank's highest high water mark) of the creek downstream from the eastern edge of Sec. 31, T. 11 N., R. 1 E., U.M. or within ½ mile (from the bank's highest high water mark) of the creek farther upstream.
 - f. **Judy Creek:** a ½-mile setback from the banks' highest high water mark extending from the mouth to the confluence of an unnamed tributary in Sec. 8, T8N., R.2W., Umiat Meridian.
 - g. **Tingmiaksiqvik River:** No permanent oil and gas surface facilities, except essential transportation crossings, would be allowed within ½ mile (from the bank's highest high water mark) of this river from its headwaters within Sec. 13, T. 7 N., R. 1 W., U.M. downstream to its confluence with Fish Creek.

K-2 Lease Stipulation--Deep Water Lakes

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 deep water lakes; the loss of spawning, rearing or over wintering habitat for fish; the loss of cultural and paleontological resources; impacts to subsistence cabin and campsites; and the disruption of subsistence activities.

Requirement/Standard: Generally, permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines, are prohibited on the lake or lakebed and within ¼ mile 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 [4 meters]; Mellor 1985). On a case-by-case basis in consultation with Federal, state and NSB regulatory and resource agencies (as appropriate based on

agency legal authority and jurisdictional responsibility), essential pipeline(s), road crossings, and other permanent facilities may be considered through the permitting process in these areas where the lessee can demonstrate on a site-specific basis that impacts will be minimal and if it is determined that there is no feasible or prudent alternative.

K-3 Stipulation - Teshekpuk Lake Shoreline

(Note: Teshekpuk Lake and islands within the lake (approximately 219,000 acres) will not be available for oil and gas leasing.)

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 this large and regionally significant deep water lake; the loss of cultural and paleontological resources; impacts to subsistence cabins, campsites and associated activities; and to protect fish and wildlife habitat including important insect relief areas.

Requirement/Standard: Permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines, are prohibited within ¼ mile of the ordinary high water mark of Teshekpuk Lake. In addition, no permanent oil and gas facilities, except pipelines, would be allowed in portions of Ts. 14-15 N., R. 9 W., and T. 15 N., R. 8 W., U.M. greater than ¼ mile of the ordinary high water mark of Teshekpuk Lake as depicted on Map 1. (No alternative procedures will be approved.)

K-4 Lease Stipulation - Goose Molting Area

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 oil and gas facilities, except for pipelines will be allowed on the approximately 240,000 acres of lake buffers illustrated in lavender on Map 2. No alternative procedures will be considered. Prior to the permitting of a pipeline in the Goose Molting Area, a workshop will be convened to determine the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources. The workshop participants will include but will not be limited to Federal, state, and NSB representatives. In addition, only “In Field” roads will be authorized as part of oil and gas field development.

Requirement/Standard (Exploration): In goose molting habitat area exploratory drilling shall be limited to temporary facilities such as ice pads, ice roads, and ice airstrips, unless the lessee demonstrates that construction

of permanent facilities (outside the identified Goose Molting Restricted Surface Occupancy Areas) such as gravel airstrips, storage pads, and connecting roads is environmentally preferable (Also see *Stipulation K-11* regarding allowable surface disturbance). In addition, the following standards will be followed for permitted activities:

- a. From June 15 through August 20 exploratory drilling and associated activities are prohibited. The intent of this rule is to restrict exploration drilling during the period when geese are present.
- b. Water extraction from any lake used by molting geese shall not alter hydrological conditions that could adversely affect identified goose-feeding habitat along lakeshore margins. Considerations will be given to seasonal use by operators (generally in winter) and geese (generally in summer), as well as recharge to lakes from the spring snowmelt.
- c. Oil and gas exploration activities will avoid alteration (e.g., damage or disturbance of soils, vegetation, or surface hydrology) of critical goose-feeding habitat types along lakeshore margins (grass/sedge/moss), as identified by the AO in consultation with the USFWS.

Requirement/Standard (Development): In Goose Molting Area, the following standards will be followed for permitted activities:

- a. Within the Goose Molting Area from June 15 through August 20, all off-pad activities and major construction activities using heavy equipment (e.g., sand/gravel extraction and transport, pipeline and pad construction, but not drilling from existing production pads) shall be suspended (see also Lease Stipulation K-5-d), unless approved by the AO in consultation with the appropriate Federal, state, and NSB regulatory and resource agencies. The intent of this requirement is to restrict activities that will disturb molting geese during the period when geese are present.
- b. Water extraction from any lakes used by molting geese shall not alter hydrological conditions that could adversely affect identified goose-feeding habitat along lakeshore margins. Considerations will be given to seasonal use by operators (generally in winter) and geese (generally in summer), as well as recharge to lakes from the spring snowmelt.
- c. Oil and gas activities will avoid altering (i.e., damage or disturbance of soils, vegetation, or surface hydrology) critical goose-feeding habitat types along lakeshore margins (grass/sedge/moss) and salt marsh habitats.
- d. Permanent oil and gas facilities (including gravel roads, pads, and airstrips, but excluding pipelines) and material sites will be sited

- outside the identified buffers and RSO areas. Additional limits on development footprint apply; (also see Lease Stipulation K-11.)
- e. Between June 15 and August, 20 within the Goose Molting Area, oil and gas facilities shall incorporate features (e.g., temporary fences, siting/orientation) that screen/shield human activity from view of any Goose Molting Area lake, as identified by the AO in consultation with appropriate Federal, state, and NSB regulatory and resource agencies.
 - f. Strategies to minimize ground traffic shall be implemented from June 15 through August 20. These strategies may include limiting trips, use of convoys, different vehicle types, etc. to the extent practicable. The lessee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the AO if resulting disturbance is determined to be unacceptable.
 - g. Within the Goose Molting Area aircraft use (including fixed wing and helicopter) shall be restricted from June 15 through August 20 unless doing so endangers human life or violates safe flying practices. Restrictions may include: 1) limiting flights to two round-trips/week, and 2) limiting flights to corridors established by the BLM after discussions with appropriate Federal, state, and NSB regulatory and resource agencies. The lessee shall submit with the development proposal an aircraft use plan that considers these and other mitigation. The aircraft use plan shall also include an aircraft monitoring plan. Adjustments, including perhaps suspension of all aircraft use, will be required by the AO if resulting disturbance is determined to be unacceptable. Note: This site-specific 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 will be restricted to the minimum necessary to collect such data.
 - h. Any permit for development issued under this IAP/EIS will include a requirement for the lessee to conduct monitoring studies necessary to adequately determine consequences of development and any need for change to mitigations. Monitoring studies will be site- and development-specific within a set of over-arching guidelines developed by the BLM after conferring with appropriate Federal, state, NSB agencies. The study(s) will include the construction period and will continue for a minimum of 3 years after construction has been completed and production has begun. The monitoring studies

will be a continuation of evaluating the effectiveness of the K-4 Lease Stipulation requirements in meeting the objective of K-4 and determine if any changes to the lease stipulation or any project specific mitigation(s) are necessary. If changes are determined to be necessary, the BLM, with the lessee and/or their representative, will conduct an assessment of the feasibility of altering development operation (e.g. reduced human activity, visibility barriers, noise abatement). Any changes determined necessary will be implemented prior to authorization of any new construction.

K-5 Lease Stipulation - Teshekpuk Lake Caribou Habitat Area

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

Requirement/Standard: In the Teshekpuk Lake Caribou Habitat Area the following standards will be applied to permitted activities:

- a. Before authorization of construction of permanent facilities (limited as they may be by RSO areas established in other lease stipulations), the lessee shall design and implement and report a study of caribou movement unless an acceptable study(s) specific to the Teshekpuk Lake Caribou Herd (TLCH) has been completed within the last 10 years. The study shall include a minimum of four years of current data on the TLCH movements and the study design shall be approved by the AO in consultation with the appropriate Federal, state, and NSB wildlife and resource agencies. The study should provide information necessary to determine facility (including pipeline) design and location. Lessees may submit individual study proposals or they may combine with other lessees in the area to do a single, joint study for the entire TLCHA. Study data may be gathered concurrently with other activities as approved by the AO and in consultation with the appropriate Federal, state, and NSB wildlife and resource agencies. A final report of the study results will be prepared and submitted. Prior to the permitting of a pipeline in the TLCHA, a workshop will be convened to identify the best corridor for pipeline construction in efforts to minimize impacts to wildlife (specifically the TLCH) and subsistence resources. The workshop participants will include but will not be limited to Federal, state, and NSB representatives. All of these modifications will increase protection for caribou and other wildlife that utilize the TLCHA during all seasons.

- b. Within the TLCHA, lessees shall orient linear corridors when laying out oil field developments to the extent practicable, to address migration and corralling effects and to avoid loops of road and/or pipeline that connect facilities.
- c. Ramps over pipelines, buried pipelines, or pipelines buried under the road may be required by the AO, after consultation with appropriate Federal, state, and NSB regulatory and resource agencies, in the TLCHA where pipelines potentially impede caribou movement.
- d. Major construction activities using heavy equipment (e.g., sand/gravel extraction and transport, pipeline and pad construction, but not drilling from existing production pads) shall be suspended within TLCHA from May 20 through August 20, unless approved by the AO in consultation with the appropriate Federal, state, and NSB regulatory and resource agencies. The intent of this requirement is to restrict activities that will disturb caribou during calving and insect-relief periods. If caribou arrive on the calving grounds prior to May 20, major construction activities will be suspended. The lessee 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.
- e. The following ground and air traffic restrictions shall apply to permanent oil and gas-related roads in the areas and time periods indicated:
 - 1. Within the TLCHA, from May 20 through August 20, traffic speed shall not exceed 15 miles per hour when caribou are within ½ mile of the road. Additional strategies may include limiting trips, using convoys, using different vehicle types, etc., to the extent practicable. The lessee shall submit with the development proposal a vehicle use plan that considers these and any other mitigation. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the AO if resulting disturbance is determined to be unacceptable.
 - 2. The lessee or a contractor 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 will be stopped temporarily to allow a crossing by 10 or more caribou. Sections of road will be evacuated whenever an attempted crossing by a large number of caribou appears to be imminent. The lessee shall

submit with the development proposal a vehicle use plan that considers these and any other mitigation. The vehicle use plan shall also include a vehicle-use monitoring plan. Adjustments will be required by the AO if resulting disturbance is determined to be unacceptable.

3. Major equipment, materials, and supplies to be used at oil and gas work sites in the TLCHA shall be stockpiled prior to or after the period of May 20 through August 20 to minimize road traffic during that period.
4. Within the TLCHA aircraft use (including fixed wing and helicopter) shall be restricted from May 20 through August 20 unless doing so endangers human life or violates safe flying practices. Restrictions may include prohibiting the use of aircraft larger than a Twin Otter by authorized users of the planning area, including oil and gas lessees, from May 20 through August 20 within the TLCHA, except for emergency purposes. The lessee shall submit with the development proposal an aircraft use plan that considers these and other mitigation. The aircraft use plan shall also include an aircraft monitoring plan. Adjustments, including perhaps suspension of all aircraft use, will be required by the AO if resulting disturbance is determined to be unacceptable. 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 will be restricted to the minimum necessary to collect such data.
5. Within the TLCHA aircraft use (including fixed wing and helicopter) shall be restricted from May 20 through June 20 unless doing so endangers human life or violates safe flying practices. Restrictions may include limiting fixed-wing aircraft takeoffs and landings by authorized users of the planning area to an average of one round-trip flight per day from May 20 through June 20, at aircraft facilities within the TLCHAs. The lessee shall submit with the development proposal an aircraft use plan that considers these and other mitigation. The aircraft use plan shall also include an aircraft monitoring plan. Adjustments, including perhaps suspension of all aircraft use, will be required by the AO if resulting disturbance is determined to be unacceptable.
6. Aircraft shall maintain a minimum height of 1,000 feet AGL (except for takeoffs and landings) over caribou winter ranges from

December 1 through May 1, and 2,000 feet AGL over the TLCHA from May 20 through August 20, unless doing so endangers human life or violates safe flying practices. Caribou wintering ranges will be defined annually by the AO in consultation with the Alaska Department of Fish and Game. 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 will be restricted to the minimum necessary to collect such data.

K-6 Stipulation - Coastal Area

Objective: Minimize hindrance or alteration of caribou movement within caribou coastal insect-relief areas; to prevent contamination of marine waters; loss of important bird habitat; alteration or disturbance of shoreline marshes; and impacts to subsistence resources activities.

Requirement/Standard: In the Coastal Area, permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines established to support exploration and development activities shall be located at least $\frac{3}{4}$ mile inland from the coastline to the extent practicable. Where, as a result of technological limitations, economics, logistics, or other factors, a facility must be located within $\frac{3}{4}$ mile inland of the coastline, the practicality of locating the facility at previously occupied sites such as Camp Lonely, various Husky/USGS drill sites, and Distant Early Warning (DEW)-Line sites, shall be considered. Use of existing sites within $\frac{3}{4}$ mile of the coastline shall also be acceptable where it is demonstrated that use of such sites will reduce impacts to shorelines or otherwise be environmentally preferable. All lessees/permittees involved in activities in the immediate area must coordinate use of these new or existing sites with all other prospective users. Before conducting open water activities, the lessee shall consult with the Alaska Eskimo Whaling Commission, the Nuiqsut Whaling Captains' Association, and the NSB to minimize impacts to the fall and spring subsistence whaling activities of the communities of the North Slope.

K-7 Lease Stipulation - Colville River Special Area

Objective: Prevent or minimize loss of raptor foraging habitat. (also see Lease Stipulation K-1; Rivers Area).

Requirement/Standard for Facilities: If necessary to construct permanent facilities within the Colville River Special Area, all reasonable and practicable efforts shall be made to locate permanent facilities as far from

raptor nests as feasible. Additionally, within 15 miles of raptor nest sites, significant alteration of high quality foraging habitat shall be prohibited unless the lessee can demonstrate on a site-specific basis that impacts would be minimal or it is determined that there is no feasible or prudent alternative. Of particular concern are ponds, lakes, wetlands, and riparian habitats.

Note: On a case-by case basis, and in consultation with appropriate Federal and state regulatory and resource agencies, essential pipeline and road crossings will be permitted through these areas where no other feasible or prudent options are available.

K-8 Lease Stipulation - Pik Dunes

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 within the Pik Dunes.

K-9 Lease Stipulation – Caribou Movement Corridor

Objective: Minimize disturbance and hindrance of caribou, or alteration of caribou 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 towards the Kogru Inlet and 2) the area adjacent to the northwest corner of Teshekpuk Lake.

Requirement/Standard: Within the Caribou Movement Corridors, no permanent oil and gas facilities, except for pipelines, will be allowed on the approximately 54,700 (approximately 45,000 acres east of Teshekpuk Lake, and approximately 9,700 acres northwest of Teshekpuk Lake) illustrated on Map 1. Prior to the permitting of a pipeline in the Caribou Movement Corridors, a workshop will be convened to identify the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources. The workshop participants will include but will not be limited to Federal, state, and NSB representatives. Note: In addition to the general lease stipulations and ROPs, site-specific lease stipulations, i.e. K-3, K-4, K-5, and K-11 will also apply.

K-10 Lease Stipulation – Southern Caribou Calving Area

Objective: Minimize disturbance and hindrance of caribou, or alteration of caribou movements (that are essential for all season use, including calving

and post calving, and insect-relief) in the area south/southeast of Teshekpuk Lake:

Requirement/Standard: Within the Southern Caribou Calving Area, no permanent oil and gas facilities, except pipelines, would be allowed on the approximately 240,000 acres illustrated on Map 1. Prior to the permitting of a pipeline in the Southern Caribou Calving Area, a workshop will be convened to identify the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources. The workshop participants will include but will not be limited to Federal, state, and NSB representatives. Note: In addition to the general stipulations and ROPs, site specific *Stipulations K-4, K-5, K-6, and K-11* would also apply.

K-11 Lease Stipulation: Lease Tracts A-G

Objective: To protect key surface resources and subsistence resources/activities resulting from permanent oil and gas development and associated activities.

Requirement Standard: Permanent surface disturbance resulting from oil and gas activities is limited to 300 acres within the following described lease tracts (Map 1); this does not include surface disturbance activities from pipeline construction. Existing gravel pads within these tracts would not count against the 300-acre limit. A pipeline will be considered after a workshop is convened to identify the best corridor for pipeline construction in efforts to minimize impacts to wildlife and subsistence resources. The workshop participants will include but will not be limited to Federal, state, and NSB representatives. (No alternative procedures will be approved). (Acreages are based on GIS calculations and are approximate):

A. Total Acreage: approximately 52,700:

- 26,500 acres = RSO for Permanent Oil and Gas facilities excluding pipelines (the 23,350 acres includes 5,605 acres of overlap with the Coastal area restrictions).
- 26,200 acres = Area open to development subject to general and site specific lease stipulations and required operating procedures.

The total new development footprint cannot exceed 300 acres (0.6 % of total acreage).

B. Total Acreage: approximately 55,000:

- 38,200 acres = RSO for Permanent Oil and Gas facilities, excluding pipelines (the 33,478 acres includes 5,131 acres of overlap with the Coastal Area restrictions).
- 16,800 acres = Area open to development subject to general and site specific lease stipulations and required operating procedures.

The total new development footprint cannot exceed 300 acres (0.5 % of total acreage).

C. Total Acreage: approximately 46,100:

- 32,500 acres = RSO for Permanent Oil and Gas facilities, excluding pipelines.
- 13,600 acres = Area open to development subject to general and site specific lease stipulations and required operating procedures.

The total new development footprint cannot exceed 300 acres (0.7 % of total acreage).

D. Total Acreage: approximately 54,500:

- 46,900 acres = RSO for Permanent Oil and Gas facilities excluding pipelines.
- 7,700 acres = Area open to development subject to general and site specific lease stipulations and required operating procedures.

The total new development footprint cannot exceed 300 acres (0.6% of total acreage).

E. Total Acreage: approximately 56,500:

- 32,200 acres = RSO for Permanent Oil and Gas facilities, excluding pipelines.
- 24,300 acres = Area open to development subject to general and site specific lease stipulations and required operating procedures.

The total new development footprint cannot exceed 300 acres (0.5% of total acreage).

F. Total Acreage: approximately 57,100:

- 43,200 acres = RSO for Permanent Oil and Gas facilities, excluding pipelines.
- 4,900 acres = Restricted area open to development subject to the results of 3 year study requirement to determine appropriate placement of permanent facility(s) (Map 2)
- 9,000 acres = Area open to development subject to general and site specific lease stipulations and required operating procedures.

The total new development footprint cannot exceed 300 acres (0.5 % of total acreage).

G. Total Acreage: approximately 56,800:

- 48,700 acres = RSO for Permanent Oil and Gas facilities excluding pipelines
- 300 acres = Restricted area open to development subject to the results of 3 year study requirement to determine appropriate placement of permanent facility(s) (Map 2)

- 7,800 acres = Area open to development subject to general and site specific lease stipulations and required operating procedures. The total new development footprint cannot exceed 300 acres (0.5 % of total acreage).

Summer Vehicle Tundra Access:

L-1 Required Operating Procedure

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 to subsistence activities.

Requirement/Standard: On a case-by-case basis, BLM may permit low-ground-pressure vehicles to travel off of gravel pads and roads during times other than those identified in ROP C-2a. Permission for such use would only be granted after an applicant has:

- a. Submitted studies satisfactory to the AO of the impacts on soils and vegetation of the specific low-ground-pressure vehicles to be used. These studies should reflect use of such vehicles under conditions similar to those of the route proposed for use and should demonstrate that the proposed use would have no more than minimal impacts to soils and vegetation.
- b. Submitted surveys satisfactory to the AO of subsistence uses of the area as well as of the soils, vegetation, hydrology, wildlife and fish (and their habitats), paleontological and archaeological resources, and other resources as required by the AO.
- c. Designed and/or modified the use proposal to minimize impacts to the AO's satisfaction. Design steps to achieve the objectives and based upon the studies and surveys may include, but not be limited to, timing restrictions (generally it is considered inadvisable to conduct tundra travel prior to August 1 to protect ground-nesting birds), shifting of work to winter, rerouting, and not proceeding when certain wildlife are present or subsistence activities are occurring. At the discretion of the AO, the plan for summer tundra vehicle access may be included as part of the spill prevention and response contingency plan required by 40 CFR 112 (Oil Pollution Act) and ROP A-4.

Appendix B: Modifications and Clarifications

The following describes clarifications and minor modifications that BLM has made to the Preferred Alternative presented in the Final Supplemental IAP/EIS as well as the adoption of potential mitigation measures. (Modifications that have been made to correct sentence structure, grammatical errors, etc. are not discussed below.)

Consultation on Public Health

Adopt the following language from Potential Mitigation Measure 1 for public health described in the Final Supplemental IAP/EIS in section 4.4.19.5 (and referenced to in 4.6.19.5) in the “Studies and Monitoring” discussion in Chapter 1:

To help ensure the proper consideration of potential public health impacts, the BLM would consult with agencies with recognized expertise in Alaska Native public health and health impact assessment on major development proposals to gain information about their potential public health impacts. At a minimum, the agencies to be consulted would include the North Slope Borough Health Department and the Alaska Native Tribal Health Consortium. The BLM may also consult with other sources of recognized public health expertise.

Rationale: By consulting with organizations with recognized public health expertise, the BLM will be better informed on the potential public health impacts of actions it may authorize and be in a better position to apply appropriate mitigation.

Monitoring and Studies of Spectacled and Steller’s Eiders

Adopt the following language in the “Studies and Monitoring” section of Chapter 1 in response to Terms and Conditions and Conservation Recommendations contained in the USFWS in its *Biological Opinion for the Northern Planning Areas of the National Petroleum Reserve-Alaska* issued in July 2008.

1. The BLM will provide the USFWS with a copy of the compliance monitoring plan for oil and gas development within the planning area. To ensure protection of listed eiders, special emphasis shall be placed

- on compliance monitoring for ROPs A-1 through 7, E-9, 10, 11, 12, 14, 17, and 18 and F-1 and stipulations D-2 and K-1, 2, 3, 6 and 8. All acts of noncompliance or nonconformance to the ROPs, stipulations and enforceable elements of assumptions mentioned above will be reported in writing to the Field Supervisor, U.S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Field Office, 101 12th Ave., Fairbanks, AK 99701. In the event that noncompliance/nonconformance issues arise, BLM and the Service will cooperatively develop a strategy to eliminate the problem.
2. The BLM will continue, funding permitting, to contribute to monitoring efforts for threatened eiders and BLM special status species in the Northeast NPR-A to allow the BLM and USFWS to better evaluate abundance, distribution, and population trends of listed eiders and other special status species.
 3. The BLM will work, funding permitting, with the USFWS and other Federal and state agencies in implementing recovery actions identified in the Steller's and spectacled eider recovery plans. Research to determine important habitats, migration routes, and wintering areas of spectacled and Steller's eiders would be an important step toward minimizing conflicts with current and future North Slope oil/gas activities.

Rationale: To be exempt from the prohibitions of Section 9 of the Endangered Species Act, the BLM must adopt the first subparagraph listed above because it was a Term and Condition implementing a reasonable and prudent measure identified by the USFWS in its BO to protect Steller's and spectacled eiders. The other subparagraphs are from the USFWS BO conservation recommendations and are consistent with the BLM's obligations under the ESA to further the recovery of listed species.

Consultation

The definition of "Consultation" in Appendix A has been changed to delete "either" between "to" and "inform" and "/or" after "and" in the following sentence:

Rather, consultation implies that the BLM or the Lessee/Permittee will contact other agencies or entities to inform them of potential actions and to seek input on noted topics.

Rationale: For true consultation to occur, the BLM believes that it is important that information from BLM or the lessee/permittee be shared with other parties, *and* that the other parties be invited to provide their input.

Criteria Air Pollutants and Hazardous Air Pollutants

Definitions for these terms were added to Appendix A.

Rationale: Defining these terms with their regulatory basis clarifies terms used in ROP A-10.

ROP A-9

Adopt a modified version of the Potential Mitigation Measure for air quality described in the Final Supplemental IAP/EIS in section 4.6.1.5 as follows:

Objective: Reduce air quality impacts.

Requirement/Standard: Concurrent with implementation of the requirement for adoption of use of ultra low sulfur diesel in the “North Slope Ultra Low Sulfur Diesel Transition Agreement,” as amended, between the State of Alaska, BP Exploration (Alaska) Inc. and ConocoPhillips Alaska, Inc., or implementation of federal regulations requiring use of “ultra low sulfur” diesel within NPR-A if these regulations take effect prior to the “Transition Agreement,” all oil and gas operations (vehicles and equipment) that burn diesel fuels must use “ultra low sulfur” diesel as defined by the Alaska Department of Environmental Conservation – Division of Air Quality, subject to its availability. The use of alternative diesel fuel may be considered and approved by BLM’s Authorized Officer on a case-by-case basis.

Rationale: As a trace constituent in diesel fuel, sulfur compounds may cause adverse air quality impacts through formation of sulfate particulate matter (affecting visibility) and deposition of acidic aerosols. These impacts can be reduced significantly by utilizing “ultra low sulfur” diesel fuels (ULSD). In addition, ULSD burns cleaner and produces less light absorbing carbon particulate matter (soot, also called black carbon). Federal regulations require use of ULSD in many, but not all, diesel engines by 2010 and the state has reached an agreement for adoption of ULSD by some of the North Slope oil producers by 2009. Adoption of this new ROP will require uniform adoption of ULSD in all equipment used in NPR-A.

ROP A-10

Adopt a modified version of Potential Mitigation Measure 5 for public health as described in the Final Supplemental IAP/EIS in section 4.4.19.5 (and referenced to in 4.6.19.5) as follows:

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

Requirement/Standard

This measure includes the following elements:

- a. Prior to initiation of a NEPA analysis for an application to develop a CPF, production pad/well, airstrip, road, gas compressor station, or other potential substantial air pollutant emission source, the lessee shall obtain on-site background air quality and meteorology data to be used in predicting potential future air quality conditions resulting from the proposed action and other Reasonably Foreseeable Future Actions. Monitoring should examine the background concentration of criteria air pollutants. Monitoring data collection must meet BLM standards for quality control and quality assurance before use. (The BLM may consult with the applicant and appropriate federal, state, and/or local agencies to avoid duplication of effort.) The monitoring mechanism for the predevelopment stage would be one that does not require an on-site air polluting emission source. If background data exists that the AO determines is representative of that existing at the proposed development site, the AO may waive this requirement.
- b. For developments with a potential for air pollutant emissions as described in subparagraph (a), the lessee shall prepare (and submit for BLM approval) a complete list of reasonably foreseeable air pollutant emissions, including, but not limited to criteria air pollutants and hazardous air pollutants designated under authority of the Clean Air Act, as amended.
- c. For developments with a potential for air pollutant emissions as described in subparagraph (a) and informed by the pollutant emissions identified in subparagraph (b), the AO may require air quality modeling using BLM-approved atmospheric dispersion models that are appropriate for local conditions. (The AO may consult with the applicant and appropriate federal, state, and/or local agencies regarding modeling to inform his/her decision and avoid duplication of effort.) The modeling shall compare predicted impacts to all applicable local, state, and Federal air quality standards and increments, as well as other scientifically defensible significance

- thresholds (such as impacts to Air Quality Related Values, incremental cancer risks, etc.).
- d. Depending on the significance of the predicted impacts, a lessee proposing a CPF or other facility with potentially significant impacts on air quality may be required to monitor air pollutant emissions and/or air quality impacts for at least one year of operation. Depending upon the initial monitoring results, the AO may require additional monitoring.
 - e. If monitoring indicates impacts would cause unnecessary or undue degradation of the lands or fail to protect health (either directly or through use of subsistence resources), the AO may require changes in the lessee's activities at any time to reduce these emissions, such as, but not limited to, use of cleaner-burning fuels or installation of additional emission control systems.

Rationale: Through this measure the BLM can ensure that air emissions are not causing unnecessary and undue degradation of air quality and consequent impacts to public health. One subparagraph of this measure as presented in the Final Supplemental IAP/EIS has been deleted in this ROD because it merely required that combustion sources comply with applicable ambient air quality standards, and, therefore, duplicated the requirements of regulatory agencies.

ROP A-11

Adopt a modified version of Potential Mitigation Measure 4 for public health described in the Final Supplemental IAP/EIS in section 4.4.19.5 (and referenced to in 4.6.19.5) as follows:

Objective: Ensure that permitted activities do not create human health risks through contamination of subsistence foods.

Requirement/Standard: A lessee proposing a permanent oil and gas development shall design and implement a monitoring study of contaminants in locally-used subsistence foods. The monitoring study shall examine subsistence foods for all contaminants that could be associated with the proposed development. The study shall identify the level of contaminants in subsistence foods prior to the proposed permanent oil and gas development and monitor the level of these contaminants throughout the operation and abandonment phases of the development. If ongoing monitoring detects a measurable and persistent increase in a contaminant in subsistence foods, the lessee shall design and

implement a study to determine how much, if any, of the increase in the contaminant in subsistence foods originates from the lessee's activities. If the study determines that a portion of the increase in contamination in subsistence foods is caused by the lessee's activities, the AO may require changes in the lessee's processes to reduce or eliminate emissions of the contaminant. The design of the study/studies must meet the approval of the AO. The AO may consult with appropriate Federal, state, and NSB agencies prior to approving the study/studies design. The AO may require/authorize changes in the design of the studies throughout the operations and abandonment period, or terminate or suspend studies if results warrant.

Rationale: The people of the North Slope have long expressed concerns regarding the effects of contaminants from oil and gas development. Current scientific studies conclude that subsistence foods, upon which residents are heavily dependent, are healthy and that much of the pollution that has been discovered on the North Slope is related to emissions from Eurasia. Nonetheless, without appropriate safeguards, oil and gas development has the potential to contaminate subsistence foods. Adoption of this ROP will help ensure that the human populations that rely on the planning area for much of their food would not be exposed to harmful levels of oil development-associated contaminants and would limit the risk of contaminant-associated disorders (such as cancers, birth defects, neurodevelopmental delay, and endocrine disorders). This ROP also may help reassure communities of the continued safety of subsistence resources, thereby fostering the continued viability of the subsistence diet and way of life, and help to prevent food insecurity, diabetes, other metabolic syndromes, and social pathology.

ROP E-10

Modify ROP E-10 as follows to conform to a Term and Condition presented by the USFWS in its BO for this action:

Objective: Prevention of migrating waterfowl, including species listed under the Endangered Species Act, from striking oil and gas and related facilities during low light conditions.

Requirement/Standard: Illumination of all structures between August 1 and October 31 shall be designed to direct artificial exterior lighting inward and downward, rather than upward and outward, unless otherwise required by the Federal Aviation Administration.

Rationale: To be exempt from the prohibitions of Section 9 of the Endangered Species Act, the BLM must adopt the above Term and Condition implementing a reasonable and prudent measure identified by the USFWS in its BO to protect Steller's and spectacled eiders.

ROP E-11

Modify subparagraph c and add subparagraph d to ROP E-11 as follows to conform to a Term and Condition presented by the USFWS in its BO for this action:

- c. To reduce the possibility of spectacled and/or Steller's eiders colliding with above-ground utility lines (power and communication), such lines shall either be buried in access roads or suspended on vertical support members except in rare cases which are to be few in number and limited in extent. Exceptions are limited to the following situations, and must be reported to the USFWS when exceptions are authorized:
 - 1. Overhead power or communication lines may be allowed when located entirely within the boundaries of a facility pad;
 - 2. 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 vertical support member; or
 - 3. Overhead power or communication lines may be allowed in situations when human safety would be compromised by other methods.
- d. To reduce the likelihood of spectacled and/or Steller's eiders colliding with communication towers, towers should 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, should be avoided to the extent practicable. If support wires are necessary, they should be clearly marked along their entire length to improve visibility to low flying birds. Such markings shall be developed through consultation with the USFWS.

Rationale: To be exempt from the prohibitions of Section 9 of the Endangered Species Act, the BLM must adopt the above Term and

Condition implementing a reasonable and prudent measure identified by the USFWS in its BO to protect Steller's and spectacled eiders.

ROP E-14

Adopt a modified version of the Potential Mitigation Measure for fish described in the Final Supplemental IAP/EIS in section 4.6.7-a.5 as follows:

Objective: Ensure the passage of fish at stream crossings.

Requirement/Standard: To ensure that crossings provide for fish passage, all proposed crossing designs shall adhere to the best management practices (BMPs) outlined in "Stream Crossing Design Procedure for Fish Streams on the North Slope Coastal Plain" by McDonald et al. (1994), "Fundamentals of Culvert Design for Passage of Weak-Swimming Fish" by Behlke et al. (1991), and other generally accepted best management procedures prescribed by the AO. To adhere to these BMPs, at least three years of hydrologic and fish data shall be collected by the lessee for any proposed crossing of a stream whose structure is designed to occur, wholly or partially, below the stream's ordinary high water mark. These data shall include, but are not limited to, the range of water levels (highest and lowest) at the location of the planned crossing, and the seasonal distribution and composition of fish populations using the stream.

Rationale: Requiring adoption of best management practices for fish passage will provide protection measures for fish by maintaining migration corridors to spawning, feeding, or overwintering habitat. Collecting three years of data will help document some seasonal variability in both water levels and fish use. The use of an ineffective stream crossing structure can impact habitat accessibility for fish and could ultimately alter fish population dynamics in a particular drainage.

ROP E-15

Adopt Potential Mitigation Measure 1 for birds described in the Final Supplemental IAP/EIS in section 4.6.8.5 as follows:

Objective: Prevent or minimize the loss of nesting habitat for cliff nesting raptors within the Colville River Special Area.

Requirement/Standard:

- a. Removal of greater than 100 cubic yards of sand and/or gravel from cliffs within the Colville River Special Area shall be prohibited.
- b. Any extraction of sand and/or gravel from an active river or stream channel within the Colville River Special Area shall be prohibited unless preceded by a hydrological study that indicates no potential impact by the action to the integrity of the river bluffs.

Rationale: This ROP adopts a recommendation of a 1999 workshop of nationally recognized experts in raptor management, including representatives of the BLM, USFWS, USGS, Alaska Department of Fish and Game, and the North Slope Borough. Arctic peregrine falcon and other raptors nest in cliffs along the Colville, Kogosukruk, and Kikiarorak rivers in the Colville River Special Area. Removing cliff habitat or undermining cliffs through extraction of sand and/or gravel from river channels can destroy this important habitat. Scientific studies, including important paleontological research along the Colville River, would not be adversely affected by this restriction, as they involve extraction of less than 100 cubic yards.

ROP E-16

Adopt Potential Mitigation Measure 2 for birds described in the Final Supplemental IAP/EIS in section 4.6.8.5 as follows:

Objective: Prevent or minimize the loss of raptors due to electrocution by power lines.

Requirement/Standard: Comply with the most up to date industry accepted suggested practices for raptor protection on power lines. Current accepted standards were published in *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* in 2006 by the Avian Power Line Interaction Committee (APLIC) and are updated as needed.

Rationale: This ROP adopts a recommendation of a 1999 workshop of nationally recognized experts in raptor management, including representatives of the BLM, USFWS, USGS, Alaska Department of Fish and Game, and the North Slope Borough. The measure is considered a best management practice. The wording of the Requirement/Standard has been expanded to cite the standard industry guidance on the topic, acknowledging

that this standard is periodically updated. The cited publication is a joint product of the Avian Power Line Interaction Committee, the Edison Electric Institute, and the California Energy Commission.

Stipulation/ROP E-17 (*This measure is to be incorporated as a stipulation in new and renewed leases. It is a ROP for existing leases and will be required for any relevant permanent facilities.*)

Adopt the following term and condition recommended in the USFWS's Biological Opinion.

Objective: Minimize impacts to important spectacled eider nesting habitat.

Requirement/Standard: With the exception of pipelines, no a.) permanent oil and gas facilities, b.) material sites, or c.) staging areas that would occupy land through more than one winter season would be permitted in spectacled eider nesting and breeding habitat identified by the USFWS as being "high" density (≥ 1.06 eiders per square mile) using the best available long-term data from the Annual Eider Breeding Survey at the time development is proposed.

Rationale: The USFWS's BO included a non-discretionary Term and Condition to protect habitat important for spectacled eider nesting and breeding. This ROD adopts this stipulation/ROP to incorporate the Term and Condition.

ROP E-18

Adopt the following term and condition recommended in the USFWS's Biological Opinion.

Objective: Avoid and reduce temporary impacts to productivity from disturbance near Steller's and/or spectacled eider nests.

Requirement/Standard: Ground-level activity (by vehicle or on foot) within 200 meters of occupied Steller's and/or spectacled eider nests, from June 1 through August 15, will 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 200 meters of occupied Steller's and/or spectacled eider nests will be prohibited. In instances where summer (June 1 through August 15) support/construction activity must occur off existing thoroughfares, USFWS-approved nest surveys must be conducted during mid-June prior to the approval of the activity. Collected data would be used to evaluate whether the action could occur based on employment of a 200m buffer around nests or if the activity would be delayed until after mid-August once ducklings are mobile and have

left the nest site. The BLM will also work with the USFWS to schedule oil spill response training in riverine, marine, and inter-tidal areas that occurs within 200 meters of shore outside sensitive nesting/brood-rearing periods or conduct nest surveys. The protocol and timing of nest surveys for Steller's and/or spectacled eiders will be determined in cooperation with the USFWS, and must be approved by the USFWS. Surveys should be supervised by biologists who have previous experience with Steller's and/or spectacled eider nest surveys.

Rationale: To be exempt from the prohibitions of Section 9 of the Endangered Species Act, the BLM must adopt the above Term and Condition implementing a reasonable and prudent measure identified by the USFWS in its BO to protect Steller's and spectacled eiders.

ROP I-1

Adopt Potential Mitigation Measure 6 for public health described in the Final Supplemental IAP/EIS in section 4.4.19.5 (and referenced to in 4.6.19.5) as follows:

Objective: Minimize cultural and resource conflicts.

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

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- k. Include 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.
- l. Include training developed to train employees on how to prevent transmission of communicable diseases, including sexually transmitted diseases, to the local communities. This training should be offered to the NSB Health Department for review and comment.

Rationale: Training addressing communicable diseases and drug and alcohol importation may be helpful in preventing communicable disease and drug and alcohol abuse.

Stipulation K-3

Expand the protection of the shoreline of Teshekpuk Lake on its western shore and near its outlet in Secs. 1-2, 11-14, T. 14, N., R. 9 W., Secs. 1-3, 8-30, 35-36, T. 15 N., R. 9 W., and Secs. 4-6, T. 15 N., R. 8 W., U.M to prohibit permanent oil and gas facilities, except pipelines, in portions of the sections greater than ¼ mile from the lake by adding the last sentence before the parenthetical phrase in the Requirement/Standard listed below.

Requirement/Standard: Permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines, are prohibited within ¼ mile of the ordinary high water mark of Teshekpuk Lake. In addition, no permanent oil and gas facilities, except pipelines, would be allowed in portions of T. Ts. 14-15 N., R. 9 W., and T. 15 N., R. 8 W., U.M. greater than ¼ mile of the ordinary high water mark of Teshekpuk Lake as depicted on Map 1. (No alternative procedures will be approved.)

Rationale: The Preferred Alternative in the Final Supplemental IAP/EIS provided restrictions on oil and gas facilities within a ¼ mile of all of Teshekpuk Lake. Through other stipulations (K-4, K-9, K-10, and K-11, principally) it also provided protection for additional lands around but farther removed from the lake all around the lake except for in Ts. 14 and 15 N., R. 9 W. and T. 15 N., R. 8 W., U.M. Alternative A, which reflected management prior to adoption of this ROD, prohibited oil and gas activities in the sections in these townships listed above. The analysis of impacts in the Final Supplemental IAP/EIS indicates that these restrictions in Alternative A for these portions of these three townships contributed to Alternative A providing superior protection for birds and fish. Expanding the geographic scope of the Stipulation K-3 in this decision to include areas farther from Teshekpuk Lake to include these sections will enhance protections for fish and birds. It should be noted that the protections included in this revision of Stipulation K-3 do not prohibit exploratory drilling or pipelines in these lands as did Alternative A. By prohibiting permanent oil and gas facilities other than pipelines, however, this revision does provide important protections for birds and fish.

Stipulation K-7

Delete the text of “Requirement/Standard for Activities.”

Rationale: The deleted text lacked clarity. The protection for the listed activities is included in ROP C-2(f).

Study on Effects to Molting Brant and Other Geese

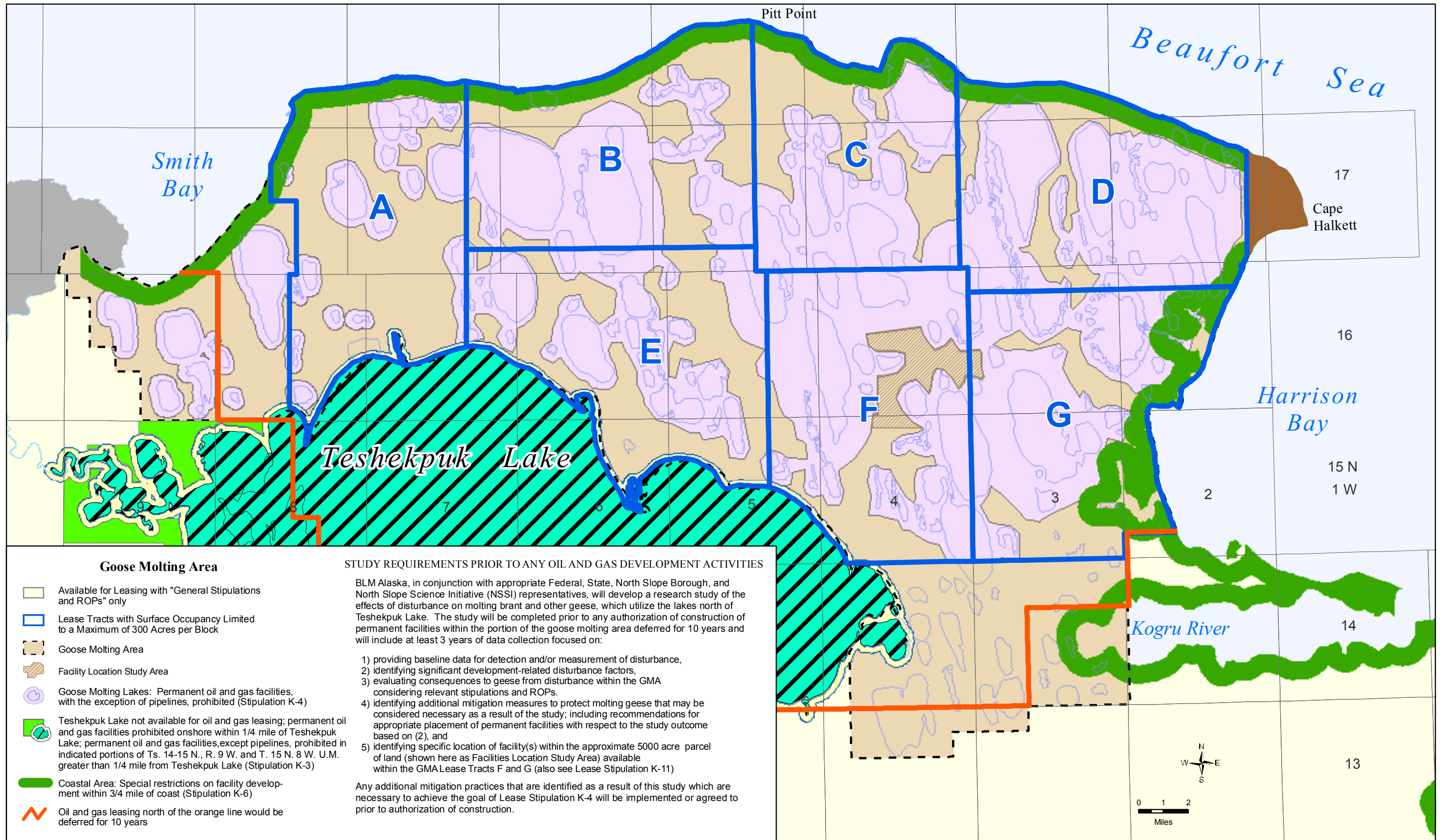
Modify the applicability of a requirement for a study on molting brant and other geese in the Goose Molting Area. The Final Supplemental IAP/EIS stated that, “Within the GMA [Goose Molting Area], BLM, after conferring with appropriate Federal, state, and NSB agencies, would develop a research study of the effects of disturbance on molting brant and other geese that utilize the lakes north of Teshekpuk Lake. The study would be completed prior to any authorization of construction of permanent facilities within the GMA.”

This ROD states in Chapter 1 under “Studies and Monitoring”: “Also, prior to any authorization of construction of permanent facilities in *the portion of the Goose Molting Area deferred from leasing for 10 years* (see Map 2), the BLM, after conferring with appropriate Federal, state, and NSB agencies, would complete a research study of the effects of disturbance on molting brant and other geese that utilize the lakes north of Teshekpuk Lake.”
[emphasis added]

Rationale:

Less than 35,000 acres of the more than 460,000-acre Goose Molting Area will be available for leasing in the first ten years following issuance of this ROD. All of the lakes with the highest number of molting geese are within the area deferred from leasing for ten years. Lakes identified as of particular importance for molting geese would be protected through Restricted Surface Occupancy restrictions imposed by Stipulation K-4. Given the small proportion of the Goose Molting Area that would be available for leasing during the ten-year deferral, the relative unimportance for molting birds of the habitat that is not deferred, and the protections specifically designed for molting geese in the entire Goose Molting Area, the BLM considers it appropriate to modify the language in the Final Supplemental IAP/EIS to require a comprehensive study of disturbance on molting geese in the Goose Molting Area only before construction of permanent facilities could occur in the larger and more important molting habitat within the ten-year deferral area.

Appendix C: Maps



Source: USDOI-BLM, 2007

Map 2. Northeast National Petroleum Reserve-Alaska Decision: Goose Molting Area