



**Bureau of Land Management Alaska
Coastal Plain
Oil and Gas Lease Sale
Nomination and Comment Worksheet**



Name: Karimah Schoenhut, submitting comments on behalf of the Sierra Club

Company: Sierra Club

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Tract Number	Comments
1-32	See Attached Letter at pages 1-2
3, 5-32	See Attached Letter at pages 1-4
22,23,30,31	See Attached Letter at pages 1-2, 4-11

Mail to:
State Director, Bureau of Land Management Alaska State Office
222 W. 7th Ave, #13 Anchorage, Alaska 99513-7504

For more information or assistance with submitting a nomination or comment, please contact Energy & Minerals Branch Chief Wayne Svejnoha, at 907-271-4407.



December 3, 2020

State Director
Bureau of Land Management
Alaska State Office
222 West 7th Avenue
Mailstop 13
Anchorage, AK 99513-7504

RE: The Bureau of Land Management's "call for nominations and comments on the lease tracts considered for the upcoming Coastal Plain (CP) Oil and Gas Lease Sale" (Agency/Docket Number: 19X.LLAK930000.L13100000.EI0000.241A). See 85 Fed. Reg. 73292 (Nov. 17, 2020).

Dear Alaska State Director Padgett,

In response to the Bureau of Land Management's call for nominations on the lease tracts considered for the purportedly "upcoming Coastal Plain (CP) Oil and Gas Lease Sale," and solicitation of comments "on tracts which should receive special concern and analysis," 85. Fed. Reg. 73292, Sierra Club writes to raise its concerns regarding the need for "special concern and analysis" with regard to tracts that encompass polar bear maternal denning habitat for the Southern Beaufort Sea polar bear population. As discussed in detail below, the Bureau of Land Management (BLM) and U.S. Fish and Wildlife Service (FWS) have not conducted the requisite analysis with regard to the impacts of oil and gas activities on polar bear denning and cub survival to satisfy the agency's legal obligations under the National Environmental Policy Act or the Endangered Species Act. Moreover, it is arbitrary and capricious, and otherwise unlawful, for BLM to offer for sale tracts in areas for which the U.S. Fish and Wildlife Service already has specifically identified that compliance with Marine Mammal Protection Act requirements will be "problematic."

The Arctic National Wildlife Refuge is the largest and wildest of our nation's wildlife refuges. The Coastal Plain is the biological heart of the Refuge, providing essential habitat for a

variety of wildlife, including imperiled polar bears, the Porcupine caribou herd, and hundreds of species of migratory birds. It is an area sacred to the Gwich'in nation, who depend on the Refuge for their way of life. This comment letter supplements the broader comments submitted to BLM by Trustees for Alaska on behalf of Sierra Club and other environmental organizations, that identifies the many ways in which the Coastal Plain Leasing Program Record of Decision is unlawful due to egregious failures to evaluate and address the impacts of oil and gas leasing activities on the sensitive resources of the Coastal Plain, and the human rights of the Gwich'in people.

As explained in detail in the comment letter submitted by Trustees for Alaska, every single one of the thirty-two Coastal Plain Arctic Refuge tracts that BLM is considering to lease encompasses sensitive resources that require special concern and analysis. The food security and human rights of the Gwich'in Nation will be harmed by industrial development of the Coastal Plain. To date, the Department of Interior has failed to adequately analyze the potential impacts to the natural resources of the Refuge, and the impacts on subsistence. And neither the Environmental Impact Statement nor the Biological Opinion for the Coastal Plain Leasing Program have provided the necessary analysis to support a decision to offer tracts for lease sale. Thus, BLM cannot lawfully hold an oil and gas lease sale on the Coastal Plain of the Arctic National Wildlife Refuge.

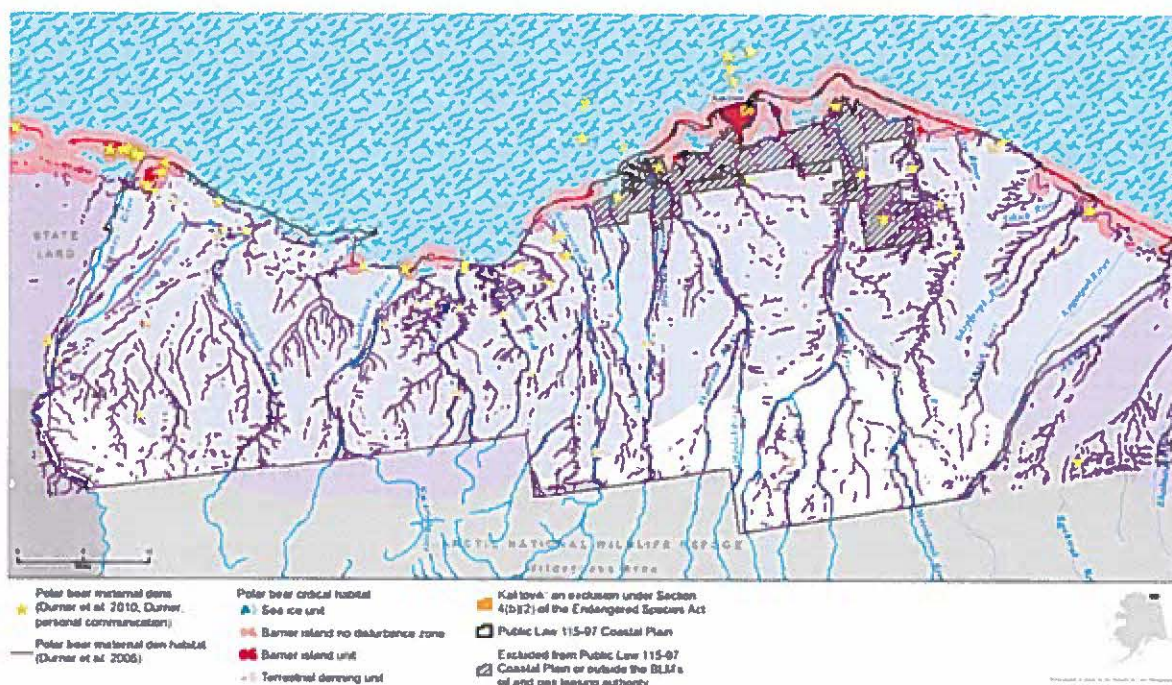
Sierra Club writes here to detail the failure of the Department of Interior to evaluate impacts to polar bear denning and cub survival adequately in making its decision about which areas to open to leasing, and to highlight the legal and analytical deficiencies related to the tracts that BLM is now considering for lease sale.

The Sierra Club was founded in 1892 and is the nation's oldest grassroots environmental organization. The Sierra Club is incorporated in California, and has more than 800,000 members nationwide, with approximately 1,800 members in its Alaska Chapter alone. The organization is dedicated to the protection and preservation of the environment. The Sierra Club's mission is to explore, enjoy and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments. The Sierra Club has members who have visited the Coastal Plain of the Arctic National Wildlife Refuge, and who have recreated in or near the areas potentially affected by seismic surveys, and enjoy the Coastal Plain for

activities such as wildlife viewing, as well as for spiritual, aesthetic, or environmental purposes. The Sierra Club has long worked to ensure that imperiled species receive the much needed protections afforded to them under laws such as the Marine Mammal Protection Act and Endangered Species Act.

The Coastal Plain is almost entirely Endangered Species Act designated critical habitat for the polar bear. The area shaded in light purple below is designated terrestrial denning critical habitat, established to protect the den locations in snow drifts where maternal polar bears give birth to and nurse their newborn cubs (shown as the dark purple lines below) from disturbance and activities that could interfere with access between the sea and den locations. Keeping that area free from disturbances is essential to ensuring that the survival of newborn polar bear cubs is not impaired.

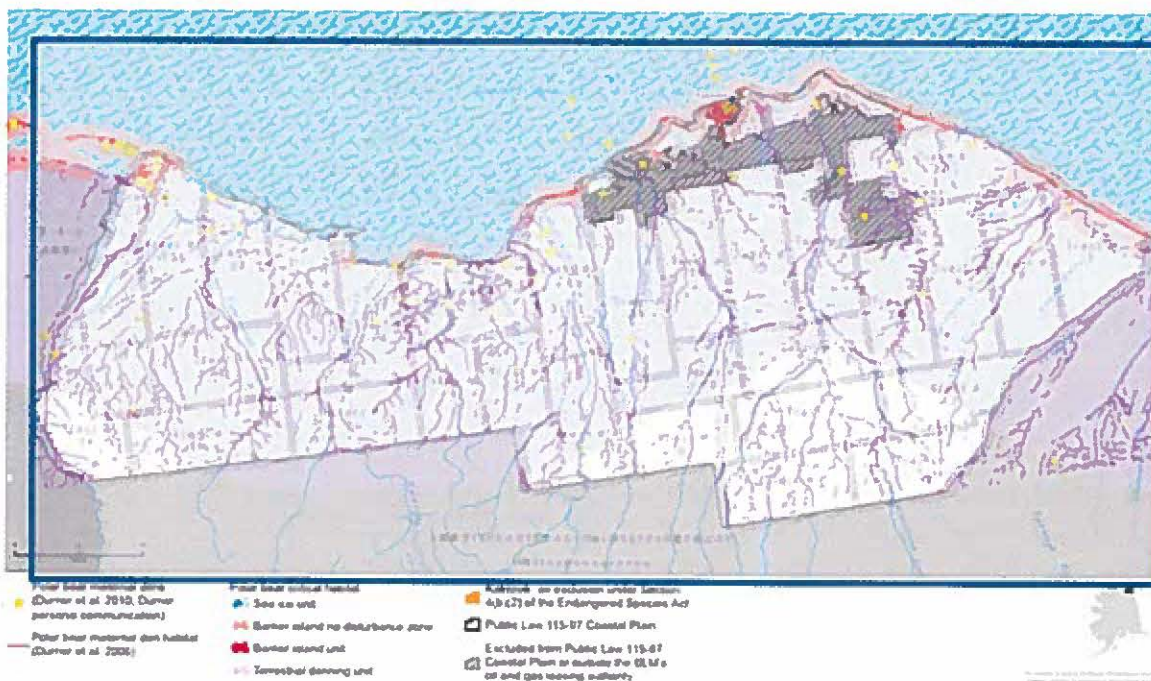
Polar Bear Critical Habitat¹



The majority of the tracts BLM is considering for this lease sale are *entirely* designated critical habitat for terrestrial denning, and therefore require additional analysis prior to leasing.

¹ Reproduced from BLM, Coastal Plain Oil & Gas Leasing Program FEIS, Appendix A, Map 3-37.

At minimum, tracts 3 and tracts 5 through 32 all require special consideration and additional analysis because they encompass polar bear denning designated critical habitat, and indeed the vast majority of those tracts appear to be *entirely* designated critical habitat (see figure below). The Environmental Impact Statement and Biological Opinion do not provide adequate analysis of those impacts. As Sierra Club described in detail in its ESA 60-day Notice of Intent to sue regarding the ESA section 7(a)(2) violations associated with the Record of Decision for the Coastal Plain Leasing Program, BLM cannot lawfully rely on the Biological Opinion to satisfy its 7(a)(2) obligations because, inter alia, the analysis of impacts to designated polar bear critical habitat is deficient, and cannot satisfy BLM's duty to ensure that its actions in deciding what areas to make available for leasing will not result in jeopardy or adverse modification or destruction of critical habitat for the polar bear.

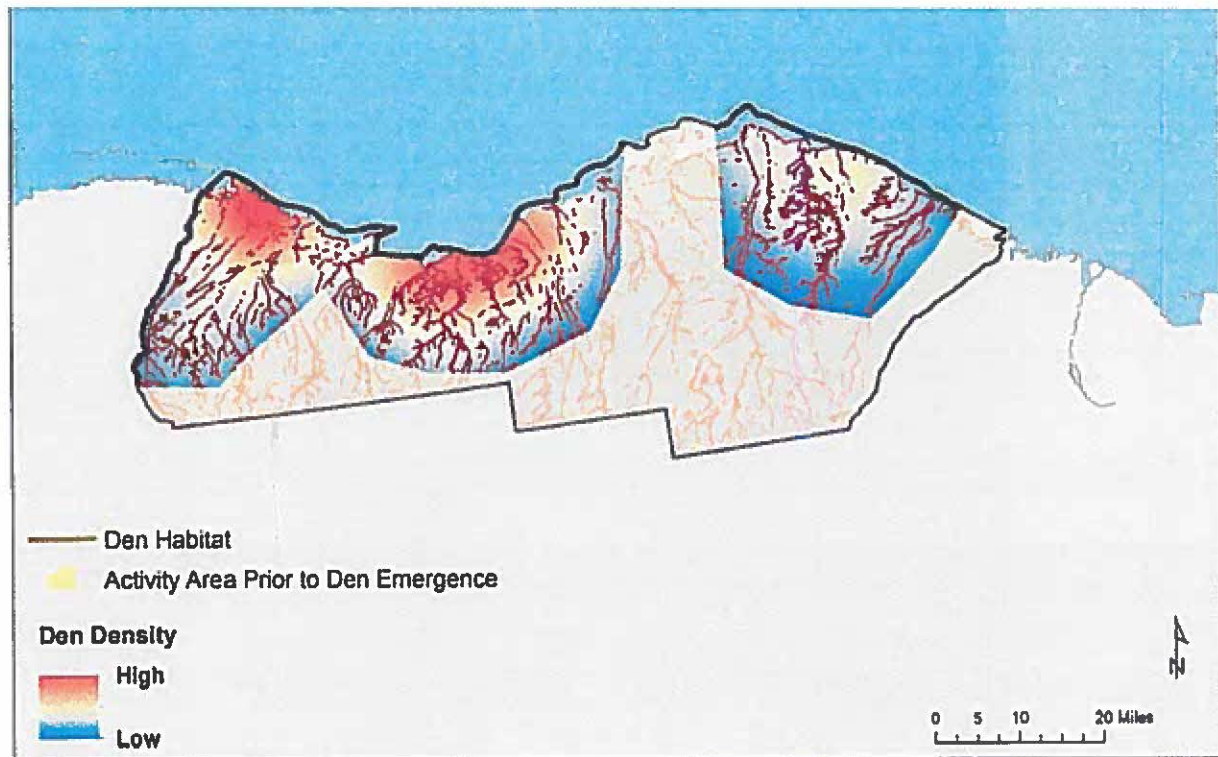


BLM Tract Map Superimposed on BLM Map from FEIS of Polar Bear Critical Habitat²

Furthermore, the U.S. Fish and Wildlife Service itself informed BLM that leasing tracts in specified areas it believes to be polar bear denning “hot spots” will create legal problems due

² Provided for illustrative purposes. BLM should prepare a map and related data to accurately identify the precise overlap between critical habitat and each tract.

to impacts on polar bears that cannot meet the standards of the Marine Mammal Protection Act. In a memo dated April 8, 2019 addressing the proposed Coastal Plain Oil and Gas Program, the Regional Director-Alaska Region of the U.S. Fish and Wildlife Service (FWS) recommended that the Bureau of Land Management exclude from leasing: “Lease blocks that overlap with high to medium polar bear density based off the den density distribution map developed by the Service (attached), as these areas will be problematic for permitting winter activities under Marine Marine Mammal Protection Act.”³ The April 8, 2019 memo from FWS provided this map depicting the location of the high to medium polar bear density areas that FWS recommended be excluded from leasing at that time:



In additional comments from FWS to BLM dated August 9, 2019, FWS stated that all permanent oil and gas facilities should be excluded from being within one mile of all suitable denning habitat within the high-density denning areas shown on the map above, because FWS believed lessees otherwise would not be able to comply with the MMPA. In BLM’s final EIS for

³ See April 8, 2019 FWS letter to BLM (emphasis added) (Attached). For inclusion in the administrative record, copies of the scientific literature and other materials cited in Sierra Club’s comment letter have been provided on a USB thumb drive submitted with the letter.

the Coastal Plain Oil and Gas Leasing program, BLM identifies stipulations (conditions) to apply to leases. Lease Stipulation 1 provides setbacks applicable to “permanent oil and gas facilities” to establish areas with No Surface Occupancy limitations on such facilities. With regard to Lease Stipulation 1, the FWS Regional Director-Alaska Region stated: “We reiterate our recommendation for a one mile buffer for all streams and rivers encompassed by the high density area for polar bear denning as provided in the FWS produced maps. Without these restrictions, it is unlikely that leaseholders will be able to comply with MMPA and/or ESA requirements for polar bears.”⁴ BLM’s response to that comment was merely to assert that “Lease Notice 2” requires operators/lessees to obtain MMPA authorization. BLM’s response does not explain whether or how the Lease Notice will be enforceable in light of BLM’s position, asserted in the final EIS, that it cannot deny authorization for on-the-ground activities that are “necessary” for access.⁵ At no point does BLM or FWS appear to have mapped in published documents what imposing a 1-mile exclusion buffer radially from all points within the many streambanks in the “hotspot” areas that constitute suitable denning habitat would look like in terms of the total areal extent of the area from which permanent facilities would need to be excluded, nor has BLM imposed stipulations to preclude facilities from all of the relevant area without exception.

In fact, in its March 13, 2019 comments on the draft EIS, FWS told BLM that it was concerned that “large areas where numerous polar bear dens have been recorded” were not included in the “NSO” areas of Lease Stipulation 1 as delineated for Alternatives B and C, and that regardless of MMPA Incidental Take Regulations, those areas would be vulnerable to loss of preferred denning habitat due to behavioral avoidance.⁶ Moreover, in comments on Stipulation 5 in the draft EIS, FWS again asserted:

Alternatives B and C do not provide protections for the possible behavioral avoidance of important polar bear denning habitat even with a small development

⁴ See August 9, 2019 FWS comments to BLM at 11 of 56 (comment #29) (Excerpt attached, full document on USB drive).

⁵ See BLM and Cooperating Agency Comments on the Administrative Draft Final EIS at 40, Comment #140 (“Regardless of the buffer width, pursuant to Lease Notice 2 operators will have to obtain MMPA authorization prior to conducting operations in denning habitat. The EIS analyzes a range of alternatives. If Alternative B is the selected alternative in the Record of Decision, then the decision maker may select mitigation measures from other alternatives as necessary.”) (Excerpt attached, full document on USB drive).

⁶ See March 13, 2019 FWS Comment Letter at 4 (Excerpt attached, full document on USB drive).

footprint. Alternative D allows polar bears unhindered access to large areas of their preferred denning areas in the Coastal Plain. This will become increasingly important as the density of land-based dens increases in future years due to sea ice loss.⁷

For Alternatives B and C, the only requirement/standard imposed on lessees by Lease Stipulation 5 is to “Comply with ESA and Marine Mammal Protection Act (MMPA) requirements.” By contrast, under Alternative D, Lease Stipulation 5 would have barred permanent facilities from being within 1 mile of potential denning habitat mapped by Durner et al. (2006) for areas between the coast and 5 miles inland. It would also have barred activities from those areas between October 30 and April 15th. Thus it is clear that FWS considered that the NSO restrictions of Stipulation 1 under Alternative B, *even with the requirement to comply with the ESA and MMPA* of Stipulation 5 under Alternative B, were not sufficient to ensure the “unhindered access” that Alternative D would afford, and which is an important feature of designated terrestrial denning critical habitat.

Notably, prior to the date that the BiOp was finalized, two scientific studies were published that are highly relevant to evaluating the impacts of seismic surveys on maternal polar bears denning on the Coastal Plain and their cubs, yet the BiOp failed to mention them at all, or to address them. The first is a study by FWS scientist Ryan Wilson and USGS scientist George Durner that presents a model for quantitatively evaluating the impacts to denning mothers and cubs specifically on the Coastal Plain from an area-wide seismic survey, taking into account the impact of mitigation measures such as time and place restrictions, and den-locating technologies (aerial Forward Looking Infrared (“FLIR”) detection surveys).⁸ The omission of any mention of this model is astonishing given that FWS held a public comment period on the application of the model to its decision-making under the MMPA and ESA, and that the FWS comment period opened about a month prior to the time that FWS finalized the BiOp on March 13, 2020.⁹ It is also astonishing in light of the fact that the model appears to have been developed in the course of FWS evaluating an application by SAExploration for MMPA authorization for an area-wide

⁷ See March 13, 2019 comments at 8 (emphasis added) (Excerpt attached, full document on USB drive); see also FEIS Appendix S at S-355, Row # 515, Comment #39.

⁸ Wilson, R.R. and Durner, G.M. (2020), Seismic Survey Design and Effects on Maternal Polar Bear Dens. Jour. Wild. Mgmt., 84:201-212. doi:10.1002/jwmg.21800. First published: December 11, 2019.

⁹ See 85 Fed. Reg. 8887 (Feb. 18, 2020).

seismic survey of the Coastal Plain proposed in 2018.¹⁰ Despite seeking comment on the model, FWS finalized the BiOp without addressing the model in any manner, and without even waiting for the comments it had elicited.

The second paper, by Tom Smith et al., is a study published on February 27, 2020 evaluating the success rate for FLIR polar bear den detection surveys, and concluding that 55% of maternal dens confirmed to be present were not detected by FLIR surveys.¹¹ The Smith paper illuminates that the impacts quantified by the Wilson and Durner model likely underestimate actual impacts by overestimating the success rate for FLIR surveys. Had FWS actually evaluated the Wilson and Durner model, and the Smith paper, FWS could have quantitatively assessed the impacts of an area-wide seismic survey proceeding in the high-density denning areas, and indeed could have utilized the best available scientific information from previously published studies to evaluate the range of risks taking into account factors omitted by Wilson and Durner.

The Wilson and Durner study shows that, even making many optimistic assumptions that may underestimate impacts, for a large section of the high hydrocarbon potential area identified by BLM, seismic surveys likely cannot comply with the MMPA unless they take place after April 12th for one high density denning area, and after April 19th for the second high density denning area. As seismic surveys must take place during winter to avoid damage to tundra, this makes it highly questionable whether the necessary snow conditions will persist long enough for the areas to be surveyed, especially since climate change has shortened open tundra periods and resulted in closures during recent years in areas near the Coastal Plain of the Refuge. As a recent scientific study summarized, based on information from the Northern Oil & Gas Team of the Alaska Department of Natural Resources: “The winter travel season in the foothills of the central

¹⁰ The Wilson and Durner study used the proposed area-wide seismic survey plans submitted to BLM by SAExploration to set-forth the spacing for the survey in their model. *See* Wilson and Durner (2020) at 204, 208: “Proposed seismic surveys in the 1002 Area state that receiver and source lines will be spaced at intervals of 200m (SAExploration 2018)... This pattern would continue across the entire study area, leading to a maximum footprint depicted by a 200□m×200□m grid (Fig. 1).”; “For our analysis, we assumed that seismic grids would be spaced at intervals of 200 m, which has been proposed for the 1002 Area (SAExploration 2018).”

¹¹ Smith TS, Amstrup SC, Kirschhoffer BJ, York G (2020), Efficacy of aerial forward-looking infrared surveys for detecting polar bear maternal dens. PLoS ONE 15(2): e0222744. <https://doi.org/10.1371/journal.pone.0222744>.

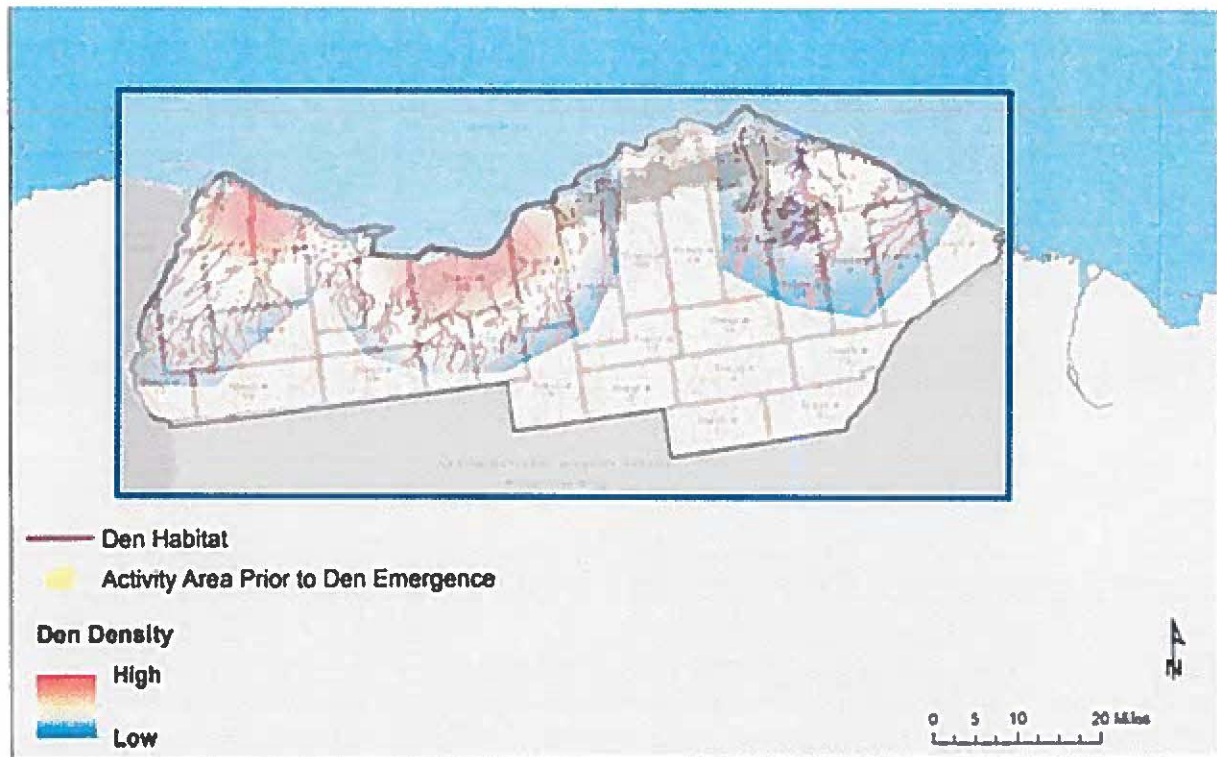
North Slope has dropped below 100 d, and snow cover did not reach adequate depth (23 cm) for ADNDR [Alaska Department of Natural Resources] to open for travel there in 3 of the last 16 yr. Neither the upper nor lower foothills had enough snow to be opened during the winter of 2018–2019, the winter when SAExploration intended to start seismic surveys in the 1002 Area.”¹² Thus there is good reason to think that snow conditions sufficient to protect tundra will not persist in the early spring.

Thus, for those extensive areas, the restrictions needed to avoid lethal or injurious take would require that the seismic surveys be delayed until a point in the season where snow conditions likely will preclude actually completing the surveys.¹³ Thus, complying with the timing requirements legally necessary to avoid impermissible risks of survival-impairing impacts to cubs means that seismic exploration may be precluded as practical matter on lease tracts that are entirely or substantially within those areas.

Tracts 22, 23, 30, and 31 appear to be almost entirely in the two “high-density to medium density” denning hotspots FWS identified in its April 2019 map, with tract 23 appearing to be entirely in the “high-density” portion of the hotspot. Tract 28 is within the third “medium density” denning hotspot shown on the eastern side of the Coastal Plain in the Fish and Wildlife Service map above.

¹² Raynolds, M. K., J. C. Jorgenson, M. T. Jorgenson, M. Kanevskiy, A. K. Liljedahl, M. Nolan, M. Sturm, and D. A. Walker. 2020. Landscape impacts of 3D-seismic surveys in the Arctic National Wildlife Refuge, Alaska. *Ecological Applications* 00(00):e02143. 10.1002/eap.2143, at 8.

¹³ See Wilson and Durner at 206 (“[I]f snow conditions deteriorated early in the season, those areas could miss being surveyed....[the restrictions] on the timing of when activity can occur across the study area... could be problematic if snow conditions deteriorated earlier in the season.”).



BLM's Tract Map Superimposed on the 2019 FWS Denning Density Map¹⁴

BLM should not be leasing parcels when the Fish and Wildlife Service has already told it that lease activities on those parcels will be a problem to authorize due to impacts that would violate the Marine Mammal Protection Act (MMPA). Leasing these parcels would plainly be arbitrary and capricious, and unlawful, because the Biological Opinion for the Leasing Program ROD predicated its finding of “no jeopardy or adverse modification of critical habitat” for polar bears on BLM ensuring that no on-the-ground activities on leases will take place prior to the operators/lessees obtaining MMPA authorization from FWS to ensure activities will comply with the MMPA. Yet, FWS informed BLM that such compliance will be “problematic” for the areas described above, indicating that BLM would not be able to authorize the activities entailed in exploration and development of those tracts unless BLM violates a condition on which FWS’s “no jeopardy” determination for the Leasing Program ROD was *expressly* predicated. In short,

¹⁴ Provided for illustrative purposes. BLM should prepare a map and related data to accurately identify the precise overlap between the areas that FWS identified as “problematic” and the tracts.

BLM would be selling leases for which it knows, or should know, that it will be unable to issue authorizations for basic exploration and development activities. Further, BLM cannot rationalize this action by taking the position that the exploration and development activities could proceed regardless. BLM's repudiation of its authority to deny authorizations, and enforce the vital condition on which the "no jeopardy" determination for the Coastal Plain Leasing Program depends, eviscerates its ESA section 7(a)(2) compliance. BLM cannot lawfully or rationally rely on the requirements of Lease Notice 2 to satisfy its ESA obligations while simultaneously calling into question its authority to enforce that requirement. In sum, the available facts indicate that exploration and development of these parcels cannot proceed lawfully. To date, DOI appears to have failed to undertake the analysis necessary to show otherwise.

If you have any questions about this submission, please contact me at the phone number or e-mail address below.

Sincerely,



Karimah Schoenhut
Staff Attorney
Sierra Club
Environmental Law Program
50 F St NW, Eighth Floor
Washington, DC 20001

[Due to COVID-19 closures, I do not have regular access to this office at present. Please contact me by e-mail or phone for an alternative mailing address.]

202-548-4584

karimah.schoenhut@sierraclub.org

ATTACHMENTS

April 2019 FWS Letter



United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE
1011 East Tudor Road
Anchorage, Alaska 99503-6199




IN REPLY REFER TO:

FWS/R7/FES

APR 08 2019

Memorandum

To: Bureau of Land Management, Project Manager Coastal Plain Oil and Gas Leasing Program Environmental Impact Statement

From: Regional Director – Alaska Region 

Subject: Recommendations for No Leasing areas to create an 800,000 acre alternative in the 2018 Draft Environmental Impact Statement (DEIS) for the Coastal Plain Oil and Gas Leasing Program for the Arctic National Wildlife Refuge, Alaska

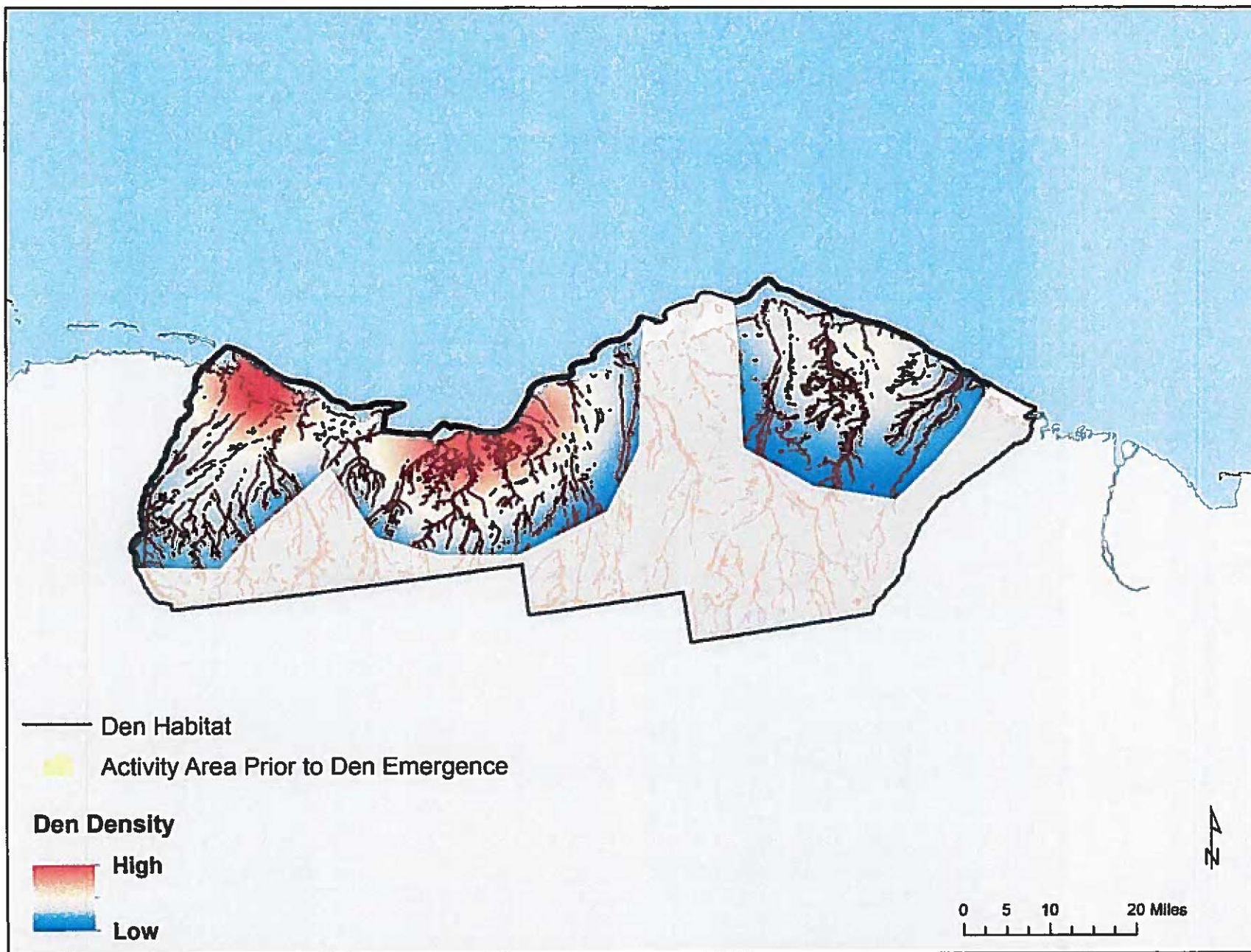
The U.S. Fish and Wildlife Service (Service) considered the Bureau of Land Management's (BLM) request for identifying lands that could be made unavailable for leasing (No Leasing, NL) in order to include an alternative in the Arctic Refuge Coastal Plain EIS that makes 800,000 acres available in this program. It is the Service's recommendation that a new alternative be drafted, rather than modifying Alternative D1 and D2 in particular. We view the benefits of NL compared to No Surface Occupancy (NSO) as reducing impacts from exploration activities, having less potential for damage to subsurface resources important to the Arctic Refuge including groundwater, soils and permafrost, and eliminating the potential for exceptions to NSO restrictions. With that in mind, our recommendations for NL areas include:

1. All areas currently identified as NL under Alternative D2 which includes caribou and spring/aufeis habitats;
2. Lease blocks that overlap with high to medium polar bear denning density based off the den density distribution map developed by the Service (attached), as these areas will be problematic for permitting winter activities under Marine Mammals Protection Act;
3. Areas that provide important caribou habitat, including calving and post calving:
 - a. Lands under Alternative D2 that have timing and surface occupancy limitations under Leasing Stipulation 8 (blue area on Map 2-7), with the lease blocks further east and closer to the NL calving area being the priority;
 - b. Caribou calving and post-calving habitat: all lands located east of and including the eastern one-half of T06NR37W, T07NR37W, and T08NR37W, (including much of the isolated yellow block on Map -7);

- c. Post-calving and subsistence harvest areas along the coast not included in polar bear habitat described above, with a minimum buffer of 2 miles inland. Priority areas are the coastline of the Camden Bay and coastal areas east of the mouth of the Niguanak River.
- 4. Buffers identified in Alternative D2 as NSO along rivers under Leasing Stipulation 1 to protect multiple resources including wild and scenic river suitability; other scenic values, subsistence, habitat and wilderness characteristics associated with river corridors. As mentioned in the Service's comments on the DEIS, viewshed analyses could help quantify the necessary buffer distance, and NL areas could be based off that value;
- 5. Expansion at or above lands adjacent to springs in order to minimize potential for groundwater contamination or disruption of flow.

In order to meet your requested timeline, we did not quantify or prioritize the above recommendations, but are happy to work with the BLM and their contractors as you consider these priorities to determine appropriate lease blocks for meeting the goal of 800,000 acres.

For questions regarding these recommendations please contact our Arctic Program point of contact from Ecological Services, Mr. Drew Crane, at the Anchorage Regional Office at 907-786-3323 or via e-mail at drew_crane@fws.gov.



March 13, 2019 FWS Comments (Excerpt)



IN REPLY REFER TO

FWS/R7/FES/DCN 069757

United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE
1011 East Tudor Road
Anchorage, Alaska 99503-6199



MAR 13 2019

Memorandum

To: Nicole Hayes, Bureau of Land Management, Project Manager Coastal Plain Oil and Gas Leasing Program EIS

From: Regional Director – Alaska Region *Angela E. Saito*

Subject: Comments on the 2018 Draft Environmental Impact Statement (DEIS) for the Coastal Plain Oil and Gas Leasing Program for the Arctic National Wildlife Refuge, Alaska

The U.S. Fish and Wildlife Service (Service) appreciates the opportunity to review the Bureau of Land Management's (BLM) DEIS for the proposed Coastal Plain Oil and Gas Leasing Program in the Arctic National Wildlife Refuge (Arctic Refuge) for which we are a cooperating agency pursuant to the National Environmental Policy Act (NEPA).

Our comments and recommendations are provided in accordance with the NEPA, Alaska National Interest Lands Conservation Act (ANILCA), National Wildlife Refuge System Administration Act as amended by the National Wildlife Refuge System Improvement Act, Endangered Species Act, Marine Mammal Protection Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Fish and Wildlife Coordination Act, Wild and Scenic Rivers Act, and Public Land Order 2214.

For the last year, we have worked with the BLM on development of alternatives to help ensure that all purposes of the Arctic Refuge as outlined in the Public Land Order and ANILCA, as currently amended, are met. The ANILCA purposes are:

- (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, the Porcupine caribou herd (including participation in coordinated ecological studies and management of this herd and the Western Arctic caribou herd), polar bears, grizzly bears, muskox, Dall sheep, wolves, wolverines, snow geese, peregrine falcons and other migratory birds and Arctic Char and Grayling;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents;

(iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge."; and

(v) to provide for an oil and gas program on the Coastal Plain

The Tax Act of 2017 added the fifth purpose for the Arctic Refuge, and the DEIS examines alternatives for implementing that purpose. The Service is required to manage refuge lands and waters in a way that is consistent with all purposes. To meet this requirement, the consistency of all Alternatives with the other purposes of the Arctic Refuge is important. We believe the DEIS can be improved by a more explicit analysis and comparison of the impact of the alternatives on the achievement of each of the purposes of Arctic Refuge.

Alternative D2 contains the primary elements put forth by the Service during the alternatives workshop for cooperating agencies, and is our preferred alternative for meeting all of the purposes of the Arctic Refuge and best preserving the wilderness characteristics provided for in ANILCA. Alternative D2 also helps ensure management interests and requirements to maintain river values (free flow, water quality, outstandingly remarkable values) and preliminary river classifications of river corridors determined to be suitable additions to the National Wild and Scenic River System (NWSRS) in this area are maintained. Additionally, Alternative D2 is also the most consistent with the Endangered Species Act (ESA), the Marine Mammal Protection Act (MMPA) and bilateral and international agreements. The modifications recommended in the attachment include specific Stipulations (Stips) and Required Operating Procedures (ROPs) that help improve upon the work that has been done.

In order to aid the BLM's NEPA review process, we provide comments and recommendations that are more detailed in the Attachment. Please accept these review comments in the spirit of improvement. Our comments are organized into three sections:

- Section 1: General Comments;
- Section 2: Comments on Proposed Stipulations and ROPs; and
- Section 3: Specific Comments.

Thank you for your continued coordination. We appreciate and value our cooperating agency status on this project, as the Service has managed the Arctic National Wildlife Refuge and its resources for several decades and has information and expertise that is valuable in formulating a final EIS that can withstand the scrutiny of legal sufficiency. For questions regarding these recommendations please contact our Arctic Science Program Coordinator Dr. Wendy Loya at the Anchorage Regional Office at 907-786-3532 or via e-mail at wendy_loya@fws.gov.

Attachment

U.S. Fish and Wildlife Service Cooperating Agency Review, Arctic National Wildlife Coastal Plain Oil and Gas Leasing Program Draft Environmental Impact Statement

Section 1: General Comments

Many issues identified during scoping have been included in the Draft Environmental Impact Statement (Draft EIS or DEIS), which improves the analysis of potential resource impacts. However, there are several aspects of the analysis that with additional attention can help ensure the adequacy of the final Environmental Impact Statement (EIS). Our key general concerns for the project are described below:

- As the land and surface estate manager, the Service would like the importance of consultation between the BLM Authorized officer and the Service in implementing the oil and gas program to be more explicit when access to the subsurface may affect the surface resources managed by the USFWS. We recommend that relationship be defined in Section 1.7 and throughout Section 2. We suggest the following language: "Where oil and gas program activities may affect surface resources managed by the USFWS, the BLM Authorize officer will consult with the USFWS to reach consensus on decisions. This can include approval of a variety of instruments for activity implementation, including but not limited to plan approval, permits, exceptions, modifications, and waivers." Additionally, Table 2-2 on page 2-4 should be revised where it states that exceptions could be made by the Authorized Officer to indicate that exceptions would be made by consensus of the BLM Authorizing Officer and the USFWS designated Officer when pertaining to surface resources managed by the USFWS. Consensus would not apply to decisions relating to oil and gas activities that do not affect surface resources managed by the USFWS. We look forward to working together to make this program successful.
- Given the overlap of potential lease blocks and polar bear denning habitat, we recommend ensuring that surveys of polar bear denning habitat are required under all alternatives and development scenarios. We also emphasize that it would be important to ensure that all potential lessees are aware that they will have to consider the need to avoid disturbance of denning polar bears when they consider the temporal and spatial aspects of their operations. The impact of those temporal and spatial considerations on their operations will depend on the degree of overlap of specific lease blocks with denning habitat and the location of detected dens in any given year.
- The analysis and area estimates for 3-D seismic used in the Reasonably Foreseeable Development Scenario are now based on the incorrect assumption that area-wide seismic would occur prior to the Record of Decision. This affects the impact analysis throughout the document. Further, the analysis evaluates the assumption that only about 35% of the project area (900 sq. miles) will be surveyed using 3-D seismic. This estimate originates from typical 3-D survey operations in the NPR-A. However, it is unlikely these efforts are comparable with proposed seismic plans in the project area. For example, Walker et. al (2019) assumed the entire project area would be explored and estimated a total of 37,800 miles of seismic lines could impact an estimated 235 sq. miles with long-term impacts. The document mentions that seismic exploration will be further detailed in the seismic Environmental Analysis, but the assumed timing presented in Table B-3 is highly uncertain. Details and analysis regarding seismic exploration in the program area should be evaluated and revised in this document.
- The introduction overview states that the issuance of an oil and gas lease does not have any direct effects on the environment since it does not authorize drilling, or any other ground disturbing activities; however, a lease does grant the lessee certain rights to drill for and extract oil and gas

subject to reasonable regulation, including applicable laws, terms, conditions and stipulations of the lease. Given our recent experience examining a proposal to conduct seismic operations in the 1002 Coastal Plain, we believe it is important that lessees understand that there may need to be significant temporal and spatial conditions placed on activities that overlap in time and space with polar bear denning habitat. Such conditions are necessary to ensure compliance with the ESA and MMPA. We believe this information should influence BLM's decision of which tracts of land should be offered for lease and the terms and conditions to be applied to such leases and subsequent authorizations for oil and gas activities.

- The DEIS should clarify the criteria used to define the area of high hydrocarbon potential, given that the Tax Act requires that "each sale offer for lease at least 400,000 acres of the highest hydrocarbon potential (HCP) lands within the Coastal Plain." Specifically, it is not clear how the DEIS arrives at delineating an area of moderate potential and how this area meets the high HCP criteria set forth in the Tax Act for lease sales. The USGS resource assessment of the 1002 Area (USGS 1998) delineates only high and low resource potential areas, associated with the deformed and undeformed areas to either side of the Marsh Creek Anticline. According to the values from the USGS reproduced in the Draft EIS as Appendix B Table B-1, nearly 85% of the in-place oil is in the undeformed area and only about 15% is within the deformed area.
- The DEIS could better address strategies to prevent introduction and spread of invasive species. To address invasive terrestrial plants, the Required Operating Procedures (ROPs) should recognize the use of, and include additional information about, certified weed-free gravel and supplies for road corridor construction and pipeline construction. Additionally, the document does not adequately address the threat of introduced aquatic invasive species (e.g., Elodea), invasive terrestrial invertebrates, or invasive terrestrial vertebrates (e.g., rodents). The DEIS should also describe how the proponent will respond to an introduction of nonnative species.
- We recommend adding a ROP under all alternatives the requirement for development of spill response plans. This is currently only found under Stipulation 4, Alternative D, Standard iv. Our recommended standard/requirement is as follows: Operators would be responsible for developing comprehensive spill prevention and response plans, including Oil Discharge Prevention and Contingency Plans and spill prevention, control, and countermeasure plans as well as to maintain adequate oil spill response capability to effectively respond during periods of ice, broken ice, or open water. Plans should be based on the statutes, regulations, and guidelines of the EPA, Alaska Department of Environmental Conservation (ADEC), and the Alaska Oil and Gas Conservation Commission (AOGCC), and well as ROPs, stipulations, and policy guidelines of the BLM and USFWS.
- The effects of a changing arctic environment should be further addressed within the EIS. There is a large body of literature that describes the potential landscape level changes on the North Slope, including changes in permafrost, hydrology, land cover and infrastructure stability. For example, a recent study by Hjort et al. 2018 indicates that the effects of permafrost melt will be an engineering hazard to infrastructure by mid-century. Additionally, there are specific effects related to environmental change such as ice wedge degradation leading to subsidence and changes in hydrology, snow accumulation and plant communities (Jorgenson, M. T., Shur, Y. L., & Pullman, E. R. 2006; Reynolds et al. 2014). Effects of these changes have been shown to be more severe in areas with topographic complexity such as the 1002 coastal plain (Liljedahl et al. 2016). We recommend that studies like these be included in the analysis of potential impacts to various development scenarios. Additional information on this topic can also be found in Jorgenson et al. 2016, Frost et al. 2018 and Kanevskiy et al. 2017.

- The Reasonably Foreseeable Development Scenario and associated analyses used in alternatives development does not provide any differentiation between jobs creation, employment income, revenue to communities or government entities, or recovery/production of oil and gas resources. As such, the assumption is that these factors are held constant regardless of the alternative selected. Therefore, the BLM should primarily base their alternative selection on the differing environmental consequences identified in the analyses under the action alternatives. The Service's preference for Alternative D2 as the Environmentally Preferred Alternative is supported by the requirements and standards provided in the DEIS for stipulations and ROPs.
- The Marsh Fork-Canning, Hulahula, and Kongakut Rivers were found to be eligible and suitable for inclusion in the National Wild and Scenic River System, as noted in the DEIS. All Stipulations and ROPs should strive to not affect the Wild and Scenic characteristics and values of these rivers. We have noted specific suggestions in the sections 2 and 3.
- We recommend including information referred to in other NEPA documents (e.g. Greater Mooses Tooth-2 FEIS, National Petroleum Reserve Area (NPRA) Integrated Activity Plan/EIS) in the appendices so that when information found within these documents is used or referenced within the EIS, it is easily accessible and it is clear what information is being referenced. We also suggest that all references to other regulatory documents include chapter or page numbers to guide the reader to the appropriate information.
- Throughout the DEIS there are requirements that applicants will need to monitor, assess, and evaluate the effects of development activities on the resources of the Arctic Refuge. In all of these instances, the data and analyses should be provided to the USFWS and BLM for their records. Data should be provided in electronic format and be accompanied by complete metadata and information about collection and analysis methodology.
- Arctic Refuge Special Use Permits authorize private businesses to operate commercial hunting, fishing, recreation, polar bear viewing, and general visitor access to the 1002 coastal plain area. All alternatives should address impacts to the operations of these private businesses and their continued viability.

Section 2: Comments on Stipulations and ROPs

Stipulation 1: Rivers and Streams

- In a manner similar to the NPRA FEIS/IAP, we recommend that river setbacks be used to meet the objectives stated in Stipulation 1, which include the other Refuge purposes. Alternative D reflects the Service's recommended minimum of 0.5 mi setback for all identified rivers, while we also identified greater setbacks for larger rivers, which we believe are necessary and appropriate to protect the other purposes of the Refuge as well as Wild and Scenic River values. The recommendations are similar to setbacks used for important habitat and subsistence-use rivers and riparian areas in NPRA. Exact setback distances necessary to meet the objectives could be refined by further quantitative analyses of viewshed, soundscape and the Reasonably Foreseeable Development Scenario. Overlaying river setbacks on the viewshed study submitted by TrueNorth GIS suggests that Alternative D would minimize impacts on approximately 25% more land through NSO than the other alternatives, better protecting the species, habitats and activities identified in the Refuge purposes while allowing for oil and gas development through full access to hydrocarbons through subsurface leasing. We recommend that all rivers have minimum setbacks of 0.5 mi under Alternatives B and C to meet other Refuge purposes, except for spring-fed rivers, which should have minimum setbacks of 1 mile to protect these important, unique habitat features. We believe this change is necessary to ensure that Alternatives B and C are compatible with the purposes of the Arctic Refuge as stated in ANILCA.
- Analysis by Service staff, using available viewshed information conducted by True North GIS and submitted to the BLM for consideration in the DEIS, shows most infrastructure with a maximum of 15m height would be visible if built within any of the setbacks for the six rivers as described currently in Alternatives B-D. Our analysis shows Alternative D (with approximately 750 km of the Coastal Plain protected by NSO setbacks on the six named rivers) provides complete viewshed protections for just under 12% of the project area (where infrastructure of any height would otherwise be visible from the rivers). Further, an additional 23% of the viewsheds from these six river corridors are protected when infrastructure is modeled to be at or below 15m in height, as specified in Alternative D. (see personal communication Paul Leonard, "Re-analysis of Viewshed Modelling for the Arctic Refuge's Coastal Plain Major Rivers.")
- Given the high use of the Coastal Plain for denning by polar bears, especially when compared to the rest of northern Alaska, ensuring bears have access to preferred areas of denning habitat is important. This is highlighted by the fact that terrestrial denning is likely to continue increasing as sea ice conditions deteriorate further in future years. While Alternatives B and C provide some protection of high use polar bear denning habitat under Lease Stipulation 1, there are large areas where numerous polar bears dens have been recorded (Map 3-24) that do not have restrictions on surface occupancy under these alternatives. Even if surveys were conducted under MMPA Incidental Take Regulations with the intention of reducing the potential to disturb denning bears in those areas, Incidental Take Regulations (and hence Stipulation 5 for Alts B and C) would offer no protections against behavioral avoidance of those areas once developed. This could effectively lead to a loss of preferred denning habitat. Stipulation 1 under Alternative D protects a much broader area of important, and highly used denning habitat than the other alternatives, especially in the central portion of the Coastal Plain. We believe application of this Stipulation across alternatives B and C would be more consistent with all of the purposes of the Arctic Refuge, the MMPA and BLM's responsibility under Section 7(a)(1) of the ESA.
- We recommend that appropriate Stipulations and ROPs to minimize impacts to Wild and Scenic River characteristics (e.g., maintaining water quality, free-flowing condition, identified

Outstandingly Remarkable Values (ORVs), and wild classifications) be applied whenever activities may affect a river's Wild and Scenic River characteristics.

- Requirement/standard(s) should be added that prohibits infrastructure within maximum perceptible visible distances (e.g: how far an individual person would be able to see from any place inside a river buffer); or above heights that an individual person (spatially) is likely to be able see. Additional analysis should be completed to determine the area extent of the infrastructure prohibitions/height limitations.
- Protecting natural quiet (as well as natural sounds and noise) is inherent to preserving river values for suitable rivers classified as wild and possessing recreational and cultural ORVs. We recommend that Requirement/Standard(s) should be added across alternatives B-D that provides acoustic protections for natural quiet from within suitable river corridors.
- We recommend adding a Requirement/Standard(s) under Oil and Gas Field Abandonment, across alternatives B-D that specifies all eligibility findings and suitability factors as specified in the Arctic Refuge wild and scenic river review should be restored to a point where the area is again qualified for inclusion in the National Wild and Scenic River System.
- We recommend adding an additional Requirement/Standard(s) that reads: Before activities affecting suitable Wild and Scenic river corridors can occur, collection of baseline data that documents current suitable river characteristics will be completed as prescribed by the Authorizing Officer and in consensus with the USFWS as the surface management agency. This information will be used to monitor impacts, detect when National Wild and Scenic River System values are threatened, and identify needs for changes in practices. The lessee is to provide support for these efforts to help monitor and analyze effects on suitable river values and wild classification.
- The Requirement/Standard(s) should be designed to specifically maintain characteristics of the recreation and scenic ORVs for the Kongakut River, even though it is outside the project area. GIS modeling should be completed to determine whether/to what extent a setback within the eastern boundary of the project area would be needed to maintain viewshed characteristics of the scenic ORV for the Kongakut River.
- Alternatives B-D prohibit permanent oil and gas facilities (gravel pads, roads, airstrips, pipelines) within certain river corridors; and on a case-by-case basis allow pipeline and road crossings deemed essential to cross through setbacks. This threatens the tentative wild classification of suitable rivers. We recommend changing requirement/standard wording for and the HulaHula river under all alternatives to include the following language: "(NSO) No permanent oil and gas facilities are allowed in the streambed and within the setback distances to protect Wild and Scenic River characteristics." Alternatives B-D seek to "minimize the disruption of free flow" but language should specify that *maintaining* free flow is required to meet Service interim management requirements for suitable rivers.
- Preservation of recreational hunting, fishing, hiking and boating values and opportunities is an original purpose of the Arctic Refuge, and the majority of visitors recreate within the project area. In order to meet the original purpose of this area, an objective for Alternatives B and C should be to minimize impacts on recreation.
- The Canning, Marsh Fork-Canning (main tributary of the Canning), Hulahula, and Kongakut Rivers are highly valued and/or used by the public for recreation. The objective of this stipulation should include preservation of Recreational Outstandingly Remarkable Values as described for the Marsh

Fork-Canning, Hulahula and Kongakut Rivers, and include requirement/standards consistent with USFWS interim management prescriptions for suitable rivers.

- We recommend deleting the last sentence in the objective "Protect the water quality, quantity....across the coastal plain", and include "springs and aufeis" in the first sentence following "riparian areas".
- While Sadlerochit Springs appears to be within the Sadlerochit River, it is actually west of the Sadlerochit River and is a tributary to the Itkilyariak River. We recommend that Sadlerochit Springs and Creek, and Itkilyariak Creek-complex have a 3-mile setback in all alternatives in Leasing Stipulation 1 due to its cultural significance and unique terrestrial and aquatic communities. The Sadlerochit Spring Creek and Itkilyariak Creek complex have a unique endemic population of dwarf Dolly Varden and is an important subsistence use area. For more information see Arctic Refuge CCP (2015).
- To meet the objective for Stipulation 1 and meet the other identified Refuge purposes, gravel mining sites should not be allowed in areas designated No Surface Occupancy.
- It is difficult to address the adequacy of a standard that allows case-by-case approvals for development in nearshore waters when the objective is to protect habitat. The standard's adequacy will remain unknown until we know more about what will be approved and how those developments will fare over time. The standard states "exploratory drill pads, production pads, or CPFs are not allowed unless they're approved" which imparts significant subjectivity. We recommend the EIS provide additional clarity on how case-by-case approvals may occur and how they will be decided. Additionally, we recommend including a requirement that approvals will be reached by consensus between the BLM Administrative Officer and an authorized Service representative.

Stipulation 2: Canning River Delta and Lakes

- Water resources in the Canning River Delta, including lakes, represent some of the highest quality wetland habitat within the Refuge. Unlike the coastal plain ecosystems to the west of the Refuge, the Refuge Coastal Plain has considerably fewer lakes. Therefore, lakes in the Canning River delta provide important habitat for fish and waterbirds that is not widespread in the project area. Protection of these habitats from disturbance is required to conserve fish and wildlife populations and habitats in their natural diversity and ensure water quality and quantity within the refuge is maintained. We previously recommended No Surface Occupancy be allowed in this area except for essential infrastructure approved by the BLM and with consensus from the Service. This requirement is currently supported in Alternative D, and should be applied to alternatives B and C to help maintain the other ANILCA purposes of the Refuge.

Stipulation 3: Springs/Aufeis

- We recommend adding NSO buffers and no lease setbacks as described in Alternative D to all alternatives. Alternatives B and C may not meet the other purposes of the Refuge without this requirement, including significant impacts to fish and wildlife populations and habitats in their natural diversity, the opportunity for continued subsistence uses, and water quality and quantity. Rivers in the Arctic Refuge with perennial springs support fish during the harsh winters, and rivers without springs have no fish. All Arctic Grayling and Dolly Varden are major subsistence resources in the Arctic Refuge, and their survival depends on approximately twenty springs found within the coastal plain and adjacent foothills, thus they are truly critical habitats. Only four rivers that cross the 1002 Area support major anadromous or endemic fish populations, requiring special recognition.

Subsurface flow paths to perennial springs are unknown and could potentially be disturbed by drilling or fracking activity. This universal stipulation is needed to ensure that these important and unique habitats and water resources are protected per ANILCA purposes of the Refuge, while accounting for uncertainty regarding sources and flowpaths of groundwater in the Coastal Plain.

- Specific protective setback distances from springs and aufeis should exist, but not be defined until studies of spring flows and sources are completed, as flow to springs may originate outside of a 3-mile setback. Flows to springs likely traverse or originate in groundwater beneath permafrost; this groundwater is identified as the recipient water body for potentially toxic drilling wastes via injection wells. Studies of springwater flows, including sources, should accurately identify and delineate surface water and groundwater flow to and from springs; these flow patterns may be linear (channels) or large areas (aquifers) that require differently shaped buffers. Delineating specific protective buffers prior to these studies are completed may result in buffers that are insufficient to protect these important aquatic habitats. To help ensure the other purposes of the refuge are met, we recommend that the Requirement/Standard for Stipulation 3 be changed under all alternatives to: "Before exploratory or production drilling, the lessee/operator/owner would conduct studies to ensure drilling would not disrupt flow to or from, and waste injection wells will not contaminate any perennial springs. Study plans would be developed in consultation with the BLM, USFWS, and other agencies, as appropriate." Under all alternatives, the following phrase should be added after all delineated buffers referring to "above" springs: "or to a distance that sufficiently protects groundwater sources and flows of (the named spring), whichever is greater."

Stipulation 4: Nearshore Marine, Lagoon, and Barrier Island Habitats of the Southern Beaufort Sea within the Boundary of the Arctic Refuge (Map 2-2 and Map 2-4)

- Due to the abundance, diversity and accessibility of subsistence resources in the nearshore area, this zone is a significant subsistence hunting area. Alternative D requirements to coordinate with local users represents best-practices developed for NPRA and the Chukchi Sea leasing programs and should be applied consistently when subsistence resources may be impacted.
- As polar bear use of the onshore environment increases in summer/autumn due to sea ice loss, it will become increasingly important to reduce human-polar bear conflict, ultimately leading to reductions in polar bears killed in defense of life. While all alternatives provide good protections for polar bears on barrier islands, Alternatives B and C are insufficient to minimize human/bear conflict when bears are active on the mainland coast. Bears move up and down the coastline during summer and autumn as they search for beach-cast marine mammal carcasses or subsistence whale remains. As such, the coastline provides an important movement corridor and habitat for resting for bears during summer and autumn. Alternatives B and C do not provide temporal restrictions on activities which could lead to unnecessary conflict with polar bears. Alternative D restricts activities in this area to the time of year when polar bears are less likely to be moving along the coast, thus providing a good mechanism for reducing conflicts, and potential lethal removal of bears. We recommend that the requirements/standards from D be applied across all alternatives to ensure requirements of the MMPA and ESA are met.
- We recommend altering the Objective in this stipulation to better describe the diversity of avian species. 'Waterfowl' is used, but should be 'waterbirds', and include 'sea birds and larids', since larids and seabirds are not covered by definition of 'waterbirds' on p. 3-86, or in Table J-9. Please change to "Objective: Protect fish and wildlife habitat, including that for waterbirds, larids, sea birds, and shorebirds, caribou insect relief"

Stipulation 5: Coastal Polar Bear Denning River Habitat

- Alternatives B and C do not provide protections for the possible behavioral avoidance of important polar bear denning habitat even with a small development footprint. Alternative D allows polar bears unhindered access to large areas of their preferred denning areas in the Coastal Plain. This will become increasingly important as the density of land-based dens increases in future years due to sea ice loss. We recommend that the requirements/standards from Alternative D be applied to Alternatives B and C. This would be most consistent with the Refuge purposes as outlined in ANILCA, the ESA and the MMPA.
- The language in Alternative D, Requirements/Standard subparts (a) and (b) allow the BLM Authorizing Officer to approve alternative protective measures. We recommend any such approvals be granted only in the case of consensus by the Service, given the need to ensure compliance with the ESA and MMPA.
- Changes in denning and/or disturbance should be monitored and evaluated over time. We recommend adding a requirement that a study of a minimum of 5 years be conducted to detect polar bear dens in all active lease blocks that overlap with polar bear designated critical habitat. If changes and/or disturbance are identified, then corrective measures may be applied.

Stipulation 6: Caribou Summer Habitat

- As shown in Maps 3-21 and 3-22, the entire Coastal Plain of the Refuge is high value caribou calving and/or insect relief habitat used by the Porcupine and Central Arctic herds. Female caribou with calves are sensitive to disturbance during the summer periods when they inhabit the coastal plain. We recommended timing limitations described under Alternative D in order to minimize impacts on this internationally important herd and subsistence resource. Importantly, Alternative D2 allows for exceptions to the timing limitations if approved by the Authorized Officer in consensus with the Service as the surface management agency, to account for variability in herd distribution. Recognizing the uncertainty about how much development will occur when and where, Alternative D2 provides managers with the ability to regulate development activity if needed.
- Recommend ROP be revised as: "Objective: Reduce disturbance of caribou and hindrance or alteration of caribou movements during periods when caribou are sensitive to disturbance."
- Recommend that the monitoring plan required in Requirement/Standard "g." in ROP 23 be expanded beyond vehicle use management to all potential activities that may disrupt caribou, and that allows for adaptive management to ensure ROP 23 is effective.

Stipulation 7: Porcupine Caribou Primary Calving Habitat Area (Map 2-2)

- A significant number of scoping comments called for protection of the Porcupine Caribou herd calving grounds, as has been done for the Teshekpuk and Western Arctic herds in NPRA. In the absence of delineated Special Areas identified for NPRA, the Draft EIS uses high density calving habitat to delineate the area where disturbance should be minimized during calving. Requirements found in Alternative D are designed to minimize impacts on caribou and their calves and protect the spring and fall primary migration corridor for the entire herd. The No Leasing restrictions occur in the area of lowest resource potential, while still allowing sufficient acreage to meet the requirements of PL 115-97. The timing limitations under Alternative B to minimize construction activity during the calving period would only be effective during the 1-2 years of an individual well pad construction, but would not minimize disturbance during exploration or during 30+ years of

August 9, 2019 FWS Comments (Excerpt)



IN REPLY REFER TO
FWS/R7/FES

United States Department of the Interior

U.S. FISH AND WILDLIFE SERVICE
1011 East Tudor Road
Anchorage, Alaska 99503-6199



AUG 09 2019

Memorandum

To: Nicole Hayes, Project Manager Coastal Plain Oil and Gas Leasing Program
Environmental Impact Statement, Bureau of Land Management,

From: Regional Director – Alaska Region *Dugan E. Sisk*

Subject: Comments on the Preliminary Final Environmental Impact Statement (EIS) for the
Coastal Plain Oil and Gas Leasing Program for the Arctic National Wildlife Refuge,
Alaska

The U.S. Fish and Wildlife Service (Service) appreciates the opportunity to review the Bureau of Land Management's (BLM) Preliminary Final EIS for the proposed Coastal Plain Oil and Gas Leasing Program in the 1002 Coastal Plain area of the Arctic National Wildlife Refuge (Arctic Refuge) for which Congress directed the BLM to establish a competitive oil and gas program for the leasing, development, production, and transportation of oil and gas in and from the Coastal Plain. We are a cooperating agency pursuant to the National Environmental Policy Act.

We recognize that we share a mandate with the BLM to develop a successful oil and gas program for the 1002 Coastal Plain. For the last year, we have worked with the BLM on development of alternatives to help ensure that all purposes of the Coastal Plain as outlined in Public Land Order 2214 and Alaska National Interest Lands Conservation Act (ANILCA), as amended by the Tax Cuts and Jobs Act of 2017 (Tax Act), are met. We appreciate the opportunity to work with the BLM and provide recommendations for your consideration as you design and implement the oil and gas program. In our attached comments, we have identified areas of particular environmental value and sensitivity where we recommend consultation between the Service Refuge Manager and the BLM Authorizing Officer to determine appropriate buffer areas to provide adequate protection to springs and subsurface groundwater and aufeis.

The Service and the BLM will be required to manage refuge lands and waters in a way that is consistent with applicable legislation. Public comments on the Draft EIS reveal questions of how the purposes of the Coastal Plain will be affected by the oil and gas program. We feel many of our comments will add clarity to the document that is important to the public reviewer. Comments specific to caribou and provided by the U.S. Geological Survey are also included because of the agency's involvement with technical studies that may inform the implementation of the leasing program.

Consultation and coordination between the BLM Authorizing Officer and the Service Refuge Manager in implementing the oil and gas program is important. We would like to work with the BLM to identify necessary and needed studies and to develop a post-leasing process for collaborating. The Tax Act assigned the BLM to administer sub-surface resources for an oil and gas program on the Coastal Plain within the Arctic Refuge. The Arctic Refuge Manager continues to be responsible for surface resource management and fulfilling the Refuge's purposes and the requirements of the Refuge Administration Act. Effective communication and coordination between the BLM and the Service will ensure the required balance among the purposes of the Coastal Plain of Arctic Refuge. Clarifying this process between the Service and the BLM will serve to provide regulatory certainty for lessees in the post-leasing period.

The Tax Act directed the BLM to manage the oil and gas program on the Coastal Plain in a manner similar to the administration of lease sales under the National Petroleum Reserve in Alaska (NPRA). To the extent practicable and where applicable and appropriate, we recommend applying stipulations and required operating procedures in the Coastal Plain similar to those applied in the NPRA. This practice would be consistent with the congressional direction and provide some level of consistency for operators and managers.

A clear set of lease terms and conditions and operating procedures would best provide potential lease holders with the information to pursue exploration and development in an environmentally compatible manner and help ensure compliance with the Endangered Species Act, Marine Mammal Protection Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Fish and Wildlife Coordination Act, and the international and bilateral treaties and agreements identified in the preliminary Final EIS.

The Service appreciates the opportunity to provide the attached comments and recommendations, and the opportunity to participate as a cooperating agency. Please contact Dr. Wendy Loya, Arctic Science Program Coordinator at 907-786-3532 or via email wendy_loya@fws.gov, should you have any questions.

Attachment

Cmt #	Page #	Row # or Line #	Reviewer Name/ Agency	Comment	A/R/M ¹	Remarks / How Resolved (Reviewers: Leave this column blank)
1.	ES-1	12-13	FWS	We recommend listing the all designated purposes of the Arctic Refuge under ANILCA and the Tax Act within this section of the document, rather than referring the reader to ANILCA in the Introduction of the Executive Summary.		
2.	1.1	9-10	FWS	The Act added the new oil and gas purpose to the other existing purposes, implying that all purposes of the Refuge are to be achieved and maintained. We recommend the EIS include a detailed explanation of how BLM and FWS will coordinate to ensure management to achieve all Refuge purposes.		
3.	ES-1 1-2	28-29 7-8	FWS	Specific accounting for the Refuge purposes in all the action alternatives are not clearly spelled out or readily identified in the document. The FEIS should explicitly identify the ability of each alternative to meet Section 20001 of PL 115-97 and to account for all purposes of the Arctic Refuge, consistent with the following statement in the EIS. "All action alternatives are designed to meet Section 20001 of PL 115-97 and to account for all purposes of the Arctic Refuge."		
4.	1-6	1	FWS	We recommend adding the Migratory Bird Treaty Act signed between the U.S., Canada, Mexico, Russia, and Japan to this section.		
5.	1-7	7-8	FWS	We recommend that land under pipelines be considered part of the 2000-acre development limit. The pipe, although elevated, can temporarily or permanently affect the land beneath it and wildlife behavior, making it less suitable for wildlife.		

6.	1-7	9-15	FWS	<p>We are pleased to see that gravel mines are now being considered part of the 2,000 acre limit. We recommend moving gravel mines to the other bulleted items (starting at line 3) as a facility that is counted toward the 2,000 acre limit on lines 3-6 pg. 1-7. As the paragraph reads now, it is not clear that gravel mines are counting toward the 2,000 acre limit. The comparison of gravel mines to mills that supply steel for off-site construction of pipelines and other facilities is not appropriate and makes it seem like gravel is not being accounted for, and thus may be an oversight in the revision of the EIS. The Service recommends the final EIS incorporate gravel mines into the impact analysis for each of the action alternatives analyzed in the EIS.</p>		
7.	2-14	LS 7	FWS	<p>The FWS recommends that the caribou calving grounds be designated for No Surface Occupancy under Alternative B based on the sensitivity of caribou with calves. If the above recommendation is not adopted, we recommend that requirements similar to NPRA Lease Stipulation 5a be considered and that lessees develop plans for stopping work and minimizing traffic disturbance when caribou calving is occurring. We further recommend that lessees conduct multi-year studies to evaluate the efficacy of the proposed minimization measures.</p>		

8.	2-18	Table 2-3	FWS	For Lease Stipulation 10, Wilderness Boundary, we recommend that a NSO setback of appropriate size be considered in order to ensure protection of the wilderness values of the designated Mollie Beattie Wilderness area from impacts associated with development activities.		
9.	2-19	ROP 1	FWS	<p>We recommend changing ROP 1 Requirement/Standard from "Areas of operation would be left clean of all debris" to read, "Areas of operation would be left clean of all surface and sub-surface debris, and any residual soil or surface water contamination caused by debris."</p> <p>Under the Preferred Alternative, ROPs currently identified to address pollution generated by oil and gas activities need to be enhanced to address the other four purposes of the Arctic Refuge.</p>		
10.	2-20	ROP 4	FWS	This ROP and other sections of the EIS reference adherence to the current North Slope Incidental Take Regulation (ITR) that expires in 2021. We recommend this language be changed to "The plans would include specific measures identified by the USFWS for petroleum activities on the Coastal Plain, which may include updated measures and/or may include similar measures identified in the current USFWS Incidental Take Regulations (81 FR 52318; § 18.128) that have been promulgated and applied to petroleum activities to the west of the Coastal Plain."		

11.	2-21	ROP 6	FWS	The EIS states that the location, timing, and level of future oil and gas development on the Coastal Plain is unknown at this time and that a qualitative air analysis is being performed. In the other Alaska projects mentioned in this section, the NPRA, GMT2, and the BOEM Air Modeling Study (BLM 2012, BLM 2018a, and BOEM 2016, 2017 respectively), quantitative analyses have been performed using a low, medium, and high projected level of development. We recommend a similar approach be taken for the analysis within the FEIS. While qualitative analyses can be included in EISs, where it is possible to include quantitative analysis we would recommend to do so.		
12.	2-21	ROP6	FWS	Correct terminology editorial comment: ensure that "federal land manager" is not capitalized throughout this ROP 6.		
13.	2-22	ROP 4	FWS	We recommend completely separating the requirements and guidance for grizzly bears and polar bears. Given that some, but not all, methods and measures apply to both species, it would be clearer for operators if they were dealt with separately. It may be more appropriate and easier to include grizzly bears in the other wildlife management plan section.		
14.	2-22	ROP 8	FWS	We recommend editing the Objective for ROP 8 to read: "In flowing waters (rivers, springs, and streams) ensure water of sufficient quality and quantity to conserve fish, waterbirds, and wildlife populations and habitats in their natural diversity."		
15.	2-23	ROP 9	FWS	We recommend a modeling and monitoring plan to address lake recharge be adopted to help ensure adequate protection of habitat for waterbirds.		

16.	2-24 3-143	ROP 10 24-26	FWS	<p>Currently, the EIS states that "grizzly bear dens identified by ADFG" will be avoided (by 0.5.km). We recommend revising this statement to indicate that the lessee should work with FWS to identify denning sites, which will be confirmed by FWS. Management of bears on refuge lands is the responsibility of both ADFG and FWS; however, management of the surface estate, including bear denning habitat and actions occurring in the vicinity of dens, is the responsibility of FWS.</p> <p>Additionally, we recommend that ROP 10 require the development of a bear den survey/monitoring plan, similar to the bear interaction plan described in ROP 4.</p> <p>Within the NPRA, cross-country use of heavy equipment and seismic activities is prohibited within 0.5 mile of identified occupied grizzly bear dens identified unless alternative protective measures are approved by the authorized officer in consultation with the ADFG (NPRA IAP, 2012). Without additional study, we recommend a minimum buffer distance of 0.5 miles of identified grizzly bear dens be employed.</p>		
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17.	2-25	ROP 11 Alt B	FWS	<p>We recommend including the requirement that snow depth and density amounts to no less than a snow water equivalent (SWE) of 3 inches above the highest tussocks. Allowing for only 'three inches of snow depth over the highest tussocks,' as the requirement is currently worded, is not a suitable replacement for the SWE measurement, which accounts for both snow depth and density. If SWE is not included, we recommend that 3" be changed to 6" to meet the minimum protective depth needed under average snow density for the Refuge. If the SWE metric will not be used in the standard for Alternative B, then average depth <u>and</u> depth over tussocks should both be elements of the requirement; 'whichever is less' should be omitted. Thus, if the SWE requirement is not adopted, our recommended language is: Ground operations would be allowed when soil temperatures at 12 inches below the tundra surface (defined as the top of the organic layer) reaches 23F and snow depths are an average of 9 inches, with at least 6 inches above the highest tussock.'</p>		
18.	2-24	ROP 10	FWS	<p>To clarify, operators may not all be in possession of an LOA. This is one form of authorization under the MMPA, but it is possible that another form (IHA) may be in use. In addition, polar bear dens may occur offshore as well as onshore and both could be impacted by disturbance which this ROP is intended to prevent. Hence, the Service suggests re-phrasing this ROP, for example to "Operators seeking to carry out onshore or offshore activities in known or suspected...."</p>		

19.	2-28	ROP 18	FWS	<p>The Requirement/Standard developed for ROP 18 Objective does not address the last half of the Objective to, "minimize the impact of oil and gas activities on air, land, water, fish, and wildlife resources".</p> <p>We recommend amending the language in the ROP 18 Objective from "Protect subsistence use and access to subsistence hunting and fishing areas and minimize the impact of oil and gas activities on air, land, water, fish, and wildlife resources" to, "Protect subsistence use and access to subsistence hunting and fishing areas." to better align with the current Requirement/Standard.</p>		
20.	2-32	ROP 27	FWS	<p>We recommend adding the following to ROP 27 Requirement/Standard: To reduce the likelihood of birds landing on any temporary pool or pits that may contain hazardous materials or waste, including but not limited to sewage, petroleum products, or drilling muds, all such pools or pits are managed according to current best management practices, and monitored to ensure no entanglement.</p>		
21.	2-33	ROP 30	FWS	<p>In order to "prevent" the loss of nesting habitat, we recommend adding a Requirement/Standard that states "the extraction of gravel from cliffs would be prohibited," consistent with language contained in NPRA ROPs (E-15 best management practice).</p>		
22.	2-34	ROP 33	FWS	<p>We recommend editing the Requirement/Standard to read: "A representation, in the form of ArcGIS-compatible shape-files, of all new infrastructure construction would be provided to the BLM Authorized Officer, FWS Arctic Refuge Manager, and State of Alaska by the operator..."</p> <p>As the surface land manager of the Refuge, FWS should be provided copies of all data, including metadata, and information generated within the Refuge.</p>		

23.	2-35	ROP 35	FWS	<p>We recommend the following changes to ROP 35 for all alternatives: a) Replace the phrase "hydrological, vegetation, and habitat condition" with "hydrological, vegetation, and habitat condition, including contamination;" and b) Replace the phrase "stability, visual, hydrological, and productivity objectives" with "stability, visual, hydrological, contamination, and productivity objectives."</p> <p>Additionally, we recommend the Requirement/Standard for ROP 35 under all Alternatives include the following language:</p> <ol style="list-style-type: none"> a. Oil and gas infrastructure, including gravel pads, roads, airstrips, wells and production facilities, would be removed and the land restored on an ongoing basis, as extraction is complete. The BLM Authorized Officer may grant exceptions to satisfy stated environmental or public purposes. b. Before final abandonment, land used for oil and gas infrastructure – including well pads, production facilities, access roads, and airstrips – would be restored to ensure eventual restoration of ecosystem function and meet minimal standards to restore previous wild characteristics. The leaseholder would develop and implement a BLM-approved abandonment and reclamation plan. The plan would describe short-term stability, visual, hydrological and productivity objectives and steps to be taken to ensure eventual ecosystem restoration to the land's previous hydrological, vegetation and habitat condition, wild and scenic river (WSR) eligibility/suitability, and intent to restore previous wild characteristics of the area. The BLM Authorized Officer may grant 		
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				exceptions to satisfy stated environmental or public purposes.		
24.	2-35	ROP 35	FWS	Within the Requirement/Standard, we recommend clarifying who has the ability to request an exception to reclamation requirements.		
25.	2-36	ROP 36	FWS	In addition to consulting with communities, we recommend the lessee/operator/contractor consult with the Alaska Nannut Co-management Council (ANCC), as the Alaska Native Organization established by polar bear hunting villages to represent them and their interests related to subsistence hunting of polar bears		
26.	2-4	1-37	FWS	Given the complex nature of separate management authorities that both the BLM and FWS have in the 1002 Area, we recommend providing additional information on what operating procedures the Authorizing Officer will follow when making decisions on waivers and other aspects of the oil and gas program where objectives overlap with FWS management of natural resources. We are specifically interested in obtaining a better understanding of when and how the Authorizing Officer will consult and coordinate with FWS in making decisions affecting our management responsibilities.		
27.	2-42	ROP 45	FWS	The Requirement/Standard does not appear to address the stated objective. Surveys alone for sensitive species would not, "Minimize loss of individuals and habitat for mammalian, avian, fish, and invertebrate species designated as sensitive by the BLM in Alaska". Please consider changing, "The results of these surveys would be submitted to the BLM with the application for development" to "The results of these surveys and plans to minimize impacts would be submitted to the BLM with the application for development".		

28.	2-44	Lease Notice 2	FWS	<p>The language in Lease Notice 2 is not consistent with the language provided in the Biological Assessment or BLM's Memo for the Record dated July 3, 2019. Because our Biological Opinion is predicated in part upon the assumptions and assurances of this language, it is essential that it is consistent and clear. We recommend including the following language in Lease Notice 2, which is the language which was agreed upon:</p> <p><i>The lease area may now or hereafter contain marine mammals. The BLM may require modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved actions that would contribute impacts to marine mammals. The BLM would not approve of any action that may affect marine mammals until the applicants/operators seek and obtain incidental take authorization under the MMPA. The BLM would require a copy of any Incidental Take Authorization and the Incidental Take Statement (ITS) prior to conducting activities.</i></p>		
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29.	2-5	LS 1	FWS	<p>We reiterate our recommendation for a 1 mile buffer for all streams and rivers encompassed by the high density area for polar bear denning as provided in the FWS produced maps. Without these restrictions, it is unlikely that leaseholders will be able to comply with MMPA and/or ESA requirements for polar bears.</p> <p>Citation: MacGillivray, A.O., D.E. Hannay, R.G. Racca, C.J. Perham, S.A. MacLean, M.T. Williams. 2003. Assessment of industrial sounds and vibrations received in artificial polar bear dens, Flaxman Island, Alaska. Final report to ExxonMobil Production Co. by JASCO Research Ltd., Victoria, British Columbia and LGL Alaska Research Associates, Inc., Anchorage, Alaska, USA.</p>		
30.	2-6	LS 2	FWS	We recommend adopting a NSO for Canning River Delta and adjacent lakes to ensure the FEIS addresses all Refuge purposes.		
31.	2-6	LS 2	FWS	LS-2 is specific to the Canning River Delta and lakes due to wildlife, particularly bird, use. Please consider changing, "and the loss of migratory bird habitat", to "and adverse effects to migratory birds".		

**BLM Response to FWS Comments on Administrative Draft of Final EIS
(Excerpt)**

BLM and Cooperating Agency Comments on
the Administrative Draft Final EIS

**COASTAL PLAIN OIL AND GAS LEASING PROGRAM
ENVIRONMENTAL IMPACT STATEMENT**

BLM and Cooperating Agency Comments on Administrative Final Review EIS

Cmt #	Page #	Row # or Line #	Reviewer Name/ Agency	Comment	A/R/M/ NA¹	Remarks / How Resolved (Reviewers: Leave this column blank)
				conservation and management objective to avoid BLM-approved actions that would contribute impacts to marine mammals. The BLM would not approve of any action that may affect marine mammals until the applicants/operators seek and obtain incidental take authorization under the MMPA. The BLM would require a copy of any Incidental Take Authorization and the Incidental Take Statement (ITS) prior to conducting activities.		to "take" (e.g., kill, injure, or disrupt the behavioral patterns of) marine mammals unless the applicant/operator applies for relevant take authorization(s) under the MMPA. The BLM would require documentation of compliance with the MMPA by the Services prior to commencement of such activities.
139.	2-49	14-15	AVC-NVVTG-VVC	BLM states that "There are several lease stipulations and required operating procedures that do not allow waivers, modifications, or exceptions." The BLM should specifically identify the stipulations and required operating procedures that do not allow waivers, modifications, or exceptions. And the BLM should consider including a table that identifies whether each stipulations and required operating procedure allows waivers, modifications, or exceptions.	R	This has been done. See Table 2-3
140.	2-5	LS 1	FWS	We reiterate our recommendation for a 1-mile buffer for all streams and rivers encompassed by the high density area for polar bear denning as provided in the FWS produced maps. Without these restrictions, it is unlikely that leaseholders will be able to comply with MMPA and/or ESA requirements for polar bears. Citation: MacGillivray, A.O., D.E. Hannay, R.G. Racca, C.J. Perham, S.A. MacLean, M.T. Williams. 2003. Assessment of industrial sounds and vibrations received in artificial polar bear dens, Flaxman Island, Alaska. Final report to ExxonMobil Production Co. by JASCO Research Ltd., Victoria, British Columbia and LGL Alaska Research Associates, Inc., Anchorage, Alaska, USA.	R	See LS 5, LS 9, and ROP 10. Regardless of the buffer width, pursuant to Lease Notice 2 operators will have to obtain MMPA authorization prior to conducting operations in denning habitat. The EIS analyzes a range of alternatives. If Alternative B is the selected alternative in the Record of Decision, then the decision maker may select mitigation measures from other alternatives as necessary.

¹ A = Comment accepted; R = Comment rejected with explanation; M = Comment-response modified; NA = not applicable