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December 17, 2020

Submitted via email to:
Chris Pladgett
State Director
Bureau of Land Management
Alaska State Office
222 West 7th Avenue, Stop #13
Anchorage, AK 99513-7504
blm_akso_ak932_cpcomments@blm.gov

Re: Comments from Native Village of Venetie Tribal Government, Arctic Village Council, and Venetie Village Council on BLM's Call for Nominations and Comments for the Coastal Plain Alaska Oil and Gas Lease Sale, 85 Fed. Reg. 73292 (Nov. 17, 2020)

Dear Director Padgett:

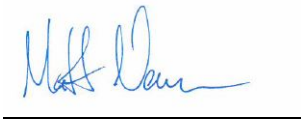
The attached comments are submitted by the Native American Rights Fund on behalf of the Native Village of Venetie Tribal Government, Arctic Village Council, and Venetie Village Council ("the Tribes") on the Bureau of Land Management's ("BLM") Call for Nominations and Comments for the Coastal Plain Alaska Oil and Gas Lease Sale, 85 Fed. Reg. 73292 (Nov. 17, 2020).

The Tribes unequivocally oppose any efforts to hold an oil and gas lease sale for any tracts on the Coastal Plain of the Arctic National Wildlife Refuge ("the Refuge"). These Tribal communities are situated on the boundaries of the Arctic Refuge, and depend on the caribou, migratory birds, and other subsistence resources supported by the Coastal Plain for their culture, identity, spirituality, and way of life. For the reasons discussed in the attachment, the Tribes urge BLM not to offer any tracts within the Refuge for lease in the upcoming Coastal Plain Oil and Gas Lease Sale.

The Tribes also attach and incorporate by reference comments submitted during the development of the Environmental Impact Statement ("EIS") for the Coastal Plain Oil and Gas Leasing Program. The Tribes were cooperating agencies in the development of the EIS and are deeply concerned that the Final EIS failed to meaningfully address the Tribes' input, failed to minimize potential impacts to Arctic Village and Venetie communities, and failed to take a hard look at the Leasing Program's direct, indirect, long-term, regional, and cumulative impacts, including, but not limited to: impacts on the Porcupine Caribou Herd and other migratory species, subsistence, cultural resources, sociocultural systems, public health, and food security.

BLM consistently ignored the Tribes' concerns up through its record of decision ("ROD") and its adoption of a Preferred Alternative that disregards the concerns the Tribes raised throughout the EIS process, allowing for the most acres available for leasing while providing the least protections for biological, ecological, and cultural resources of critical importance to the Tribes. Because of BLM's failure to meaningfully consider the Tribes' input in the EIS process and during consultation as required under the National Historic Preservation Act ("NHPA") and the Alaska National Interest Lands Conservation Act ("ANILCA") and because of its decision to open the entire Coastal Plain to oil and gas leasing, the Tribes have filed a lawsuit against BLM in the U.S. District Court in Alaska.[1] Until the many legal deficiencies raised in this lawsuit are resolved and remedied, BLM should not move forward with offering any tracts within the Refuge for lease in the upcoming Coastal Plain Oil and Gas Lease Sale.

Sincerely,



Matthew N. Newman
Senior Staff Attorney

Enclosures:

1. NVVTC, AVC, and VVC Comments on Call for Nominations (Dec. 17, 2020)
2. NVVTC, AVC, and VVC Comments on Seismic Scoping (Nov. 6, 2020)
3. *Complaint for Declaratory and Injunctive Relief*, *Native Village of Venetie Tribal Government et al. v. Bernhardt et al.*, No. 3:20-cv-00223-SLG (D. Alaska).
4. NVVTC, AVC, and VVC Comments on Leasing Program Final EIS (Aug. 2, 2019)
5. NVVTC, AVC, and VVC Comments on Leasing Program Draft EIS (March 13, 2019)
6. NVVTC, AVC, and VVC Comments on Leasing Program Scoping (June 19, 2018)

[1] *Native Village of Venetie Tribal Government et al. v. Bernhardt et al.*, No. 3:20-cv-00223-SLG (D. Alaska).

Comments from
The Native Village of Venetie Tribal Government,
The Arctic Village Council, and
The Venetie Village Council

On

The Bureau of Land Management's

Call for Nominations and Comments for the
Coastal Plain Alaska Oil and Gas Lease Sale,
85 Fed. Reg. 73292 (Nov. 17, 2020)

Submitted December 17, 2020

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I. Background

This comment is being submitted jointly by the Native Village of Venetie Tribal Government, the Venetie Village Council, and the Arctic Village Council ("the Tribes"). The Tribes collectively represent the Gwich'in tribal members living in Arctic Village and Venetie. Each is recognized as a sovereign Indian Tribe having a government-to-government relationship with the United States.[1] The Native Village of Venetie is the present owner of the 1.8 million acres of the former Venetie Indian Reserve. Tribal members continue to live a subsistence way of life in the villages of Venetie and Arctic Village; both of which are located far from Alaska's road system.

At the outset, the Tribes unequivocally state their opposition to the Bureau of Land Management's ("BLM") proposed oil and gas leasing program. The Coastal Plain of the Arctic National Wildlife Refuge ("the Refuge") is one of the most important natural, cultural, and subsistence resources to the Tribes and to all Gwich'in people as a whole. This is reflected in the Gwitch'in name for the Coastal Plain: Izhik Gwats'an Gwandaii Goodlit, or "the sacred place where life begins." Oil and gas development in this area is wholly incompatible with the Gwitch'in worldview. The caribou that calve on the Coastal Plain are the primary source of Tribal members' subsistence harvests—the keystone species that has made it possible for us to live within our traditional areas from prehistory to the present. Any impacts to those animals, from changes in migration patterns, lower fertility rates, and loss of habitat, will be felt by Tribal members in Arctic Village and Venetie.

The Coastal Plain of the Arctic Refuge is a majestic landscape of profound importance to the Gwich'in people. It is an area of rolling hills, small lakes, and braided rivers weaving through tundra, and it stretches southward from barrier islands in the Beaufort Sea to the foothills of the Brooks Range. The Coastal Plain serves as the calving grounds for the Porcupine Caribou Herd, which migrates there in the summer to give birth, raise their young, seek relief from insects, avoid predators, and forage on high quality tundra vegetation.

Gwich'in people in the communities of Arctic Village and Venetie enjoy a close and lasting relationship with these caribou, which pass through their lands on their annual migration. Caribou are entwined in Gwich'in stories, songs, worldview, spirituality, and traditions, and caribou are fundamental to their very existence. In addition to caribou, migratory birds flock to the Coastal Plain in huge numbers and thrive in and around its wild rivers, streams, lakes, tundra, and lagoons. Gwich'in people hunt geese, gather eggs, and otherwise rely on migratory bird resources as part of their subsistence way of life as well.

In 2018 and 2019, BLM and other federal agencies conducted environmental, subsistence, and historic property reviews in connection with the proposed Coastal Plain Oil and Gas Leasing Program. The Tribes participated extensively in these agency processes. The Tribes engaged in government-to-government consultation with the BLM, participated as cooperating agencies in the National Environmental Protection Act ("NEPA") review process, and participated as consulting parties in the National Historic Preservation Act ("NHPA") Section 106 process. Tribal leaders and members also gave testimony at public meetings and submitted written comments. The Tribes repeatedly emphasized the devastating impacts that oil and gas exploration and development would have on wildlife, habitat, subsistence, historic properties, and other resources and values of

[1] *See* 83 Fed. Reg. 4,235, 4,239-40 (Jan. 30, 2018).

the Arctic Refuge. The Tribes expressed their categorical opposition to the Leasing Program, and they urged the agencies to fully analyze and mitigate its adverse effects. The agencies largely ignored the Tribes' objections and approved the Leasing Program based on grossly inadequate and unlawful review processes in its Record of Decision ("ROD") in August 2020.

In September 2020, the Tribes initiated a lawsuit challenging the final ROD for the Leasing Program, as well as the associated environmental impact statement ("EIS"), the Alaska National Interest Lands Conservation Act ("ANILCA") § 810 subsistence evaluation, and the NHPA § 106 process and Programmatic Agreement ("PA") pertaining to historic properties.[2] Three other lawsuits have also been filed challenging the agencies' processes and decisions concerning the Leasing Program.[3]

Despite that the merits of the Tribes lawsuit have not yet been decided by the court and despite the unresolved issues raised by the Tribes throughout the NEPA, NHPA, and ANILCA processes, BLM has moved forward at a rapid pace with its plans to lease the Coastal Plain for oil and gas development. On November 17, 2020, BLM published a Call for Nominations for oil and gas leasing on the Coastal Plain and opened a thirty-day public comment period.[4] Halfway through the comment period, however, BLM issued a Notice of Lease Sale and Detailed Statement of Lease Sale, which indicated bids would be accepted from December 21 to 31, 2020 and the lease sale itself would take place on January 6, 2021, with the actual issuance of leases taking place thereafter.[5]

In its Call for Nominations and lease sale notice, BLM identified 32 tracts that are available for bid and set out the terms for leases. Rather than carefully considering the comments and concerns of the Tribes to inform the tract selection process, BLM has instead chosen to offer the *entire 1.5 million acres of the Coastal Plain to oil and gas leasing* in blatant disregard for concerns of the Tribes, science, and the agency's legal obligations to protect sensitive areas and resources in the Arctic Refuge.

II. Leasing Poses a Significant Threat of Irreparable Harm to Our Tribal Members – No Tracts Should Be Leased

BLM's Call for Nominations makes the entirety of the Coastal Plain – more than 1.5 million acres – available for oil and gas leasing, providing the least protection for biological and ecological resources and disregarding the Tribes concerns regarding the critical importance of the Coastal Plain to the Porcupine Caribou Herd.

Moreover, the issuance of the proposed leases contain in their terms and conditions "extraordinary" language that would grant expansive rights to lessees.[6] For instance, Interior

[2] *See Native Village of Venetie Tribal Gov't v. Bernhardt*, 3:20-cv-00223-SLG (D. Alaska).
[3] *Gwich'in Steering Comm. v. Bernhardt*, 3:20-cv-00204-SLG (D. Alaska); *State of Washington v. Bernhardt*, 3:20-cv-00224-SLG (D. Alaska); *National Audubon Soc'y v. Bernhardt*, No. 3:20-cv-00205-SLG (D. Alaska).
[4] Call for Nominations and Comments for the Coastal Plain Alaska Oil and Gas Lease Sale, 85 Fed. Reg. 73292 (Nov. 17, 2020).
[5] Notice of 2021 Coastal Plain Alaska Oil and Gas Lease Sale and Notice of Availability of the Detailed Statement of Sale, 85 Fed. Reg. 78865 (Dec. 7, 2020).
[6] House Approps. Comm., *Dept. Interior Budget Request for FY2021*, at 1:53:35 to 1:54:03, YouTube.com,

Secretary David Bernhardt has emphasized to Congress that the leases would "guarantee . . . rights-of-way" across the sensitive Coastal Plain.[7] The Detailed Statement of Lease Sale confirms this expansive grant of rights to lessees:

> BLM interprets the plain language of [Section 20001(c)(2) of Public Law 115-97] as requiring that it authorize any such rights-of-way necessary to carry out the Coastal Plain oil and gas program established by Section 20001 of PL 115-97. . . . Off-lease rights-of- way and easements necessary for development under a particular lease will be granted, as well as any right-of-way or easement necessary to carry out the oil and gas program across the Coastal Plain.[8]

Unlike typical oil and gas leases, the Coastal Plain leases will guarantee lessees rights-of-way and easements across areas of the Coastal Plain outside their lease tract boundaries, resulting in irreparable harm across vast swaths of the Coastal Plain. BLM has also indicated that the agency believes its ability to prohibit, condition, or restrict lessees' oil and gas development activities after lease issuance is much more limited than usual.[9] As such, BLM acknowledges that the issuance of a lease is an irretrievable commitment of resources.[10] By transferring unusually expansive property rights and limiting future agency oversight, BLM intends to make it easier for the leaseholders to build roads, undertake seismic operations, conduct exploratory drilling, build gravel mines, and construct and operate heavy industrial facilities, including wells, pipelines, pads, and camps, across vast areas of the sensitive Coastal Plain ecosystem.

As described in the Tribes comments to BLM during the Leasing EIS process (enclosed herein) and in the Tribes lawsuit challenging BLM's EIS and ROD, the issuance of leases in any of the tracts identified in the Call for Nominations would cause significant stress on the people who depend on subsistence resources of the Coastal Plain and would have significant impacts on Gwich'in society, culture, economy, spirituality, way of life, subsistence, and public health. The Coastal Plain of the Arctic National Wildlife Refuge is one of the most important natural, cultural, and subsistence resources to the Tribes and to all Gwich'in people. It has historical significance as a place where Gwich'in have traveled, camped, hunted, and traded since time immemorial. Today, the Tribes continue to regard the Coastal Plain as sacred and important. The Tribes and their members view the Coastal Plain as a place of peace and a sanctuary where animals return to renew their lifecycles.

Oil and gas development in this area is wholly incompatible with the Gwich'in worldview. The caribou that calve on the Coastal Plain are the primary source of the Tribes' members' subsistence harvests—the keystone species that has made it possible for the Tribes to live within their

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https://appropriations.house.gov/events/hearings/department-of-the-interior-budget-request-for-fy2021 (Mar. 11, 2020, testimony of Interior Secretary Interior David Bernhardt) (explaining the "rights conferred under these [Coastal Plain] leases are extraordinary" and "guarantee . . . rights-of-way" to the lessees).

[7] *Id*.

[8] BLM, Coastal Plain Detailed Statement of Sale, at p. 5, available at https://www.blm.gov/sites/blm.gov/files/docs/2020-12/2021_BLM-AK-Coastal-Plain-Detailed-Statement-of-Sale.pdf.

[9] *Id*. at p. 6 (the Tax Act "statutory requirement functions as a directive to BLM that it must not deny or unreasonably limit development of production and support facilities on the Coastal Plain….").

[10] BLM, Coastal Plain Oil and Gas Leasing Program Final EIS, appx. F, at p. F-1.

traditional homelands from pre-contract to the present. Any impacts to those animals, from changes in migration patterns, lower fertility rates, and loss of habitat will have significant adverse social, cultural, spiritual, and subsistence impacts on the Tribes and their members.

Tribes' Recommendations on Call for Nominations Proposed Tracts		
Tract #	**Acres**	**Tribes Recommendation(s)**
2021-CP-001	45,380	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-002	45,618	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-003	44,609	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-004	53,112	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-005	41,592	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-006	56,905	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-007	50,640	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-008	56,500	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-009	58,544	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-010	45,891	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-011	45,986	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-012	34,501	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-013	34,455	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-014	34,455	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-015	45,986	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-016	57,507	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-017	43,876	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-018	50,670	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-019	55,843	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-020	50,823	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-021	57,828	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-022	56,168	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-023	58,830	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-024	58,176	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-025	48,603	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-026	53,412	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-027	52,447	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-028	59,410	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-029	23,446	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-030	46,791	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-031	53,546	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
2021-CP-032	42,346	**Do not offer tract** – significant cultural and subsistence impacts; inadequate analysis
Total	**1,563,896**	

Figure 1. Tracts Proposed for Leasing

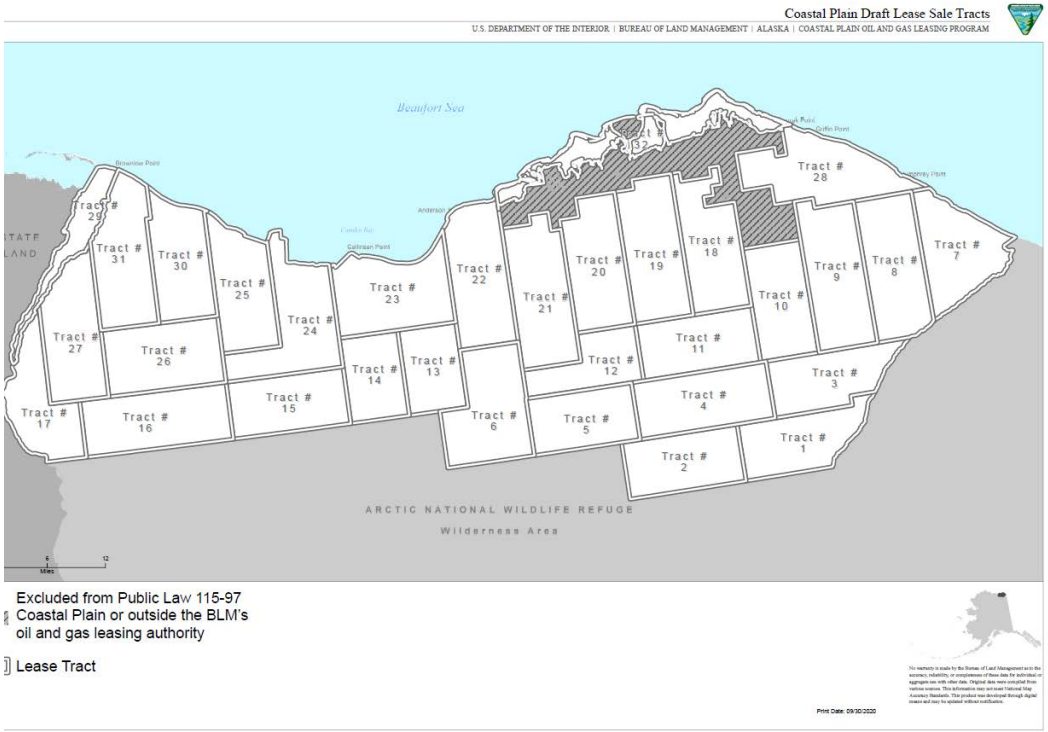


Figure 2. Dashed lines represent trade routes between ancestral Gwich'in people and Iñupiat.

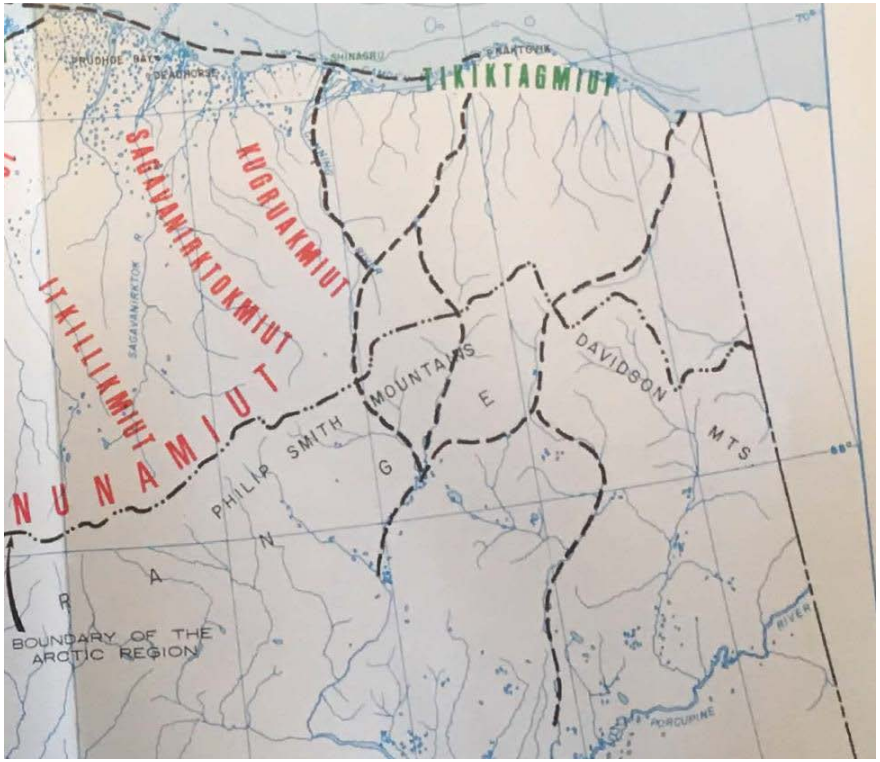
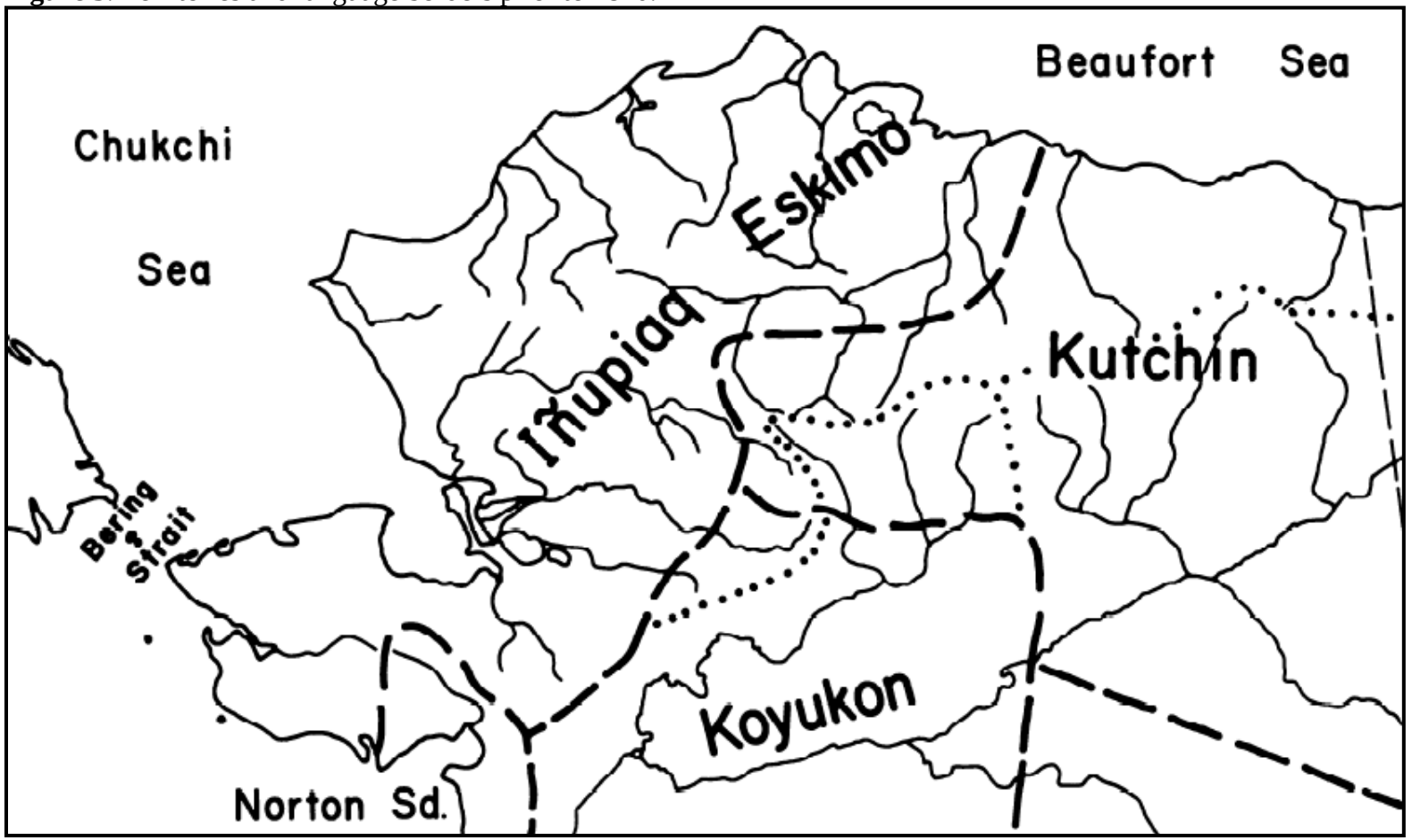


Figure 3. Territories and language borders prior to 1820.[12]



[12] Ernest Burch, Jr., *Boundaries and Borders in Early Contact North-Central Alaska*, 35 ARCTIC ANTHROPOLOGY 129 (1998)

As detailed in the attached comment letters submitted to BLM from the Tribes throughout the NEPA, ANILCA, and NHPA processes, any leasing of any tracts within the Coastal Plain will result in significant impacts to the Tribes' cultural identity and community ties; subsistence activities and way of life; and cultural resources, including community values, religious practices, spiritual places, and uses of the natural environment. As such, the Tribes request that all 32 tracts described in the Call for Nominations be removed from consideration for leasing.

In addition, and as described in the remainder of this comment letter, the Tribes have serious concerns about the manner in which BLM is proceeding with leasing the Coastal Plain in violation of the agency's legal obligations under ANILCA, NHPA, and NEPA and its trust responsibility with the Tribes. Indeed, the Tribes are presently challenging many of these same issues in U.S. District Court in Alaska stemming from BLM's approval of the Leasing Program EIS. Until this lawsuits is resolved, and the legal violations remedied by the agencies, BLM should not move forward with oil and gas leasing on the Coastal Plain

III. Call for Nominations Process is Rushed; BLM Has Failed to Fulfill its Trust Responsibility with Tribes; BLM's Failure to Consult Violates ANILCA and NHPA

A. ANILCA Section 810

In enacting ANILCA, Congress recognized that the "continuation of the opportunity for subsistence uses . . . is essential to Native physical, economic, traditional, and cultural existence,"[13] and a key purpose of Alaska public lands is to "provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so."[14] Congress also declared it to be federal policy that the "utilization of the public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands."[15] Toward that end, ANILCA Section 810 establishes both procedural and substantive protections for subsistence.

The ANILCA Section 810 process takes place in two steps. In Tier 1, the agency must evaluate: (a) the "effect" of the proposed action on "subsistence uses and needs"; (b) the "availability of other lands" for the action; and (c) "other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes."[16] If, after completing Tier 1, the agency determines that the proposed activity "may significantly restrict subsistence uses," the agency must proceed to Tier 2.[17]

The Tier 2 threshold is "quite low."[18] Only a "threat of significant restriction" is required, and such a restriction "need not be likely."[19] In Tier 2, the agency cannot authorize the proposed activity unless and until it: "gives notice of, and holds, a hearing in the vicinity of the area involved" and determines that (1) the "restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands," (2) the proposed activity will

[13] 16 U.S.C. § 3111(1).
[14] *Id.* § 3101(c); *see id.* § 3112(1).
[15] *Id.* § 3112(1).
[16] 16 U.S.C. § 3120(a).
[17] *Kunaknana v. Clark*, 742 F.2d 1145, 1151 (9th Cir. 1984).
[18] *Sierra Club v. Penfold*, 664 F. Supp. 1299, 1307 (D. Alaska 1987), *aff'd* 857 F.2d 1307 (9th Cir. 1988).
[19] *Hanlon v. Barton*, 740 F. Supp. 1446, 1448 (D. Alaska 1988).

involve the "minimal amount of public lands necessary," and (3) "reasonable steps will be taken to minimize adverse impacts upon subsistence."[20] The ultimate determination of whether a proposed action is "necessary" calls for a balancing of the harm to subsistence against the benefits of the action, and this weighing of competing interests is affected by how many and which types of subsistence communities are included in the evaluation.

As described in the Tribes comments to BLM throughout the ANILCA Section 810 process and in its present litigation against BLM in U.S. District Court in Alaska, the agency unlawfully excluded Gwich'in Tribes from both phases of their ANILCA Section 810 process for the Coastal Plain Leasing Program. As a result of this exclusion, the full extent of subsistence uses of the Porcupine Caribou Herd was not considered, and the full range of potential alternatives and mitigation to minimize adverse impacts on Gwich'in subsistence communities, including the Tribes, likewise were not considered. The exclusion of these communities precluded BLM from making informed decisions concerning the minimization of adverse impacts on subsistence uses and the balancing of harms to subsistence against the benefits of oil and gas development during the development of the Leasing Program EIS.

BLM is explicitly tiering its Coastal Plain lease sale from the ANILCA Section 810 process conducted during the Leasing Program EIS and to date has not done further ANILCA Section 810 analysis of subsistence impacts to the Tribes as required prior to undertaking a lease sale. BLM must assess the potential impacts to subsistence from the lease sale and consider alternatives that would reduce impacts to subsistence. Section 810 of ANILCA requires BLM to analyze the potential impacts to subsistence and ways to eliminate or reduce those impacts when leasing:

> In determining whether to withdraw, reserve, *lease*, or otherwise permit the use, occupancy, or disposition of public lands . . . [BLM] shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes.[21]

Moreover, BLM's policy related to ANILCA Section 810 acknowledges that this evaluation "is required for all land use actions."[22] The Section 810 analysis that BLM conducted for the Leasing Program does not exempt BLM from needing to conduct an 810 analysis for this specific lease sale. Moreover, the Tribes have significant and unresolved concerns with the ANILCA Section 810 process undertaken at the Leasing Program stage and these concerns are currently the subject of litigation in U.S. District Court. And as shown in the attached letters from the Tribes to BLM, the ANILCA Section 810 process and analysis conducted at the Leasing Program stage were inadequate and legally deficient. Before BLM can move forward with the Coastal Plain lease sale, it must first remedy the legal deficiencies of the ANILCA Section 810 analysis undertaken at the

[20] 16 U.S.C. § 3120(a).
[21] 16 U.S.C. § 3120(a) (emphasis added).
[22] U.S. Bureau of Land Mgmt., Instruction Memorandum No. AK-2011-008: Compliance with ANILCA Section 810 at 1-1 (2011) (emphasis added) ("Conducting ANILCA 810 evaluations in Alaska on public lands is mandatory for virtually all Federal land use decisions . . . ."); *id.* at 1–2 (listing actions that Section 810 evaluations are not required for, neither of which includes a lease sale).

Leasing Program stage and conduct an additional ANILCA Section 810 process specific to the leasing tracts detailed in the Call for Nominations.

B. NHPA Section 106

The NHPA seeks to "foster the conditions under which our modern society and our historic property can exist in productive harmony and fulfill the social, economic, and other requirements of present and future generations."[23] The NHPA includes a "series of measures designed to encourage preservation of sites and structures of historic, architectural, or cultural significance."[24] To achieve this "productive harmony" between "our modern society and our historic property," Congress enacted § 106 of the NHPA. Section 106 provides:

> The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent federal agency having authority to license any undertaking, prior to the approval of the expenditure of any Federal funds or prior to the issuance of any license, shall take into account the effect of the undertaking on any historic property. The head of the Federal agency shall afford the [ACHP] a reasonable opportunity to comment with regard to the undertaking.[25]

The goal of the NHPA § 106 process is to "identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties."[26] "The section 106 process seeks to accommodate historic preservation concerns with the needs of Federal undertakings."[27] The NHPA § 106 process is a "'stop, look, and listen' provision that requires each federal agency to consider the effects of its programs" on historic properties.[28]

The Tribes participated in BLM's NHPA Section 106 process for the Leasing Program EIS as a consulting party. During this process, the Tribes consistently maintained that the proposed oil and gas leasing program would cause harm to the Tribes and their members as well as maintaining that the NHPA Section 106 process undertaken by BLM was legally deficient and inadequate. Indeed, as detailed in the Tribes challenge to BLM's Section 106 process in U.S. District Court, BLM failed to initiate the Section 106 process early enough in the development of the Leasing Program for it to inform the development, evaluation, and selection of Leasing Program alternatives evaluated in the NEPA process and the selection of the final Leasing Program alternative in the ROD.

In violation of the NHPA's legal mandates, BLM only considered alternatives maximizing oil and gas development and failed to develop and consider an adequate range of alternatives that would

[23] 54 U.S.C. § 300101(1).
[24] *Pit River Tribe v. U.S. Forest Serv.*, 469 F.3d 768, 787 (9th Cir. 2006) (internal citation omitted).
[25] 54 U.S.C. § 306108.
[26] 36 C.F.R. § 800.1(a).
[27] *Id.*
[28] *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 805 (9th Cir. 1999) (citation omitted).

avoid, minimize, or mitigate adverse effects on historic properties.[29] BLM also improperly limited the scope of the Section 106 process by failing to take into account the Leasing Program's adverse effects on landscape-level historic properties of traditional religious and cultural significance to the Tribes. This violation of NHPA, currently undergoing legal challenges, has resulted in a Call for Nominations process that unlawfully includes all lands in the Coastal Plain without consideration to cultural resources and alternatives and modifications to the Leasing Program that would avoid, minimize, or mitigate adverse effects on cultural and historic resources.

BLM cannot rely on its legally-deficient Section 106 process at the Leasing Program stage to meet its NHPA obligations at the lease sale stage. Before BLM can move forward with the Coastal Plain lease sale, it must first remedy the legal deficiencies of the NHPA Section 106 analysis undertaken at the Leasing Program stage and conduct an additional NHPA Section 106 process specific to the leasing tracts detailed in the Call for Nominations.

IV. Leasing Program NEPA Analysis Inadequate to Support Lease Sale; A Site-Specific EIS is Required

Throughout the Leasing Program NEPA process, BLM deferred to future NEPA analyses for site-specific determinations of impacts to, among other things, Porcupine Caribou Herd and other migratory species, subsistence, cultural resources, sociocultural systems, public health, and food security. Notable excerpts from BLM's ROD show the agency's intention to put off site-specific analysis to future stages of the leasing process:

- "Future on-the-ground actions requiring BLM approval, including potential exploration, development, production and transportation proposals, will require further NEPA analysis based on site-specific proposals."[30]
- "BLM cannot ascertain the precise extent of the effects of granting those rights until it receives and reviews potential future site-specific proposals for exploration and development…"[31]

BLM can no longer defer site-specific analysis of direct, indirect, and cumulative impacts under NEPA and must conduct this analysis prior to holding a lease sale. NEPA requires that agencies evaluate the environmental consequences of a project at an early stage of the planning process. While agencies can "defer detailed analysis until a concrete development proposal crystallizes the dimensions of a project's probable environmental consequences,"[32] agencies are required to undertake site-specific analysis prior to making an irretrievable commitment of resources. An agency is required to fully evaluate site-specific impacts once it reaches the point of making "a critical decision . . . to act on site development."[33] An agency must undertake site-specific review when it proposes to make an irreversible and irretrievable commitment of resources.[34] In the oil

[29] *See* 36 C.F.R. §§ 800.1(c); 800.6(a); 800.8(a)(2).
[30] BLM, Coastal Plain Oil and Gas Leasing Program Record of Decision (Aug. 2020), at p. 5.
[31] *Id*. at p. 14.
[32] *Cal. v. Block*, 690 F.2d 753, 761 (9th Cir. 1982).
[33] *Friends of Yosemite Valley*, 348 F.3d at 800 (quoting *N. Alaska Envtl. Ctr. v. Lujan*, 961 F.2d 886, 890–91 (9th Cir. 1992)); *see also Cal. v. Block*, 690 F.2d 753, 761 (9th Cir. 1982) ("The standards normally applied to assess an EIS require further refinement when a largely programmatic EIS is reviewed.").
[34] *Block*, 690 F.2d at 761.

and gas leasing context, this occurs when an agency decides to issue a lease that does not contain an express provision retaining the agency's authority to fully prohibit later activities on those leases.[35] Here, BLM has acknowledged that in issuing leases it will make an irretrievable commitment of resources, and the Secretary himself stated that the "rights conferred under these leases are extraordinary" and that they "guarantee [] rights away."[36] Once this decision-point is reached, "any vague prior programmatic statements are no longer enough" to satisfy NEPA.[37]

Thus, NEPA requires that BLM must now take a hard look at the direct, indirect, and cumulative effects of its proposed action.[38] To meet NEPA's hard look requirement, the BLM must provide a thorough, science-based analysis of the impacts associated with all phases of the proposed oil and gas development program—including exploration, leasing, development, and reclamation. Effects that must be considered include "ecological . . . , aesthetic, historic, cultural, economic, social, [and] health."[39] BLM's Leasing Program Final EIS falls short of NEPA's hard look standard by using insufficient and inaccurate data; inadequately identifying and mischaracterizing impacts; avoiding any site-specific analysis of impacts and, as detailed in the attached prior submissions to BLM from the Tribes, failing to incorporate the information provided by the Tribes throughout the Leasing Program's NEPA, NHPA, ANILCA processes.

BLM's failure to conduct site-specific analysis of impacts is particularly egregious as related to impacts from leasing on the Coastal Plain to cultural resources. The archaeological data relied on by BLM for the cultural resource analysis in the Final EIS was grossly inadequate to support informed decision-making or comply with NEPA requirements. Indeed, BLM admitted that "[o]verall, *vast inland areas of the program area have received little to no systematic investigation for cultural resources*; while the coastal region has been the subject of a greater number of survey efforts."[40] The only broad archaeological survey of inland areas of the Coastal Plain was conducted in 1982,[41] before the advent of GPS and other modern surveying technologies. BLM has acknowledged that "[*m*]*any of the sites in the program area were documented before the use of global positioning systems, so the reported sites may not be accurate*."[42] Even at the time, FWS pointed out major limitations in the 1982 survey:

> Former surveys focused on *very limited geographic areas* and, generally, selectively sampled only some of the locales where archeologists expected to find sites, thereby *skipping areas assumed to have low site frequencies*. This has left

[35] *Conner v. Burford*, 848 F.2d 1441, 1448 (9th Cir. 1988). The Ninth Circuit recently reaffirmed the requirement for a site-specific analysis in *Northern Alaska Environmental Center v. U.S. Department of the Interior*, 965 F.3d 705 (9th Cir. 2020). The court stated that a lease sale is "an irretrievable commitment of resources necessitating site-specific analysis in an EIS." *Id.* at 714.
[36] House Committee on Appropriations, Department of the Interior Budget Request for FY2021, (1:53:40) (Mar. 11, 2020), video available at https://appropriations.house.gov/events/hearings/department-of-the-interior-budget-request-for-fy2021.
[37] *Pit River Tribe v. U.S. Forest Serv.*, 469 F.3d 768, 784 (9th Cir. 2006).
[38] *See Native Ecosystems Council v. Marten*, 883 F.3d 783, 795 (9th Cir. 2018).
[39] 40 C.F.R. § 1508.8.
[40] BLM, Coastal Plain Oil and Gas Leasing Program Final EIS, at p. 3-210 (emphasis added).
[41] *See id*.
[42] *Id*. at p. 3-213 (emphasis added).

> *large gaps in the data base* regarding settlement system and changing land use patterns and the basic chronology of the cultural occupation sequences.[43]

The cultural resources analysis in the Final EIS thus relies primarily on an archaeological survey conducted almost forty years ago for inland areas of the Coastal Plain and on a coastal survey conducted nine years ago that was limited to known sites in only some of the coastal areas. This data is utterly insufficient to inform BLM's decision-making for the Leasing Program. Cultural resource surveys are routinely prepared and not exorbitantly expensive, and adverse impacts on archaeological resources from large-scale, intensive seismic exploration activity are reasonably foreseeable.

Reasonably up-to-date and comprehensive cultural resources information is required by NEPA and is essential to reasoned decision-making. NEPA seeks to ensure the use of "high quality" scientific information,[44] and it mandates "scientific integrity."[45] In the absence of adequate baseline data, "there is simply no way to determine what effect the proposed [action] will have on the environment and, consequently, no way to comply with NEPA."[46] Where "incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant," the agency "shall include" the information in the EIS."[47] An agency's reliance on incomplete or outdated information regarding potential cultural resources is unlawful.[48]

BLM has had ample time to acquire useful archaeological and cultural resources data since the Tax Act opened the Coastal Plain to such development three years ago. BLM's failure to do so violates NEPA requirements and is the basis of one of the Tribes' challenges in U.S. District Court. BLM should delay a lease sale until the agency can obtain the archaeological and cultural resources data necessary to conduct a complete and site-specific NEPA analysis of the direct, indirect, and cumulative impacts to cultural resources on the Coastal Plain. BLM could have, and should still, conduct the necessary surveys in 2021.

Finally, BLM cannot tier to the Leasing Program Final EIS to satisfy its NEPA obligations for the lease sale. As an initial matter, and as described in the attached comment letters to BLM, the Tribes identified multiple ways in which BLM's analysis in the EIS was insufficient. BLM did not remedy these failings in the Final EIS and the Tribes have challenged BLM's Final EIS in federal court. BLM's failure to properly analyze the impacts of an oil and gas program on the Coastal Plain means BLM cannot to solely rely on the Leasing Program Final EIS to satisfy its NEPA obligations for the lease sale. In addition, BLM cannot rely on the Leasing Program Final EIS to meet its obligation under NEPA to evaluate alternatives because information vital to the analysis of alternatives suggested by the Tribes was excluded from consideration. Prior to holding the lease

[43] FWS, Proposed Oil and Gas Exploration Within the Coastal Plain of the Arctic National Wildlife Refuge, Alaska, Final EIS and Preliminary Final Regulations (1983) (emphasis added).
[44] 40 C.F.R. § 1500.1(b).
[45] *Id*. § 1502.24.
[46] *Half Moon Bay Fish. Mktg. Ass'n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988).
[47] 40 C.F.R. § 1502.22(a).
[48] *Indig. Envtl. Network*, 347 F. Supp. 3d at 581 ("The Department appears to have jumped the gun when it issued the ROD in 2017 and acted on incomplete information regarding potential cultural resources along the 1,038 acres of unsurveyed route.")

sale, BLM must conduct additional NEPA analysis to remedy the hard-look failures in the Leasing Program Final EIS and reconsider its analysis of alternatives before it can hold a lease sale.

V. BLM Has Improperly Issued a Call for Nominations While Failing to Comply with Legal Mandates Related to Arctic Refuge Leasing Decisions

A. Tax Act Directives and Surface Development Limitation

BLM must comply with the directives in the Tax Act for the lease sale. The Tax Act provides that the Secretary of the Interior "shall authorize up to 2,000 surface acres of Federal land on the Coastal Plain to be covered by production and support facilities (including airstrips and any areas covered by gravel berms or piers for support of pipelines) during the term of the leases under the oil and gas program under this section."[49] This 2,000 acre limit was touted during proceedings leading to the passage of the legislation as a way to prevent harm to Coastal Plain resources.[50]

In the Draft EIS, BLM stated it would limit to 2,000 acres "the total number of surface acres of all Federal land across the Coastal Plain, regardless of whether such land is leased, which may be covered by production and support facilities at any given time."[51] That is, BLM interpreted the limitation to be a rolling limit, as opposed to a cumulative cap on impacted acreage.[52] BLM also stated that the 2,000-acre limitation would not apply to gravel mines.[53] And in its Final EIS, BLM re-stated its interpretation that it would allow acreage to be reclaimed and new acreage to be developed, potentially in excess of 2,000 acres over time.[54] However, in its ROD, BLM backtracked on the 2,000 acre limitation and interpreted this provision to mean that it cannot authorize surface development in any amount less than 2,000 acres in connection with the Leasing Program and that this provision mandates that facilities counting toward the 2,000 acres must be both "production" *and* "support facilities"[55] and that facilities such as airstrips, roads, pads, gravel pits and stockpiles, and barge landing and storage facilities may or may not be counted toward the 2,000 acres by future decisionmakers, and the rights-of-way and easements necessitating lease activities are not subject to the 2,000 acre limitation.

This most recent interpretation of the 2,000 acre provision, described in the ROD, differs from BLM's interpretation of the 2,000 acre provision in the Draft EIS and Final EIS. As described in the Tribes lawsuit in U.S. District Court, BLM's interpretation is unlawful and erroneous and violates the plain meaning and intent of the 2,000-acre limitation in the Tax Act. Moreover, BLM's

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[49] Pub. L. No. 115-97, § 20001(c)(3).
[50] Chairman Lisa Murkowski, Opening Statement, Full Committee Reconciliation Markup, U.S. Senate Committee on Energy and Natural Resources (Nov. 15, 2017) ("Alaskans know that we must balance the potential impacts of development. And I will be the first to agree that the environment and local wildlife will always be a concern, and that's why we have not avoided environmental review. . . . And that's why we have limited surface development to a total of just 2,000 federal acres."), *available at*: https://www.energy.senate.gov/public/index.cfm/files/serve?File_id=5B08FB7E-B82C-488F-9627-D78DEAF2EBC1.
[51] Draft EIS vol. 1 at p. 1-6 (emphasis in original).
[52] *Id.*
[53] *Id.*
[54] U.S. Dep't of the Interior, Bureau of Land Mgmt., Coastal Plain Oil and Gas Leasing Program Final Environmental Impact Statement at p. 2-44.
[55] U.S. Dep't of the Interior & BLM, Coastal Plain Oil and Gas Leasing Program Record of Decision at p. 13.

changing interpretation means that because there are now many facilities ineligible to be counted toward the 2,000 acres and many others that potentially will not be counted toward the 2,000 acres by future decision-makers, the acreage associated with surface development could far exceed 2,000 acres and, as a result, the EIS may actually understate environmental impacts or otherwise inaccurately characterize impacts.

BLM has developed and approved the Leasing Program in reliance on an erroneous and unlawful statutory interpretation, and is moving forward with its lease sale based on an unlawful interpretation that would allow surface infrastructure associated with the Leasing Program to cover more than 2,000 acres, in violation of the Tax Act. This issue is currently being litigated and BLM should not move forward with any lease sale that relies on such a dubious legal proposition.

B. Refuge Compatibility Determination and Comprehensive Conservation Plan

A compatibility determination from U.S. Fish and Wildlife Service (USFWS) is required before BLM can hold a lease sale. Compatibility is a cornerstone of refuge management and, under the National Wildlife Refuge System Administration Act ("Refuge Act"), BLM "shall not initiate or permit a new use of a refuge or expand, renew, or extend an existing use of a refuge, unless the Secretary has determined that the use is a compatible use."[56] A use is "compatible" if it will not "materially interfere with or detract from the fulfillment of the mission of the [National Wildlife Refuge] System or the purposes of the refuge."[57] Compatibility determinations must be in writing and based on the Secretary's "sound professional judgment."[58] The compatibility requirement obliges BLM to determine whether proposed "uses are compatible with the major purposes for which such areas were established."[59] The Refuge Act is clear that a new use cannot be permitted until a compatibility determination is made, which requires a public comment opportunity.[60]

Indeed, BLM has recognized this legal obligation. In its responses to cooperating agency comments on the Leasing Program Final EIS and concerns that BLM's leasing program would contradict the Refuge's purposes and designations, BLM stated:

> After BLM issues its record of decision for the Leasing EIS, establishing the particulars of the leasing program, the FWS will undertake a revision of its CCP [Comprehensive Conservation Plan] to conform it to the Tax Act's addition of the fifth (oil and gas program) Refuge purpose on the Coastal Plain in light of BLM's oil and gas program.[61]

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[56] 16 U.S.C. § 668dd(d)(3(A)(i). Under ANILCA, the Arctic Refuge and other refuges "shall be administered" by the Secretary of the Interior "in accordance with the laws governing the administration of units of the National Wildlife Refuge System and [ANILCA]." ANILCA § 304(a), Pub. L. No. 96-487, 94 Stat. 2371.
[57] *Id.* § 668ee(1).
[58] 50 C.F.R. § 25.12.
[59] 16 U.S.C. § 668dd(d)(1)(A).
[60] *Id.* § 668dd(d)(1)(A), (d)(3)(B); 50 C.F.R. § 26.41.
[61] BLM and Cooperating Agency Comments on Administrative Final Review EIS (July 22, 2019), at pp. 2-3, available at: https://eplanning.blm.gov/public_projects/nepa/102555/20004813/250005681/Preliminary_Final_EIS_Agency_Review_-_Comments_and_Responses.pdf.

A compatibility determination has not occurred and the Tribes are challenging this violation of the Refuge Act and ANILCA in its lawsuit in U.S. District Court.

Congress waived no legal requirements when it passed the Tax Act.[62] Therefore, BLM must comply with the mandates of the Refuge Act and ANILCA. Nothing alleviates BLM's legal obligations under these laws and a lease sale cannot proceed prior to completion of a compatibility determination by USFWS to ensure that all Coastal Plain purposes are protected. BLM should withdraw the notice of lease sale until a compatibility determination, complete with the opportunity for a public comment period and government-to-government consultation with the Tribes, is undertaken.

VI. No Countervailing Need for a Rushed Process

As described in sections III, IV, and V herein, BLM in its rush to push through lease sales on the Coastal Plain despite opposition from the Tribes has ignored its legal duties under ANILCA, NHPA, NEPA, and failed to comply with legal mandates related to the Tax Act and the Refuge. BLM's action to notice a lease sale during the open comment period on this Call for Nominations was extremely inappropriate, inconsistent with BLM's regulations[63] and past practices, and is evidence that the agency does not intend to fully consider the Tribes' concerns and comments during this Call for Nominations process.

It is not clear to the Tribes how BLM will review comments submitted on December 17, 2020 in a meaningful manner as to inform a lease sale where bids are to be received from December 21 to 31, 2020. It is not feasible for BLM to receive and meaningfully consider information from the Tribes on tracts to offer, tract size, and special terms or stipulations to inform a lease sale while at the same time actively soliciting and receiving bids on tracts noticed with stipulations and lease terms already identified. Indeed, as evidenced in news articles, BLM's only apparent goal is to issue final leases before the transition to the Biden Administration next month.[64]

The irreparable harm to the Tribes, the Coastal Plain, wildlife, and tribal archaeological and cultural resources as described herein and in the attachments, the actions of BLM moving forward with a lease sale and violating its trust responsibility to the Tribes and its obligations under ANILCA, NHPA, and NEPA, as well as the ongoing litigation challenging BLM's Leasing Program, counsel that the agency not move forward with a lease sale for any tracts described in this Call for Nominations unless and until these legal deficiencies are resolved and the agency undertakes meaningful consultation with the Tribes as required under its trust responsibility as well as NHPA and ANILCA.

Indeed, there is no countervailing need to rush to issue oil and gas leases for the Coastal Plain. Global demand for oil is low as the global pandemic and associated economic slump have reshaped

[62] *See, e.g.*, Senator Lisa Murkowski, Floor Speech on Reconciliation Legislation (November 30, 2017), www.murkowski.senate.gov/press/speech/floor-speech-reconciliation-legislation-tax-reform.
[63] BLM's regulations at 43 C.F.R. §§ 3131.1, 3131.2, 3131.3 set out a process for BLM to consider information received during a Call for Nominations prior to making decisions about tracts to lease and additional terms or stipulations to impose.
[64] New York Times, *Sale of Arctic Refuge Oil and Gas Leases Is Set for Early January* (Dec. 3, 2020), https://www.nytimes.com/2020/12/03/climate/arctic-refuge-lease-sales.html.

economic systems and behaviors. In addition, major banks and lending institutions have announced that they will not fund Arctic oil and gas projects,[65] and former Alaska governor Frank Murkowski acknowledges that "there has been no indication from the producers of an intent to bid on the tracts."[66] BLM cannot be expecting immediate tax revenue, enhanced national security, or other benefits from the exploration and development of a new, largely unexplored region with uncertain oil and gas reserves and highly challenging terrain and weather conditions that will make any future development slow and arduous.

VII. Conclusion

For the reasons discussed above and in the Tribes' prior comments and litigation filings relating to the Coastal Plain Leasing Program, oil and gas development on the Coastal Plain of the Arctic Refuge threatens the Tribes' way of life, is incompatible with responsible stewardship of the Sacred Place Where Life Begins, and should not be approved. Leasing any part of the 32 tracts described in the Call for Nominations would facilitate oil and gas development incompatible with such a revered place.

In addition, BLM must conduct more a robust and site-specific analysis of the impacts of the lease sale under NEPA, NHPA, and ANILCA before it can move forward with offering leases. Instead of rushing to lease the Coastal Plain, BLM should listen to the Tribes' concerns and refrain from holding a hasty, ill-considered lease sale. BLM must comply with all applicable statutes and regulations, and it must engage the Tribes and the public in a meaningful way to ensure that the agency, Tribes, and the public are fully informed before the final decision is made.

[65] BankTrack, Banks and Arctic oil and gas, https://www.banktrack.org/campaign/banks_and_arctic_oil_and_gas.
[66] https://www.adn.com/opinions/2020/12/16/alaska-should-bid-on-anwr-oil-leases-itself/.

Enclosure 2

Comments from The Native Village of Venetie Tribal Government, The Arctic Village Council, and The Venetie Village Council
on Seismic Scoping (Nov. 6, 2020)

NATIVE VILLAGE OF VENETIE TRIBAL GOVERNMENT
ARCTIC VILLAGE COUNCIL
VENETIE VILLAGE COUNCIL

November 6, 2020

Via Electronic Mail to:

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Re: Comments on Proposed Marsh Creek East Seismic Exploration, DOI-BLM-AK-R000-2021-0001-EA (Oct. 23, 2020)

Dear Mr. Padgett and Ms. LaMarr:

The Native Village of Venetie Tribal Government, Arctic Village Council, and Venetie Village Council (collectively "the Tribes") submit these comments in response to the Proposed Action and Plan of Operations posted recently on the U.S. Bureau of Land Management's ("BLM") website pertaining to the Marsh Creek East Seismic Exploration program proposed by Kaktovik Iñupiat Corporation ("KIC") to be carried out on the Coastal Plain of the Arctic National Wildlife Refuge beginning in December 2020.[1] Each of the commenters is the governing body of a federally recognized Gwich'in Tribe. These Tribal communities are situated near the boundaries of the Arctic Refuge, and they depend on the caribou, migratory birds, and other subsistence resources supported by the Coastal Plain for their culture, identity, spirituality, and way of life. For the reasons discussed below, the Tribes urge BLM to reject this ill-conceived and highly destructive seismic exploration proposal.

I. Background

The Coastal Plain of the Arctic Refuge is a majestic landscape of profound importance to the Gwich'in people. It is an area of rolling hills, small lakes, and braided rivers weaving through tundra, and it stretches southward from barrier islands in the Beaufort Sea to the foothills of the Brooks Range. The Coastal Plain serves as the calving grounds for the Porcupine Caribou Herd, which migrates there in the summer to give birth, raise their young, seek relief from insects, avoid predators, and forage on high quality tundra vegetation.

[1] *See* BLM, National NEPA Register, Marsh Creek East Seismic Exploration (Oct. 23, 2020), https://eplanning.blm.gov/eplanning-ui/project/2003258/510.

Gwich'in people in the communities of Arctic Village and Venetie enjoy a close and lasting relationship with these caribou, which pass through their lands on their annual migration. Caribou are entwined in Gwich'in stories, songs, worldview, spirituality, and traditions, and caribou are fundamental to their very existence. For Gwich'in, the Coastal Plain is Iizhik Gwats'an Gwandaii Goodlit, the "Sacred Place Where Life Begins." In addition to caribou, migratory birds flock to the Coastal Plain in huge numbers and thrive in and around its wild rivers, streams, lakes, tundra, and lagoons. Gwich'in people hunt geese, gather eggs, and otherwise rely on migratory bird resources as part of their subsistence way of life as well.

In 2018 and 2019, BLM and other federal agencies conducted environmental, subsistence, and historic property reviews in connection with the proposed Coastal Plain Oil and Gas Leasing Program. The Tribes participated extensively in these agency processes. The Tribes engaged in government-to-government consultation with the BLM, participated as cooperating agencies in the National Environmental Protection Act ("NEPA") review process, and participated as consulting parties in the National Historic Preservation Act ("NHPA") Section 106 process. Tribal leaders and members also gave testimony at public meetings and submitted written comments. The Tribes repeatedly emphasized the devastating impacts that oil and gas exploration and development would have on wildlife, habitat, subsistence, historic properties, and other resources and values of the Arctic Refuge. The Tribes expressed their categorical opposition to the Leasing Program, and they urged the agencies to fully analyze and mitigate its adverse effects. The agencies largely ignored the Tribes' objections and approved the Leasing Program based on grossly inadequate and unlawful review processes in August 2020.

The Tribes have initiated a lawsuit challenging the final record of decision ("ROD") for the Leasing Program, as well as the associated environmental impact statement ("EIS"), the Alaska National Interest Lands Conservation Act ("ANILCA") § 810 subsistence evaluation, and the NHPA § 106 process and Programmatic Agreement ("PA") pertaining to historic properties.[2] Three other lawsuits have also been filed challenging the agencies' processes and decisions concerning the Leasing Program.[3]

On a separate track, in the spring of 2018, SAExploration, Inc. submitted a proposal for intensive pre-leasing seismic survey activities throughout the entire Coastal Plain. In the summer of 2018, BLM initiated a NEPA review for these activities, but this process was eventually abandoned. SAExploration and its executives have recently become the targets of a U.S. Securities and Exchange Commission (SEC) enforcement action based on extensive fraudulent activities over several years.[4] SAExploration has also filed for Chapter 11 bankruptcy.[5] Even though the enforcement action and bankruptcy raise major questions concerning SAExploration's

[2] *See Native Village of Venetie Tribal Gov't v. Bernhardt*, 3:20-cv-00223-SLG (D. Alaska).
[3] *Gwich'in Steering Comm. v. Bernhardt*, 3:20-cv-00204-SLG (D. Alaska); *State of Washington v. Bernhardt*, 3:20-cv-00224-SLG (D. Alaska); *National Audubon Soc'y v. Bernhardt*, No. 3:20-cv-00205-SLG (D. Alaska).
[4] *See U.S. Secs. Exch. Comm'n v. SAExploration Holdings, Inc*., 1:20-cv-8423 (S.D.N.Y.).
[5] *See In re SAEXploration Holdings, Inc*., *et al*., 20-34306, 20-34307, 20-34308, 20-34309, 20-34310 (MI) (S.D. Tex. Bankr.).

operational capabilities, financial stability, and trustworthiness, KIC has expressed its intention for SAExploration to serve as the project operator for the Marsh Creek seismic program.[6]

II. Pre-Leasing Seismic Proposal

KIC is proposing to conduct intensive 3D seismic exploration during the 2020-2021 winter season on approximately 848 square miles of land, including 450,000 acres of the Coastal Plain within the Arctic Refuge as well as 92,000 of KIC-owned surface lands with subsurface resources owned by the Arctic Slope Regional Corporation.

KIC proposes to conduct seismic exploration using approximately 3,237 miles of source lines spaced 1,320 feet apart with sampling taking place every 27.5 feet along each line, and the data would be gathered along 6,459 miles of receiver lines spaced 660 feet apart and placed perpendicular to the source lines. Twelve 90,000-pound tracked vibrator vehicles could operate at the same time. Each of the lines would be traveled multiple times by crews for placement and retrieval of the lines and nodes, and the work would be conducted around the clock with two 12-hour personnel shifts per day.

In order to carry out these activities, KIC and SAExploration propose to drag 40 to 50 trailers in strings 136.5 miles across the tundra from Deadhorse to Kaktovik or, as a less preferred alternative, along a shorter sea ice route. This massive mobilization would provide camp facilities for a workforce of up to 180 workers, along with fuel tanks, incinerators, tracked vehicles, trucks, and other industrial equipment. The camp would not just be set up in one location. It would be moved 1 to 2 miles every 5 to 7 days throughout the winter season. Thousands of gallons of water would be obtained through snow melting and/or water withdrawals from nearby lakes. Temporary airstrips would be constructed on lakes and/or tundra for resupplies and personnel transport. Numerous airplane takeoffs and landings would occur throughout the winter season. In addition, about 450 to 600 helicopter takeoffs and landings would occur during a 15-day summer debris cleanup operation.

Beyond the basic project elements described above, many aspects of the seismic proposal remain vague or unknown, such as (1) how much of the 848 square-mile area would be surveyed during this coming winter and how many additional seasons would be needed to complete the work; (2) the details of the mobilization route from Deadhorse to Kaktovik; (3) the locations of the camps and the routes between them; (4) the anticipated number and timing of air and overland trips for fuel, water, supply deliveries, and personnel transport; (5) the seasonal start and end dates for the seismic operations; (6) the number and locations of water withdrawal sites and the amounts of water available in them; (7) the number and locations of temporary airstrips; and (8) plans for remediation of damage to the tundra or other resources.

Instead of carefully planning the proposed seismic operations ahead of time, KIC and BLM appear to be assuming that these and other details will be determined in the field on an ongoing

[6] *See* KIC, Marsh Creek East Program, Plan of Operations, at 4, 39 (posted online Oct. 23, 2020) (hereinafter "Plan of Operations"); BLM, Marsh Creek East Seismic Exploration, Proposed Action, at 4 (posted online Oct. 23, 2020) (hereinafter "Proposed Action").

basis as the program is being carried out. This cavalier approach is wholly unacceptable in a region sacred to Gwich'in people and highly sensitive to disturbances from industrial activity.

III. Adverse Impacts

Intensive seismic activities—like those planned in the KIC proposal—are likely to have serious, long-term impacts on tundra, vegetation, caribou, birds, subsistence, historic properties, and other important resources and values of the Coastal Plain.

BLM has acknowledged that seismic exploration and related industrial activities have the potential to cause serious harm to tundra, vegetation, and the underlying permafrost on the Coastal Plain. Vegetation in this Arctic region is generally slow-growing and sensitive to disturbance. Seismic exploration conducted in the 1980s, for instance, left scars on the landscape that have remained visible for decades. The KIC proposal would use an even denser grid, which would make these impacts even more severe. Indeed, recent seismic exploration conducted at Point Thomson, Kavik, and Deadhorse, using the same methods as those being proposed here, caused substantial damage to the tundra that has remained visible long afterward. The Coastal Plain is also much hillier than these areas to the west, and steeper terrain has been shown to result in deeper scars from seismic vehicles.

Damage to the tundra from seismic operations is more than just aesthetic. Seismic vehicles create ruts that can dewater ponds, change hydrology patterns, alter snow accumulation, and cause other widespread changes to the landscape. Heavy vehicles also compress soils, cause thawing of permafrost, and increase the risk of thermokarst features that transform the landscape through subsidence, erosion, channelization, ponding, methane releases, and synergistic effects as these changes interlink and spread across a broad area.

Seismic exploration and related transportation, camp facilities, fuel spills, pollution, and other industrial activities have the potential to destroy the specific high-quality vegetation that caribou mothers and calves seek out and depend on for their nutrition and energy needs in the sensitive post-calving period. These plants can end up being replaced with less suitable forage vegetation or invasive species. The Coastal Plain currently provides outstanding calving and rearing habitat for caribou, supporting a healthy population in the Porcupine Caribou Herd while other caribou populations across the U.S., Canadian, and Russian regions of the Arctic are struggling due to climate change and other disruptions. The exceptionally high-quality habitat of the Coastal Plain could be seriously degraded by KIC's proposed seismic activity, with corresponding adverse effects on caribou.

Alteration of the wetlands, ponds, vegetation, and hydrology across vast areas of the Coastal Plain could also adversely affect migratory bird populations. Huge numbers of birds migrate across six continents to reach the Coastal Plain precisely because it provides the birds with an abundant habitat rich with food resources. Degradation of the landscape through seismic exploration could cause the Coastal Plain to become less suitable for certain migratory species, and it could end up supporting fewer birds overall.

Caribou and migratory birds could also be adversely impacted more directly by seismic activities. Summer cleanup operations would occur during times when both caribou and

migratory birds are present, and fall and spring seismic operations could overlap with their migratory arrival and/or departure times. The noise and vibration of airplane and helicopter overflights can be highly disturbing to wildlife, especially when conducted repeatedly and relatively low to the ground, as proposed by KIC. Moreover, seismic operations are proposed to continue through the end of May. Caribou mothers arrive in the spring, and calving begins in late May. The overlap of seismic operations and/or demobilization with the calving period in which caribou are especially vulnerable has the potential to result in substantial adverse impacts on reproductive success. Similarly, the intensive summer helicopter activity is proposed to take place in July and August, right when migratory birds are in their most vulnerable nesting, brood-rearing, and molting stages.

The Coastal Plain is sacred to Gwich'in because it supports caribou, migratory birds, and other wildlife. Their subsistence harvest of these wild resources serves as the core of their identity and culture as Indigenous people. Diminishing the ability of the Coastal Plain to support caribou and wildlife through seismic activity would be a source of grave injury to the Gwich'in people.

IV. Inadequate Agency Review

A. Government-to-Government Consultation

The apparent assumption of KIC and BLM that the only Tribal interests affected by the proposed seismic operations are those of Iñupiat people in the community of Kaktovik is patently incorrect. The Native Village of Venetie Tribal Government, Arctic Village Council, and Venetie Village Council are sovereign Tribal governments for Gwich'in communities that depend on the Porcupine Caribou Herd and several migratory bird species that, in turn, rely on the Coastal Plain. The KIC seismic proposal clearly has the potential to significantly harm the Tribes and their members. As such, BLM has an obligation to engage in government-to-government consultation with the Tribes prior to any authorization for seismic activity on the Coastal Plain. Such consultation must be respectful of the Tribes' sovereign status and conducted with a sufficient timeframe and in appropriate locations to encourage meaningful participation. Government-to-government consultation must also be informed by an adequately developed project proposal, as well as relevant baseline data and information about potential impacts, alternatives, and mitigation measures.

B. ANILCA Section 810

ANILCA § 810 requires BLM to prepare a full subsistence evaluation and make the substantive findings in connection with the KIC seismic proposal and its impact on subsistence users, including the Tribes and their members. Section 810 outlines a procedure under which effects on subsistence uses must be considered and "provides that actions which would significantly restrict subsistence uses can only be undertaken if they are necessary and if the adverse effects are minimized."[7] In enacting ANILCA, Congress found that "the continuation of the opportunity for subsistence uses . . . is essential to Native physical, economic, traditional, and cultural existence."[8] Congress further found that "continuation of the opportunity for a subsistence way

[7] *Amoco Prod. Co. v. Vill. of Gambell*, 480 U.S. 531, 554 (1987).

[8] 16 U.S.C. § 3111(1).

of life" required the establishment of an administrative structure to "enabl[e] rural residents who have personal knowledge of local conditions and requirements to have a meaningful role in the management of fish and wildlife and of subsistence uses on the public lands in Alaska."[9] Contrary to the purposes underpinning ANILCA, BLM's rushed timeline and the limited information available about the proposed seismic activities precludes meaningful participation by the Tribes, their members, and other subsistence users.

ANILCA § 810 clearly applies to the proposed seismic activities. Federal land agencies must complete a § 810 evaluation when "determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands."[10] BLM's own guidance provides that an ANILCA § 810 evaluation "is mandatory for virtually all Federal land use decisions."[11] Moreover, there no categorical exclusion in the ANILCA § 810 context.[12] Therefore, BLM must complete a full ANILCA § 810 evaluation and make the required substantive findings before making any final decision.

Section 810 imposes a bifurcated process. Under the first step, commonly referred to as a tier-I evaluation, BLM must consider: (1) the effect of the proposed activity "on subsistence uses and needs," (2) "the availability of other lands for the purposes sought to be achieved," and (3) "other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes."[13] Tier-II obligations apply if, after completing the tier-I evaluation, the agency determines that the proposed activity "would significantly restrict subsistence uses."[14] Under tier-II, the agency is prohibited from proceeding with the proposed activity until it gives notice to the appropriate communities, holds hearings in those communities, and makes determinations that: (1) "such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands," (2) "the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes" of the activity, and (3) "reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources."[15]

As noted above, the apparent assumption of KIC and BLM that the only subsistence uses affected by the proposed seismic operations are those of Iñupiat people in the community of Kaktovik is erroneous. The Tribes' interests in subsistence, caribou, and migratory birds are clearly threatened by the KIC seismic proposal, and BLM must consider such impacts. Additionally, BLM must consider alternatives to the proposed activities that will minimize impacts to subsistence uses, such as limiting the area of the Coastal Plain where seismic activities are permitted, prohibiting seismic activities in certain areas, such as calving and post-

[9] *Id.*
[10] *Id.* § 3120(a).
[11] U.S. Bureau of Land Management, Instruction Memorandum AK-2011-008: Instructions and Policy for Compliance with Section 810 the Alaska National Interest Land Conservation Act, 1-1, 2 (2011). Exceptions to conducting a § 810 evaluation "would be very rare" and are not applicable here. See id. at 1-1, 2-1, 3-1 (identifying the exceptions to conducting ANILCA § 810: planning documents related to natural fire and fire suppression and permits for subsistence activities).
[12] *Id.* at 1-1.
[13] 16 U.S.C. § 3120(a).
[14] *Id.*
[15] *Id.*

calving habitat, and timing restrictions to protect migratory species. BLM must also ensure that the minimum amount of public lands are involved in the proposed seismic operations.

As discussed in the Tribes' lawsuit challenging BLM's approval of the Leasing Program, the ANILCA § 810 evaluation prepared in that context was inadequate and unlawful. Its scope also did not encompass site-specific seismic activities. As such, it cannot be relied on to satisfy BLM's ANILCA § 810 obligations relating to the KIC seismic proposal.

C. NHPA Section 106

In relevant part**,** Section 106 of the NHPA provides: "The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally funded undertaking . . . shall take into account the effect of the undertaking on historic property."[16] Section 106 "is a 'stop, look, and listen' provision that requires each federal agency to consider the effects of its programs" on historic properties.[17] The Advisory Council on Historic Preservation ("ACHP") has been delegated exclusive authority to "promulgate regulations as it considered necessary to govern the implementation of section [106] . . . in its entirety."[18] These regulations are promulgated at 36 C.F.R. Part 800. The Ninth Circuit has repeatedly held "that federal agencies must comply with these regulations."[19]

The ACHP's "regulations establish a four-step process" by which federal agencies must fulfill their Section 106 obligations.[20] Step one, "Initiation," requires federal agencies to "determine whether the proposed Federal action is an undertaking . . . and, if so, whether it is the type of activity that has the potential to cause adverse effects on historic properties."[21] Step two, "Identification," requires federal agencies to determine the undertaking's area of potential effects ("APE"),[22] "take the necessary steps to identify historic properties within the [APE],"[23] and "apply the National Register criteria to properties that have not been previously evaluated for National Register eligibility."[24] Step three, "Assessment," requires federal agencies to "apply the adverse effects criteria to historic properties within the [APE]."[25] Step four, "Resolution," requires the federal agency to "develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize, or mitigate adverse effects on historic properties."[26] Efforts to resolve adverse effects are documented in a memorandum of agreement ("MOA").[27] For particularly complex or long-term undertakings where potential effects may not be

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[16] 54 U.S.C. § 306108.
[17] *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 805 (9th Cir. 1999) (quoting *Apache Survival Coal. v. United States*, 21 F.3d 895, 906 (9th Cir. 1994)).
[18] 54 U.S.C. § 304108(a).
[19] Te-Moak Tribe of W. Shoshone of Nev. v. U.S. Dep't Interior, 608 F.3d 592, 607 (9th Cir. 2010) (citations omitted).
[20] *Presidio Historical Ass'n v. Presidio Trust*, No. C12-00522 LB, 2013 WL 2435089, at *4 (N.D. Cal. 2013); *see* 36 C.F.R. §§ 800.3-800.6.
[21] 36 C.F.R. § 800.3(a).
[22] *Id.* § 800.4(a)(1).
[23] *Id.* § 800.4(b).
[24] *Id.* § 800.4(c)(1).
[25] *Id.* § 800.5(a).
[26] *Id.* § 800.6(a).
[27] *Id.* § 800.6(c).

immediately known, federal agencies may develop a programmatic agreement ("PA") to deal with adverse effects and implement future Section 106 obligations.[28]

In carrying out their Section 106 obligations, the NHPA also requires federal agencies to "consult with any Indian tribe . . . that attaches religious and cultural significance to [historic] property,"[29] "that may be affected by an undertaking."[30] Federal agencies must provide tribes "a reasonable opportunity to identify [their] concerns about historic properties, advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, articulate [their] views on the undertaking's effects on such properties, and participate in the resolution of those adverse effects."[31]

The Section 106 process must be complete prior to the approval of the undertaking. The Section 106 process is designed to inform agency decision making. It is not designed to mitigate adverse effects after a decision has been made. To this end, the intent of the Section 106 process is to inform the development, evaluation, and selection of the undertaking's alternatives. The ACHP's regulations, therefore, make clear that the Section 106 process "must be 'initiated early enough in the undertaking's planning, so that a broad range of alternatives may be considered during the planning process for the undertaking.'"[32] Furthermore, in resolving any adverse effects to historic properties identified in the Section 106 process, the ACHP's regulations require the federal agency to "develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize, or mitigate adverse effects on historic properties."[33] The purpose of the Section 106 process is vitiated if it is initiated so late in the process that federal agencies are unable or unwilling to develop and consider alternatives or modifications to the undertaking to avoid, minimize, or mitigate its adverse effects.

While the BLM has initiated the Section 106 process here, it has failed to do so early enough to ensure that it would inform the development, evaluation, and selection of alternatives and to provide the Tribes will a reasonable opportunity to engage, through consultation, in the identification and evaluation of historic properties, the assessment of effects, and the resolution of adverse effects. There is no excuse for the BLM to have initiated the Section 106 process so late in its review of the seismic exploration application. In waiting so long, the BLM has guaranteed that its Section 106 process and any consultations will not be meaningful and its actions will be merely pro forma. This is unlawful and further violates the BLM's trust responsibility to the Tribes.

The BLM has been aware for over two years that seismic exploration within the Refuge is an undertaking that requires Section 106 review. In 2018, when the BLM received its first application to conduct seismic exploration within the Refuge, the BLM initiated the Section 106 process and invited the Tribes to participate as consulting parties. Unfortunately, the BLM never undertook further steps in that Section 106 process; although, its failure to continue to engage in

[28] *Id.* § 800.14(b)(3).
[29] 54 U.S.C. § 302706(b).
[30] 36 C.F.R. § 800.2(c)(2)(ii).
[31] *Id.* § 800.2(c)(2)(ii)(A).
[32] *Pit River Tribe v. U.S. Forest Serv.*, 469 F.3d 768, 787 (9th Cir. 2006) (quoting 36 C.F.R. § 800.1(c)).
[33] 36 C.F.R. § 800.6(a).

the process was mitigated by the fact that the project was scrapped. Even then, however, the BLM's initiation of the Section 106 process was too late, as it invited the Tribes to participate months after receiving the application.

Having already determined that Section 106 is required for seismic exploration, the BLM should have initiated the process as soon as it received the current application. Its failure to do so and decision to wait until now to invite the Tribes to participate is in bad faith and ensures that the process will not be meaningful. Accordingly, the BLM must suspend its work reviewing and approving the seismic application and allow the Section 106 process to proceed so that it can inform whether the exploration is approved, and if so, how it is undertaken. This can only be accomplished through robust and meaningful consultation with the Tribes in identifying and evaluating historic properties, in applying the adverse effect criteria, and in developing and considering alternatives and modifications to the undertaking that would avoid, minimize, and mitigate any adverse effects. The BLM should also be developing a memorandum of agreement or a PA for this undertaking. The development of an MOU or PA must be done in consultation with the Tribes.

Review of BLM's Project Summary and KIC's Plan of Operations reveals two additional inadequacies in the consideration of cultural resources. BLM must remedy these significant deficiencies before authorizing any seismic activities.

Lack of Archaeological Fieldwork. An archaeological survey of the proposed project area must be completed before BLM authorizes any seismic activities. From 2015 to 2020, every winter seismic project on the North Slope has required an archaeological survey or relied on surveys

done within the last ten years to inform the cultural resource assessment.[34,35,36,37,38,39,40,41,42,43,44,45] There have been two broad-scale archaeological surveys of the Coastal Plain. The U.S. Army Corps of Engineers ("USACE") assessed the impacts of climate change on coastal archaeological sites recorded in the Alaska Heritage Resources Survey ("AHRS") in 2011.[46] USACE's research was limited to documented sites and did not include archaeological survey of areas in between known sites. The last comprehensive archaeological survey of the interior of the Coastal Plain was in 1982.[47] On Page 15 of KIC's Plan of Operations, the corporation details their plan for the consideration of cultural resources as the following:

> KIC has commissioned a Cultural Resources Study to identify the historic and cultural resources in the program area. The Cultural Resources Study will inform KIC's operator's activities. Cultural resources known and new that fall within the mapped area will have avoidance buffers placed around them. Any known existing studies will be reviewed. The operator will not be accessing any native allotments without permission of the owners. A licensed archeologist will work with the NSB,

[34] BLM. 2020. *Kuukpik SAE LLC 3D Seismic Survey Winter 2019/2020 Environmental Assessment DOI-BLM-AK-R000-2020-0005-EA*. Electronic document, https://eplanning.blm.gov/eplanning-ui/project/1502646/510, accessed November 1, 2020.
[35] BLM. 2020. *Ocean Point Seismic Environmental Assessment DOI-BLM-AK-R000-2020-0002-EA*. Electronic document, https://eplanning.blm.gov/eplanning-ui/project/1502175/510, accessed November 1, 2020.
[36] Reanier, Richard E. 2019. *Cultural Resources Reconnaissance for the Aklaq South 3D Seismic Program, North Slope, Alaska, for the Years 2015 and 2019*. Prepared for SAExploration, Inc. Document on file at OHA, Anchorage.
[37] Stephen R. Braund & Associates (SRB&A). 2018. *Cultural Resources Report Literature Review, Archaeological and Historic Resources Survey, and Recommendations SAExploration, Inc. Kuupkik 3D Seismic Project*. Prepared for SAExploration, Inc. Document on file at Office of History and Archaeology (OHA), Anchorage.
[38] SRB&A. 2018. *Cultural Resources Report Literature Review, Archaeological and Historic Resources Survey, and Recommendations SAExploration, Inc. Greater Prudhoe Bay 3D Seismic Project*. Prepared for SAExploration, Inc. Document on file at OHA, Anchorage.
[39] BLM. 2017. *Bear 3D Seismic Survey Environmental Assessment DOI-BLM-AKF01000-2017-0041EA*. Electronic document, https://eplanning.blm.gov/eplanning-ui/project/89263/510, accessed November 1, 2020.
[40] Reanier, Richard E. 2016. *Letter Report for the Cultural Resources Reconnaissance for the 2016/2017 GMTU Seismic Program*. Prepared for Caelus Energy Alaska, LLC. Cited in BLM. 2020. *Kuukpik SAE LLC 3D Seismic Survey Winter 2019/2020 Environmental Assessment DOI-BLM-AK-R000-2020-0005-EA*. Electronic document, https://eplanning.blm.gov/eplanning-ui/project/1502646/510, accessed November 1, 2020.
[41] Reanier, Richard E. 2015. *Letter Report for the Geokinetics, Inc. Nuna 3D Seismic Program North Slope, Alaska for the Year 2015*. Prepared for Geokinetics, Inc. Document on file at OHA, Anchorage.
[42] Reanier, Richard E. 2015. *Letter Report for the Geokinetics, Inc. Great Bear West 3D Seismic Program*. North Slope, Alaska for the Year 2015. Prepared for Geokinetics, Inc. Document on file at OHA, Anchorage.
[43] Reanier, Richard E. 2015. *Cultural Resources Letter Report for the SAE Aklaq 3D Seismic Program*. North Slope, Alaska for the Year 2015. Prepared for SAExploration, Inc. Document on file at OHA, Anchorage.
[44] SRB&A. 2015. *Cultural Resources Report Literature Review, Archaeological and Historic Resources Survey, and Recommendations SAExploration, Inc. Ice Wine 3D Seismic Project*. Prepared for SAExploration, Inc. Document on file at OHA, Anchorage.
[45] Reanier, Richard E. 2015. *Letter Report for the Geokinetics, Inc. Icewine 3D Seismic Program*. North Slope, Alaska for the Year 2015. Prepared for Geokinetics, Inc. Document on file at OHA, Anchorage.
[46] Grover, Margan and Erin Ryder. 2011. *Archaeological Survey of the Mid-Beaufort Sea Coast: An Examination of the Impacts of Coastal Changes on Cultural Resources*. Prepared for the Kaktovik Tribal Partnership Program US Army Corps of Engineers, Alaska District. Report on file at OHA, Anchorage.
[47] Hall, Edwin S. 1982. *Preliminary Archaeological and Historic Resource Reconnaissance of the Coastal Plain Area of the Arctic National Wildlife Refuge*, Alaska. Prepared for U.S. Fish and Wildlife Service. Document on file at OHA, Anchorage.

> State of Alaska and the Refuge manager to review existing records. The studies will include the use of the Alaska Heritage Resource Survey (AHRS) database, maintained by the Alaska Department of Natural Resources (ADNR) and the Traditional Land Use Inventory (TLUI) database, maintained by the NSB.[48]

Nichelle Jones, BLM Arctic District Manager, has confirmed that KIC's cultural resources study is solely a review of existing information (i.e., literature review) and does not include fieldwork:

> KIC said [what] they were commissioning is a desktop study (review of past work), not a field study. We do not yet have a copy of a report from the study. Because there was no fieldwork done, BLM did not issue an ARPA permit associated with this project. That was not requested.[49]

The failure to do an archaeological survey of the proposed project area is irresponsible for three reasons. First, as detailed above, an archaeological survey has been performed for all the winter seismic projects on the North Slope from 2015-2020 or the projects have relied on archaeological surveys of the project area conducted in the last 10 years. Second, BLM recognizes the lack of archaeological survey of the 1002 Area in their 2019 Coastal Plain Oil and Gas Leasing Program Final Environmental Impact Statement stating that:

> In general, previous survey efforts focused on identifying archaeological and historic resources in the program area have been concentrated primarily along the coastal region, with fewer investigations along the river systems and little research in the overland areas. A review of the previous surveys module of the [Alaska Heritage Resources Survey] AHRS database (which uses section-level spatial coverage for the program area) revealed 10 literature reviews, 12 reconnaissance surveys, and one intensive survey. A similar review of the document repository module of the AHRS returned 30 records for reports associated with those sections.
>
> Past surveys were primarily concentrated in and around the village of Kaktovik, along the coast and barrier islands of the Beaufort Sea, and along several of the major rivers in the area. Of special note is one wide-area survey of the program area conducted by Edwin Hall (1982) over approximately 20 days, using aerial overflights and limited pedestrian investigation of the coastal area and select river systems. This survey represents the only attempt at systematic coverage of the program area guided by targeted surveys at high potential landforms and topographic settings. Overall, vast inland areas of the program area have received little to no systematic investigation for cultural resources; while the coastal region has been the subject of a greater number of survey efforts.[50]

[48] Plan of Operations, at 15.
[49] Email from Nichelle Jones, BLM Arctic District Manager, to Monty Rogers, M.A., Archaeologist & Owner, Cultural Alaska (Oct. 27, 2020).
[50] BLM, Coastal Plain Oil and Gas Leasing Program: Final Environmental Impact Statement, 3-210 (Sept. 2019) (hereinafter "Final EIS").

Third, the failure to do an archaeological survey prior to the proposed seismic work seems to be contributing to KIC's inability to determine snow routes within the Coastal Plain ahead of time, as a project proponent should do in a responsible and well thought out proposal. In the Project Summary, BLM states: "Predetermined snow routes have not been identified because routes within the Program Area would be located based on snow conditions, camp locations, *results of cultural and wildlife surveys*, local knowledge, community consultation, terrain, and environmental conditions."[51] BLM's statement acknowledges that "cultural surveys," i.e., archaeological surveys, are a requirement that must be completed prior to determining snow routes. BLM should review the Fish and Wildlife Service's ("FWS") thoughts on the adequacy of archaeological surveys in the Coastal Plain in the first EIS for oil and gas exploration in the program area:

> Former surveys focused on very limited geographic areas and, generally, selectively sampled only some [emphasis added] of the locales where archeologists expected to find sites, thereby skipping areas assumed to have low site frequencies. This has left large gaps in the data base regarding settlement system and changing land use patterns and the basic chronology of the cultural occupation sequences.[52]

FWS recognized in 1983 that Edwin Hall's 1982 archaeological survey of the 1002 Area coast and interior that KIC seems to be relying on for this seismic project was "very limited."[53] Relying on a literature review based on primary archaeological surveys conducted nine years ago at known sites along the coast and almost 40 years ago for the interior of the 1002 Area are not adequate to inform BLM's permitting decision-making. To remedy this significant deficiency, an archaeological survey of the project area must be completed and included in a new project proposal.

500-Foot Buffer around Cultural Resources. KIC has proposed a 500-foot buffer for cultural resources in the proposed project area. While this buffer is a start, it should not be the sole protective measure. KIC makes it clear the 500-foot buffer is only for one type of cultural resource listed in a single database. However, researchers documented most of the archaeological and historic sites in the Coastal Plain prior to the use of GPS, making their documented locations prone to errors often greater than 500 feet.

In the Final EIS for the Coastal Plain Oil and Gas Leasing Program, BLM defines cultural resources as: "Culturally valued aspects of the environment that generally include historic properties, other culturally valued pieces of real property, cultural use of the biophysical environment, and intangible sociocultural attributes such as social cohesion, social institutions, lifeways, religious practices, and other cultural institutions."[54] KIC's Plan of Operations outlines a progressive approach for the protection of cultural resources stating that "Cultural resources known and new that fall within the mapped area will have avoidance buffers placed around

[51] Proposed Action, at 3 (emphasis added).
[52] USFWS. 1983. *Proposed Oil and Gas Exploration Within the Coastal Plain of the Arctic National Wildlife Refuge, Alaska*. at S-9. Final Environmental Impact Statement and Preliminary Final Regulations.
[53] *Id*. at S-10.
[54] Final EIS, at Glossary-4.

them."[55] Unfortunately, KIC quickly contradicts this approach by stating in the next paragraph that:

> Previously recorded and any new AHRS sites will not be affected by any of the proposed seismic activities. All areas will have 500-foot buffers placed around them as a non-activity zone. These buffers will be placed in our navigation system and placed on maps to ensure no vehicles enter avoidance areas.

KIC makes it clear that this 500-foot buffer is not for the protection of all cultural resources, but just for a single type of cultural resource. The 500-foot buffer is only for "sites" listed in the AHRS. It is not clear why the 500-foot buffer will not apply to cultural resources listed in the North Slope Borough's Traditional Land Use Inventory (TLUI) or for known cultural resources, such as locations with Indigenous place names, RS-2477 trails, traditional use areas, and cultural landscapes like Iizhik Gwats'an Gwandaii Goodlit, "The Sacred Place Where Life Begins." All sites should be afforded a 500-foot buffer, not just those listed in the AHRS, along with other protective measures.

A 500-foot buffer along with other avoidance, minimization, and mitigation efforts may be appropriate for archaeological and historic sites when their locations are accurate. Sadly, this is not the case for archaeological and historic sites in the proposed project area. This is because researchers documented almost all of the sites prior to the use of GPS. Using paper maps in the field and transferring the site location data from paper field maps to reports and then to paper maps at the Office of History and Archaeology for the AHRS and North Slope Borough for their TLUI provided ample opportunity for location errors easily exceeding 500 feet. BLM acknowledges this in its Coastal Plain Oil and Gas Leasing Program Final EIS, stating, "Many of the sites in the program area were documented before the use of global positioning systems, so the reported sites may not be accurate."[56] SRB&A provides a more detailed explanation of why relocating known sites prior to applying a 500-buffer for winter seismic work:

> In addition to the identification surveys, SRB&A conducted AHRS site revisits to determine if the geographic coordinates for previously documented sites are accurate in order to create a 500 ft (152 m) buffer that would adequately encompass the site in accordance with SAE's avoidance policy for cultural resources. Due to improvements in site location GPS recording capabilities, SRB&A only attempted to relocate sites with locational information documented prior to 2008. For sites documented prior to 2008, SRB&A also reviewed whether other cultural resource professionals have already revisited the sites and if the sites location has been subsequently confirmed/updated. If so, SRB&A did not revisit these sites.[57]

It is peculiar that SAExploration, Inc., who is under contract with KIC to do the proposed seismic work, is not following their own well-established approach that the company has relied

[55] Plan of Operation, at 15.
[56] Final EIS, at 3-213.
[57] SRB&A, Cultural Resources Report Literature Review, Archaeological and Historic Resources Survey, and Recommendations SAExploration, Inc. Greater Prudhoe Bay 3D Seismic Project (2018) (prepared for SAExploration, Inc.). Document on file at OHA, Anchorage.

upon since 2015—relocating all known cultural resources documented without GPS. According to the AHRS, all of the AHRS locations in the proposed project area were documented before 2008, and most of these cultural resources were documented almost 40 years ago. Issues with locations for known archaeological and historic sites has long been an issue in Alaska, as Howard Smith described in 2007 in the *Alaska Journal of Anthropology*:

> Historically Alaska has presented problems in gathering accurate locations, including a near total lack of survey monuments and other cultural features, holes in the coverage of large-scale maps, and terrain that is nearly featureless or covered with dense forest. The availability of inexpensive hand-held global positioning system receivers shows considerable promise for collecting accurate site locations in Alaska.[58]

Archaeologists who documented sites in the 1002 Area prior to the use of GPS faced the very issues Howard Smith described. Relying on these antiquated site locations does not meet the scientific integrity and methodological standards for NEPA because these site location data are likely inaccurate.[59] They are also insufficient to comply with the NHPA and other federal statutes relating to historic and archaeological resources.

The concerns with KIC's 500-foot buffer require three solutions. First, this 500-foot buffer needs to be applied to cultural resources beyond just sites recorded in the AHRS. Second, all known archaeological and historic sites need to be revisited and have their locations confirmed and recorded with a GPS prior to seismic work to ensure the 500-buffers are actually buffering correct locations. Third, supplemental precautionary measures should be adopted to guard against harm to unidentified or misidentified sites.

D. Refuge Act

BLM cannot approve the KIC seismic program unless and until the FWS has made a well-supported determination that this new use is "compatible" with the purposes for which the Refuge was established,[60] which include the preservation of wildlife and habitat and continuing subsistence use.[61] Nothing in the Tax Act of 2017 eliminates this mandatory requirement, and so far, it does not appear that BLM intends to wait for an FWS compatibility determination before approving the proposed seismic activity. In the absence of such a determination, any approval of the KIC seismic proposal would be unlawful.

E. NEPA

It is indisputable that the adverse impacts described above are significant. BLM must prepare an EIS fully analyzing these and all other impacts arising from the KIC seismic proposal. The

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[58] Smith, Howard L., A Brief History of Cultural Resource Management in Alaska. *Alaska Journal of Anthropology* 5(2):17-27. Electronic document, http://www.alaskaanthropology.org/wp-content/uploads/2017/08/Vol_5_2-Smith.pdf, accessed November 2, 2020.
[59] *See* 40 C.F.R. § 1502.23.
[60] 16 U.S.C. § 668dd(d)(1)(A),(d)(3)(B).
[61] 16 U.S.C. § 3101(b)-(c).

suggestion that an environmental assessment ("EA") would be sufficient to evaluate an industrial proposal of this magnitude on lands of deep importance to the Tribes and Gwich'in people as a whole, not to mention some of the most cherished public lands in the nation, is disgraceful and unlawful.

Although there is no NEPA document for the Tribes to review at this time, the main wildlife and subsistence issues discussed in the Proposed Action and Plan of Operation documents relate to polar bears and Iñupiat people in and around Kaktovik. Impacts on caribou, migratory birds, and Gwich'in subsistence interests are not discussed in any detail, and there is no meaningful mitigation designed to reduce such impacts. Each of these categories of impacts must be fully evaluated in an EIS, using the best available science, gathering sufficient baseline and effects data, addressing all direct, indirect, and cumulative impacts, and evaluating the effectiveness of mitigation measures designed to reduce these impacts.

It does not appear that BLM is planning to consider any alternatives to the proposed action as part of its NEPA review. This is unlawful as well. BLM must consider a reasonable range of alternatives to the KIC proposal in its EIS, including a no action alternative and at least one conservation-focused alternative. Such an alternative should include (1) seasonal restrictions to protect caribou and migratory birds; (2) less dense seismic surveying grids; (3) exclusion of high-value vegetation areas; (4) alternative methods of seismic data-gathering that avoid the use of heavy vehicles traveling long distances overland and avoid the need for large work camps; (5) a smaller area of seismic exploration than the 542,000 acres proposed by KIC; (6) more stringent overflight altitude restrictions to avoid disturbing caribou and birds; and other similar elements.

The Tribes have filed a lawsuit challenging BLM's EIS and ROD for the Leasing Program because they are inadequate and unlawful. BLM's NEPA review for the Leasing Program also specifically postponed consideration of seismic exploration until future site-specific activities were proposed. Accordingly, BLM cannot rely on its prior EIS. It must prepare a full EIS analyzing the impacts of seismic activities on the Coastal Plain before approving the KIC proposal.

V. Inadequate Public Participation and Overly Rushed Process

BLM has failed to provide a meaningful opportunity for the Tribes or members of the public to participate. The process is so inadequate that BLM seems to be actively discouraging public participation, and BLM's approach is highly disrespectful of Tribal governments in the Gwich'in villages that will be significantly impacted by this proposed action.

First, BLM has only allowed a 14-day comment period, and the timing of this period coincides with a phase of the ongoing COVID-19 pandemic in which numerous rural villages are shut down and quarantined, making communication difficult and requiring Tribal governments to focus on pressing public health priorities. The timing has also coincided with a protracted federal election process with substantial complications due to the pandemic, U.S. Postal Service delays, and other factors requiring the attention of the Tribal governments.

Second, BLM has granted the public access to an extremely inadequate description of the proposed action. The two documents made available fail to provide a clear picture of the proposed KIC seismic activities. Moreover, there is no draft NEPA document, no draft ANILCA § 810 evaluation, no draft NHPA-related materials, nor any other materials evaluating the potential adverse impacts of the project on wildlife, habitat, subsistence, historic properties, cultural resources, or other values or resources. The Tribes and members of the public cannot fully understand the proposal or provide useful comments in the absence of such information.

Third, BLM has failed to make it clear what the steps in its process have been or will be and whether or to what extent it is coordinating with other agencies. BLM has indicated it intends to prepare an EA (notwithstanding the need for an EIS, as discussed above), but it has not indicated whether there will be any opportunity for comment on its EA in the future. The written materials identify a few additional permits and reviews that will be conducted, but several major statutory and regulatory requirements are omitted, including but not limited to those discussed above, leaving the public to wonder whether BLM intends to comply with them or not.

Fourth, the seismic program is being unnecessarily rushed. It is inappropriate and irresponsible to ram through a controversial authorization for seismic activity in one of the most sensitive ecosystems in the nation at this time. Given the four pending legal challenges to the Coastal Plain Leasing Program that could invalidate any seismic activity in furtherance of it, the uncertainty surrounding the new NEPA regulations and the many facial legal challenges to those rules, the COVID-19 public health crisis that would complicate remote field operations, and the need to gather baseline data, conduct Tribal consultations, prepare NEPA, ANILCA, and NHPA reviews, allow meaningful public comment opportunities relating to those reviews, obtain a Refuge compatibility determination, and many other factors, it would be far more prudent and efficient to postpone seismic exploration for at least another year.

VI. Incorporation by Reference

As a consequence of the extremely short comment period allowed by BLM, the Tribes did not have adequate time to prepare their comments. To ensure that they are preserving all potential issues and exhausting all administrative remedies, the Tribes hereby incorporate the following materials, including their attachments and appendices, by reference as though fully set forth herein:

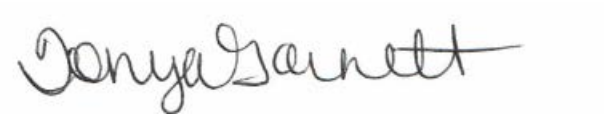
- Comments submitted on behalf of the Gwich'in Steering Committee and other groups;
- Comments submitted on behalf of the Audubon Society and other groups;
- Comments submitted on behalf of the State of Washington and other states involved in litigation challenging the Coastal Plain Leasing Program;
- Comments submitted by Matt Nolan, Ph.D. relating to snow cover and tundra impacts of seismic operations;
- Other comments submitted by or on behalf of other Tribal entities, States, non-governmental organizations, and scientists expressing concerns similar to the Tribes' about the adverse impacts of the KIC seismic program on caribou, migratory birds, subsistence, vegetation, historic properties, cultural resources, and other values and resources of the Coastal Plain and/or the inadequacy of the BLM decision-making process; and

- The documents enclosed and submitted herewith.

VII. Conclusion

For the reasons discussed above and in the Tribes' prior comments and litigation filings relating to the Coastal Plain Leasing Program, oil and gas development on the Coastal Plain of the Arctic Refuge threatens the Tribes' way of life, is incompatible with responsible stewardship of the Sacred Place Where Life Begins, and should not be approved. Seismic exploration and other activities meant to facilitate such oil and gas development are likewise out of place in such a revered place. To the extent BLM intends to allow such activities notwithstanding the Tribes' objections, it must comply with all applicable statutes and regulations, and it must engage the Tribes and the public in a meaningful way to ensure that the agency, Tribes, and the public are fully informed before the final decision is made. At the present time, it does not appear that BLM is on a path for achieving such compliance.

Sincerely yours,



Tonya Garnett
Special Projects Coordinator
Native Village of Venetie Tribal Government

Enclosures:

1. Native Village of Venetie Tribal Government, Complaint, 3:20-cv-00223-SLG (Sept. 9, 2020).

2. Native Village of Venetie Tribal Government, Comments on Draft EIS for Leasing Program (Mar. 13, 2019).

Enclosure 3

Complaint for Declaratory and Injunctive Relief, Native Village of Venetie Tribal Government et al. v. Bernhardt et al., No. 3:20-cv-00223-SLG (D. Alaska).

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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

NATIVE VILLAGE OF VENETIE TRIBAL GOVERNMENT; ARCTIC VILLAGE COUNCIL; and VENETIE VILLAGE COUNCIL, Plaintiffs, v. DAVID L. BERNHARDT, in his official capacity as Secretary of the United States Department of the Interior; UNITED STATES DEPARTMENT OF THE INTERIOR; UNITED STATES BUREAU OF LAND MANAGEMENT; and UNITED STATES FISH AND WILDLIFE SERVICE, Defendants.	Case No. 3:20-cv-00223-JMK **COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF** **Alaska National Interest Lands Conservation Act §§ 303, 304, Pub. L. 96-487, and 16 U.S.C. §§ 3101-3233; National Wildlife Refuge System Administration Act, 16 U.S.C. §§ 668dd-668ee; Tax Cuts and Jobs Act § 20001, Pub. L. 115-97; National Historic Preservation Act, 54 U.S.C. §§ 306108-307108; National Environmental Protection Act, 42 U.S.C. §§ 4321-4370j; Administrative Procedure Act, 5 U.S.C. §§ 701-706**

I. NATURE OF THE CASE

1. Gwich'in people comprise an Indigenous Nation living in villages across the northern United States and Canada. Within Alaska, Gwich'in live in nine communities along or near the migratory route of the Porcupine Caribou Herd.

2. Gwich'in have considered themselves "Caribou People" for millennia. Caribou provide much more than physical sustenance to Gwich'in communities. Caribou

are entwined in Gwich'in stories, songs, worldview, spirituality, and traditions. Caribou are fundamental to their very existence.

3. To Gwich'in, the Coastal Plain of the Arctic National Wildlife Refuge is Iizhik Gwats'an Gwandaii Goodlit, the "Sacred Place Where Life Begins," because it is the place where the Porcupine Caribou Herd migrates each year to calve and raise their young.

4. For decades, Gwich'in have served as leaders in the effort to protect the Coastal Plain from the harmful effects of potential oil and gas drilling.

5. The Coastal Plain is also world-renowned for its extraordinary biological richness. In addition to caribou, migratory birds flock to the Coastal Plain in huge numbers. Many species of mammals, fish, and other wildlife thrive in and around its wild rivers, streams, lakes, tundra, and lagoons.

6. For all these reasons, the Coastal Plain was off-limits to oil and gas development for many decades. That all changed in 2017. Through a rider tucked into tax legislation, Congress authorized an oil and gas leasing program within the most intact and majestic landscape remaining in the United States. Since then, Defendants have conducted hurried and deeply flawed reviews of the program's impacts on subsistence, historic properties, and the environment. These reviews and the decisions flowing from them violate multiple federal laws and regulations.

7. One of the most egregious errors is Defendants' determination that the impacts of allowing large-scale oil and gas development across the entire Coastal Plain would have no significant impact on Neets'ąįį Gwich'in communities of Venetie and

Arctic Village. As a result, Defendants failed to conduct a full analysis of subsistence impacts with respect to these communities, as required by law.

8. Another major error is Defendants' refusal to recognize and take into account the program's adverse effects on the Sacred Place Where Life Begins, an historic property of traditional religious and cultural significance to Plaintiffs, as required by law. Defendants omitted the most important historic property from their review.

9. Similar omissions, erroneous assumptions, and incomplete analyses pervade Defendants' reviews and render their decisions unlawful.

10. Plaintiffs assert claims under the Alaska National Interest Lands Conservation Act ("ANILCA") §§ 303, 304, Pub. L. No. 96-487, 94 Stat. 2371 (1980), 16 U.S.C. §§ 3101-3233, and implementing regulations; National Wildlife Refuge System Administration Act ("Refuge Act"), 16 U.S.C. §§ 668dd–668ee, and implementing regulations; Tax Cuts and Jobs Act of 2017 ("Tax Act") § 20001, Pub. L. No. 115-97, 131 Stat. 2054 (2017); National Historic Preservation Act ("NHPA"), 54 U.S.C. §§ 300101-307108, and implementing regulations; National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321-4370j, and implementing regulations; and the standards for agency decision-making in the Administrative Procedure Act ("APA"). 5 U.S.C. §§ 701-706.

11. Plaintiffs challenge the Record of Decision ("ROD") issued by Defendants on August 17, 2020, approving an oil and gas leasing program ("Leasing Program") on the Coastal Plain of the Arctic National Wildlife Refuge ("Arctic Refuge"), as well as the associated Final Environmental Impact Statement ("EIS") and ANILCA § 810 Final

Evaluation published on September 20, 2019. Plaintiffs also challenge Defendants' implementation of the NHPA § 106 process and the Programmatic Agreement ("PA") that became effective October 4, 2019.

12. Plaintiffs seek declaratory, injunctive, mandamus, vacatur, and other and further relief.

II. JURISDICTION AND VENUE

13. This Court has subject matter jurisdiction over this matter pursuant to 28 U.S.C. § 1331 (federal question), 28 U.S.C. § 1346 (civil action against United States), 28 U.S.C. § 1361 (action to compel mandatory duty), and 28 U.S.C. § 1362 (federal question raised by Tribes).

14. This Court has personal jurisdiction over Defendants and their sovereign immunity is waived pursuant to 5 U.S.C. §§ 701–706 and 28 U.S.C. §§ 1346, 1361 because Defendants are federal agencies, officers, and employees of the United States acting in their official capacities.

15. Venue is proper in this Court pursuant to 28 U.S.C. § 1391 because Plaintiffs reside within the District of Alaska, Defendants maintain offices within the District of Alaska, a substantial part of the events or omissions giving rise to the claims occurred within the District of Alaska, and the Arctic Refuge is situated within the District of Alaska.

16. Judicial review is authorized pursuant to 5 U.S.C. §§ 701–706 because Defendants' actions, findings, conclusions, decisions, and failures to act in connection with their approval and issuance of the Final EIS, ROD, ANILCA § 810 Final

Evaluation, and NHPA § 106 PA are final agency actions that have adversely affected and aggrieved Plaintiffs.

17. Declaratory, injunctive, mandamus, vacatur, and other and further relief are authorized pursuant to 5 U.S.C. §§ 701–706 and 28 U.S.C. §§ 1361, 2201–2202.

III. PARTIES

A. Plaintiffs

18. Plaintiff NATIVE VILLAGE OF VENETIE TRIBAL GOVERNMENT is a federally recognized Indian Tribe,[1] and it is the Tribal governmental entity responsible for managing the 1.8 million acres of land surrounding Arctic Village and Venetie, which they own in fee simple and as tenants in common. Native Village of Venetie Tribal Government engaged in government-to-government consultation with Defendants and submitted extensive comments relating to the Leasing Program. Native Village of Venetie Tribal Government also served as a cooperating agency in Defendants' environmental review and decision-making process, as well as a consulting party in Defendants' NHPA § 106 review for the Leasing Program. Throughout these efforts, Native Village of Venetie Tribal Government consistently maintained that the proposed oil and gas leasing program would cause harm to migratory wildlife that rely on the Coastal Plain of the Arctic Refuge, and that such a program would cause harm to the Tribe and its members.

[1] *See* 85 Fed. Reg. 5,462, 5,467 (Jan. 30, 2020).

19. Plaintiff ARCTIC VILLAGE COUNCIL is a federally recognized Indian Tribe and the Tribal government of the community of Arctic Village.[2] Arctic Village is situated on the southern side of the Arctic Refuge, along the east fork of the Chandalar River and about 100 miles north of Fort Yukon, Alaska. Arctic Village Council engaged in government-to-government consultation with Defendants and submitted extensive comments relating to the Leasing Program. Arctic Village Council also served as a cooperating agency in Defendants' environmental review and decision-making process, as well as a consulting party in Defendants' NHPA § 106 review for the Leasing Program. Throughout these efforts, Arctic Village Council consistently maintained that the proposed oil and gas leasing program would cause harm to the migratory wildlife that rely on the Coastal Plain of the Arctic Refuge, and that such a program would cause harm to the Tribe and its members.

20. Plaintiff VENETIE VILLAGE COUNCIL is a federally recognized Indian Tribe and the Tribal government of the community of Venetie.[3] Venetie is located south of the Arctic Refuge, on the north side of the Chandalar River and about forty-five miles northwest of Fort Yukon, Alaska. Venetie Village Council engaged in government-to-government consultation with Defendants and submitted extensive comments relating to the Leasing Program. Venetie Village Council also served as a cooperating agency in Defendants' environmental review and decision-making process, as well as a consulting

[2] Arctic Village Council is federally recognized as "Arctic Village." *See* 85 Fed. Reg. at 5,466.
[3] Venetie Village Council is federally recognized as "Village of Venetie." *See id*. at 5,467.

party in Defendants' NHPA § 106 review for the Leasing Program. Throughout these efforts, Venetie Village Council consistently maintained that the proposed oil and gas leasing program would cause harm to migratory wildlife that rely on the Coastal Plain of the Arctic Refuge, and that such a program would cause harm to the Tribe and its members.

21. The members of the three Plaintiff Tribes described above are Neets'ąjį Gwich'in and, to a lesser extent, Gwich'yaa and Dihaii Gwich'in. These are subsets of the larger Gwich'in Nation, whose territory extends from the northeastern Interior of Alaska to the Yukon and Northwest Territories in Canada. Historically, Gwich'in people in northeastern Alaska lived a highly nomadic life. They used seasonal camps and semi-permanent settlements, such as Arctic Village and Venetie, for hunting, fishing, and other subsistence activities, and they traded with Inupiat Eskimos on the Arctic coast. Under the stewardship of Plaintiffs and other Tribes over many centuries, the Coastal Plain has remained an intact ecosystem which continues to support vibrant and productive subsistence ways of life beyond the borders of the Coastal Plain.

22. Gwich'in communities have become more settled in recent decades. The Venetie Indian Reservation was established in 1943, and the first school was built in 1959. When Congress enacted the Alaska Native Claims Settlement Act ("ANCSA") in 1971, Arctic Village and Venetie opted for fee title to the 1.8 million acres of land in the former reservation, and they have rejected both municipal government and ANCSA corporation structures. Today, Arctic Village and Venetie each serve as a home base for their residents to maintain their robust traditional culture and subsistence lifeways. They

rely heavily on caribou, birds, and other subsistence resources throughout the surrounding region, including wildlife that breeds, forages, inhabits, and migrates to and from the Coastal Plain of the Arctic Refuge.

23. Gwich'in people view their relationship to their aboriginal homelands and the wild resources found therein more broadly than federal agencies and other Western observers. While the resources that rely on the Coastal Plain certainly serve as a primary source of food, the Tribal members' relationship to the land and wildlife is also critically important for maintaining their Native language and dialects, cultural heritage and identity, community and family cohesion, spiritual and religious beliefs and ceremonies, transmission of knowledge and customs to children, connections with ancestors, intergenerational equity, and a whole host of other aspects of Gwich'in society.

24. The way of life of Plaintiffs' Tribal members and that of their communities depend on the Porcupine Caribou Herd, migratory waterfowl, and other wildlife that rely on the Coastal Plain of the Arctic Refuge. These wild resources are essential for subsistence and for maintaining sharing networks, kinship ties, and other social, cultural, physical, spiritual, and religious aspects of their identity and well-being. Many individual Tribal members testified at one or more of the public hearings relating to the Leasing Program, and they have been personally affected by the Defendants' decision to approve the Leasing Program.

25. With respect to the agency actions, findings, and conclusions challenged in this Complaint, Plaintiffs and their members have standing and they have exhausted administrative remedies.

26. Defendants' inadequate consultation and reviews in violation of ANILCA, the Refuge Act, the Tax Act, NHPA, NEPA, and the standards for agency decision-making in the APA have adversely affected and aggrieved Plaintiffs and their members by interfering with their ability to meaningfully participate in and influence governmental decision-making processes relating to the Leasing Program and denying them a meaningful opportunity to exercise the statutory rights they possess under these statutes and regulatory schemes.

27. Defendants' unlawful decisions approving and issuing the Final EIS, ANILCA § 810 Final Evaluation, and NHPA §106 PA and failing to carry out meaningful and legally sufficient subsistence, historic property, and environmental review processes have adversely affected and aggrieved Plaintiffs and their members by failing to adequately consider impacts and implement protections for subsistence, historic properties, and wildlife and their habitat.

28. Defendants' violations of ANILCA, the Refuge Act, the Tax Act, NHPA, NEPA, and the standards for agency decision-making in the APA have resulted in an unlawful decision in the ROD approving the Leasing Program on the Coastal Plain without adequate protections for Tribal interests, and this unlawful decision has adversely affected and aggrieved Plaintiffs and their members.

B. Defendants

29. Defendant DAVID L. BERNHARDT is sued in his official capacity as Secretary of the United States Department of the Interior ("DOI"). Defendant Bernhardt has responsibility for overseeing the activities and decisions of DOI, the United States

Bureau of Land Management ("BLM"), United States Fish and Wildlife Service ("FWS"), and other DOI sub-agencies.

30. Defendant UNITED STATES DEPARTMENT OF THE INTERIOR is the department of the executive branch of the federal government responsible for overseeing the activities and decisions of BLM, FWS, and other sub-agencies. The mission of DOI is to conserve and manage the Nation's natural resources and cultural heritage for the benefit of the American people, provide scientific and other information about natural resources and natural hazards to address societal challenges and create opportunities for the American people, and honor the Nation's trust responsibilities and special commitments to American Indians, Alaska Natives, and affiliated island communities to help them prosper.

31. Defendant UNITED STATES BUREAU OF LAND MANAGEMENT is a federal agency within DOI entrusted with the administration of the public lands. The mission of BLM is to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

32. Defendant UNITED STATES FISH AND WILDLIFE SERVICE is a federal agency entrusted with managing the National Wildlife Refuge System, a diverse network of lands and waters dedicated to conserving America's rich fish and wildlife heritage, including the Arctic Refuge. The mission of FWS is to assist in the development and application of an environmental stewardship ethic for our society, based on ecological principles, scientific knowledge of fish and wildlife, and a sense of moral responsibility; guide the conservation, development, and management of the Nation's fish

and wildlife resources; and administer a national program to provide the public opportunities to understand, appreciate, and wisely use fish and wildlife resources.

IV. FACTS

A. Gwich'in People and the Coastal Plain of the Arctic National Wildlife Refuge

33. The Arctic Refuge is a breathtaking, resplendent landscape—one of very few remaining in the world—and it lies at the heart of the traditional way of life for the Gwich'in people.

34. The Coastal Plain region of the Arctic Refuge stretches southward from barrier islands in the Beaufort Sea to the foothills of the Brooks Range. It is an area of rolling hills, small lakes, and braided rivers dominated by tundra vegetation.

35. The Coastal Plain serves as the calving grounds for the Porcupine Caribou Herd, which migrates there in the summer to give birth, raise their young, seek relief from insects, avoid predators, and forage on high quality food.

36. Gwich'in people enjoy a close and lasting relationship with these caribou, which pass through and near Gwich'in lands and communities on their annual migration. Caribou are the main source of subsistence harvests as well as a spiritual and cultural treasure for the nine Gwich'in communities along or near the migration route in Alaska: Arctic Village, Beaver, Birch Creek, Canyon Village, Chalkyitsik, Circle, Eagle Village, Fort Yukon, and Venetie.

37. Gwich'in have maintained their culture, identity, and integrity as traditional Indigenous inhabitants of the area, with sacred relationships to the land and caribou, for thousands of years. Their culture relies upon and honors the caribou and the ancestral

homelands that have provided for them. For them, the Coastal Plain is Iizhik Gwats'an Gwandaii Goodlit, the Sacred Place Where Life Begins.

38. The Sacred Place Where Life Begins is an historic property to which Plaintiffs ascribe traditional religious and cultural significance. Plaintiffs repeatedly provided information to BLM that the Sacred Place Where Life Begins is an historic property of traditional religious and cultural significance, a traditional cultural property ("TCP"), and a cultural landscape that must be taken into account in the NHPA § 106 process.

39. In addition to caribou, the Coastal Plain is also home to many migratory bird species that are important for sustaining Gwich'in people's traditional subsistence culture and way of life. A profusion of vegetation and insect life on the Coastal Plain in the spring, summer, and fall attracts tens of thousands of geese and other birds each year as part of their annual migrations across six continents. Tribal members hunt these migratory geese and gather their eggs, and both activities are important for social cohesion and for the transmission of language and cultural values from one generation to the next.

B. Procedural History

40. From 2018 to 2019, Defendants conducted an environmental review pursuant to NEPA for the Leasing Program. Defendants also conducted ANILCA § 810 and NHPA § 106 reviews concurrently with the NEPA review.

41. Defendant BLM served as the lead agency in preparing the EIS and conducting the ANILCA § 810 and NHPA § 106 reviews, under the supervision of

Defendant DOI. Cooperating agencies in BLM's NEPA review included FWS, the United States Environmental Protection Agency, State of Alaska, North Slope Borough, Native Village of Kaktovik, and Plaintiffs.

42. Defendants published a Notice of Intent to prepare an EIS for the Leasing Program on April 20, 2018, and they carried out a formal scoping period from May through July 2018. 83 Fed. Reg. 17,562 (Apr. 20, 2018). The Notice of Availability of the Draft EIS was published on December 28, 2018, and public comments were accepted until March 13, 2019. 83 Fed. Reg. 67,337 (Dec. 28, 2018). In February 2019, Defendants held public meetings at various locations in Alaska and Washington, DC.

43. Plaintiffs participated extensively in the agency review processes, including without limitation scoping, Draft EIS review, ANILCA § 810 evaluation, and the NHPA § 106 process. Plaintiffs' leaders and members gave testimony at public meetings, submitted written comments, participated in government-to-government consultations, and served as cooperating agencies and consulting parties.

44. Defendants published the Final EIS and ANILCA § 810 Final Evaluation on September 20, 2019, 84 Fed. Reg. 50,472 (Sept. 25, 2019), executed the NHPA § 106 PA, which became effective on October 4, 2019, and issued the ROD approving the Leasing Program on August 17, 2020. 85 Fed. Reg. 51,754 (Aug. 21, 2020).

45. On a separate track, in the spring of 2018, SAExploration, Inc., submitted a detailed application to Defendants seeking authorization to conduct large-scale and intensive pre-leasing seismic survey activities throughout the Coastal Plain. In the summer of 2018, Defendants initiated a separate NEPA review for these activities.

Although the results of pre-leasing seismic surveying are intended to inform the Leasing Program, Defendants excluded these proposed activities and analysis of their impacts from the environmental review for the Leasing Program. When the Final EIS for the Leasing Program was published in September 2019, the pre-leasing seismic NEPA review process remained in the early stages of scoping and had been "paused," according to Defendants' website. As such, the final information and analyses from the pre-leasing seismic NEPA review were not available and could not be incorporated into or relied on in the Final EIS.

C. ANILCA § 810 Process

46. Defendants acknowledged the "importance of the program area to caribou—particularly the [Porcupine Caribou Herd] and [Central Arctic Herd]"—and that twenty-two Alaskan communities engage in subsistence use of these caribou. ANILCA § 810 Final Evaluation, FEIS appx. E, at E-3.

47. Defendants conducted a Tier 1 evaluation under ANILCA § 810 with respect to only four communities: the two Neets'ąįį Gwich'in communities of Arctic Village and Venetie and the two Inupiat communities of Kaktovik and Nuiqsut.

48. Defendants thus included only two of the nine Gwich'in communities in Alaska in its ANILCA § 810 evaluation.

49. Defendants' rationale for limiting the Tier 1 evaluation to only four communities was that these were the "closest to the program area and have subsistence uses in or near the program area or rely heavily on resources that use the program area." *Id*.

50. Defendants thus applied an erroneously high threshold at the outset of the Tier 1 evaluation based on close proximity and "heav[y]" subsistence use.

51. On the basis of that threshold, Defendants excluded seven Gwich'in communities despite their acknowledgment that those communities also engaged in subsistence use of the caribou that would be affected by the Leasing Program.

52. Defendants' Tier 1 evaluation is flawed and inadequate in many ways.

53. Defendants failed to properly evaluate the effect of the proposed Leasing Program on subsistence uses and needs for many reasons, including without limitation Defendants': (a) utilization of an overly narrow definition of subsistence; (b) imposition of unduly restrictive thresholds, such as whether a resource comprised the "majority" of wild foods consumed by residents; (c) exclusion of culturally important resources, such as migratory birds, and culturally important practices, such as bartering and sharing; (d) flawed and inadequate analysis of caribou impacts, including without limitation major data gaps, erroneous facts and reasoning concerning displacement distance and calving habitat, and overreliance on mitigation measures not shown to be effective; (e) failure to adequately identify which lands are needed for subsistence purposes; (f) flawed and inadequate analysis of cumulative impacts, including without limitation (i) lack of a meaningful analysis of climate change; (ii) overreliance on unproven mitigation; (iii) failure to meaningfully evaluate the impacts of oil and gas activities on caribou and migratory bird abundance; (iv) failure to meaningfully evaluate the impacts of oil and gas activities on caribou and migratory bird availability and access for subsistence communities; (iv) failure to meaningfully evaluate the impacts of transportation on

caribou and migratory bird abundance; and (v) failure to meaningfully evaluate the impacts of transportation on caribou availability and access for subsistence communities; and (g) failure to meaningfully consider and take into account the comments and traditional knowledge provided by Plaintiffs, other Tribes, and their members.

54. Defendants failed to adequately consider the availability of other lands for the Leasing Program that would have lesser impacts on subsistence.

55. Defendants failed to adequately consider other alternatives to the Leasing Program that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes, including without limitation: (a) phased-leasing of only 400,000 acres of the highest hydrocarbon areas; (b) allowing less than 2,000 acres of surface development; (c) prohibiting seismic exploration on areas of the Coastal Plain not offered for lease; (d) not offering certain lands for leasing, such as caribou calving and post-calving areas; and (e) more protective lease stipulations and required operating procedures to protect caribou, migratory birds, subsistence, and other Coastal Plain resources, uses, and values.

56. Defendants failed to conduct a meaningful analysis of abundance, availability, and access for all subsistence communities and all subsistence resources.

57. Defendants applied an overly high threshold to determine whether to proceed with a Tier 2 analysis.

58. With respect to Arctic Village and Venetie, as well as Nuiqsut, Defendants found that the Leasing Program would not significantly restrict subsistence uses and, as

such, did not conduct Tier 2 analyses, hold any formal subsistence hearings, or make any formal findings pursuant to ANILCA § 810(a)(3) in connection with these communities.

59. With respect to Kaktovik, Defendants found that the Leasing Program may significantly restrict subsistence uses and thus conducted a Tier 2 analysis relating to Kaktovik. Defendants held a formal subsistence hearing in Kaktovik on February 5, 2019, and included formal findings relating to Kaktovik pursuant to ANILCA § 810(a)(3) in their Final Evaluation.

60. Defendants' Tier 2 evaluation and determinations are flawed and inadequate in many ways.

61. Defendants' determination that the Leasing Program's significant restriction of subsistence use is necessary, consistent with sound management principles for the utilization of public lands, is erroneous for many reasons, including without limitation: (a) Defendants' improper exclusion of numerous subsistence communities, including without limitation Arctic Village, Venetie, and the seven other Gwich'in subsistence communities that Defendants have acknowledged are reliant on the caribou that will be affected by the Leasing Program; (b) the many flaws and inadequacies of the Tier 1 evaluation described above; (c) Defendants' overreliance on unproven mitigation; (d) Defendants' failure to adequately consider the availability of other lands with lesser impacts on subsistence; (e) Defendants' failure to consider alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes, such as the examples described above; and (f) Defendants' erroneous interpretations and applications of the Tax Act described below.

62. Defendants' determination that the Leasing Program will involve the minimal amount of public lands necessary to accomplish its purposes is erroneous for many reasons, including without limitation: (a) Defendants' improper exclusion of numerous subsistence communities, including without limitation Arctic Village, Venetie, and the seven other Gwich'in subsistence communities that Defendants have acknowledged are reliant on the caribou that will be affected by the Leasing Program; (b) the many flaws and inadequacies of the Tier 1 evaluation described above; (c) Defendants' overreliance on unproven mitigation; (d) Defendants' failure to adequately consider the availability of other lands with lesser impacts on subsistence; (e) Defendants' failure to consider alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes, such as the examples described above; and (f) Defendants' erroneous interpretations and applications of the Tax Act described below.

63. Defendants' determination that reasonable steps will be taken to minimize adverse effects upon subsistence uses and resources resulting from the Leasing Program is erroneous for many reasons, including without limitation: (a) Defendants' improper exclusion of numerous subsistence communities, including without limitation Arctic Village, Venetie, and the seven other Gwich'in subsistence communities that Defendants have acknowledged are reliant on the caribou that will be affected by the Leasing Program; (b) the many flaws and inadequacies of the Tier 1 evaluation described above; (c) Defendants' overreliance on unproven mitigation; (d) Defendants' failure to adequately consider the availability of other lands with lesser impacts on subsistence; (e)

Defendants' failure to consider alternatives that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes, such as the examples described above; and (f) Defendants' erroneous interpretations and applications of the Tax Act described below.

64. The problems with Defendants' ANILCA § 810 evaluation are compounded by their reliance on the information in the Final EIS. Defendants' faulty NEPA review (described below) undermined the ANILCA § 810 evaluation in numerous ways, including without limitation Defendants': (a) erroneous interpretations and applications of the Tax Act; (b) a development scenario based on erroneous assumptions later rejected by Defendants; (c) exclusion of pre-leasing seismic surveying activities; (d) utilization of low oil production estimates and associated development levels; (e) consideration of only development-maximizing action alternatives; (f) failure to conduct or take into account NHPA § 106 consultation concerning broad historic properties; (g) failure to take into account comments and traditional knowledge provided by Tribes and their members; and (h) deeply flawed and inadequate analyses of direct and indirect effects, cumulative impacts, and mitigation measures.

D. NHPA § 106 Process

65. During meetings and through comments, Plaintiffs repeatedly urged Defendants to initiate the NHPA § 106 process early enough in the development of the Leasing Program that it would inform the development, evaluation, and selection of Leasing Program, or development scenario, alternatives. Defendants failed to do so.

66. Defendants published their Notice of Intent to prepare an EIS in April 2018. During scoping thereafter, Defendants held a three-day workshop to develop and evaluate Leasing Program alternatives in July 2018. A preliminary Draft EIS containing the alternatives that had already been selected for evaluation was shared with cooperating agencies in early August 2018.

67. By this time, Defendants had not held a single NHPA § 106 consultation or meeting with Plaintiffs and all consulting parties. The first NHPA § 106 meeting took place in late October 2018. The purpose of the October 2018 meeting was simply to inform consulting parties of Defendants' timeline for developing a PA; nothing substantive was discussed.

68. When the Draft EIS was released to the public in late December 2018, Defendants had not held a single NHPA § 106 consultation with Plaintiffs. On Plaintiffs' information and belief, Defendants had not engaged in substantive discussions with any consulting parties concerning the NHPA § 106 process, historic properties within the Leasing Program's area of potential effects ("APE"), potential adverse effects of the Leasing Program on historic properties, possible alterations or modifications to avoid, minimize, or mitigate those effects, the PA, or other aspects of the NHPA § 106 process.

69. Defendants' failure to initiate the NHPA § 106 process early enough meant that neither the process nor the historic properties it is meant to protect informed Defendants' development, evaluation, and selection of the alternatives that were evaluated in the NEPA process or the final alternative that was selected by Defendants in the ROD.

70. None of the action alternatives evaluated by Defendants, including the alternative selected in the ROD, considered alternatives or modifications to the Leasing Program what would avoid, minimize, or mitigate adverse effects to historic properties, including cultural landscapes and TCPs, specifically, the Sacred Place Where Life Begins. Instead, all of the action alternatives evaluated by Defendants, including the alternative selected in the ROD, maximize industrial oil and gas development without taking into account the Leasing Program's effects on historic properties, including without limitation the following. Each action alternative: (a) allows seismic surveying to occur throughout the entire program area, including areas closed to leasing; (b) allows leasing in the majority or entirety of the program area; (c) allows for surface development on at least 2,000 acres; (d) fails to exclude key lands from leasing, such as caribou calving and post-calving areas; and (e) is subject to mitigation measures which have not been developed in consultation with Plaintiffs and other consulting parties in the NHPA § 106 process, analyzed or shown to be effective, and are broadly subject to waivers, exemptions, and modifications.

71. The belated NHPA § 106 "process" undertaken by Defendants was woefully and legally deficient in numerous ways. The following are a few examples.

72. Defendants failed to engage in adequate and meaningful NHPA § 106 consultations. The interactions Defendants had with Plaintiffs were *pro forma* and failed to take their concerns, comments, and traditional knowledge about historic properties and potential adverse effects into account in any meaningful way. On information and belief, Defendants' interactions with other consulting parties were similarly inadequate.

73. For example, Defendants planned to conduct interviews in Arctic Village and Venetie in December 2018 and January 2019 as part of their effort to identify historic properties and evaluate their eligibility for inclusion in the National Register of Historic Places ("National Register"). These consultations were cancelled. Defendants eventually conducted interviews in Venetie and Fairbanks in April 2019, but Defendants never conducted interviews in Arctic Village. Defendants never engaged in consultation with Plaintiffs to identify and evaluate the National Register-eligibility of historic properties potentially affected by the Leasing Program. Instead, Plaintiffs were forced to conduct interviews on their own and provide the transcripts to Defendants along with information about the National Register-eligibility of such properties. Defendants thus failed to make a reasonable and good faith effort to identify historic properties potentially affected by the Leasing Program, to fulfill their statutory obligation to comply with NHPA § 106 requirements, and to bear full legal and financial responsibility for such compliance. *See* 36 C.F.R. §§ 800.2(a), 800.4(b)(1).

74. Defendants never engaged in NHPA § 106 consultations with Plaintiffs to apply the adverse effects criteria, *see id*. § 800.5(a), and develop alternatives and modifications to the Leasing Program to avoid, minimize, or mitigate adverse effects. *Id*. § 800.6(a). On information and belief, Defendants failed to meaningfully and adequately consult with other consulting parties as well.

75. In March 2019, Defendants provided Plaintiffs and other consulting parties with a draft PA and held a meeting the next day to discuss it, despite none of the consulting parties, including Plaintiffs, having had sufficient time to review it. In June

2019, Defendants provided Plaintiffs and other consulting parties with a second draft of the PA. In July 2019, Defendants held a meeting with Plaintiffs and other consulting parties, but instead of discussing the second draft PA, Defendants merely indicated they would review the consulting parties' written comments on the second draft and declined to engage in substantive discussions. In sum, Defendants accepted written comments from Plaintiffs and, on information and belief, other consulting parties concerning the PA but never engaged in meaningful consultations with them about it.

76. As a result of Defendants' superficial approach to consultation, they failed to give Plaintiffs special consideration, recognizing their special expertise in identifying and evaluating historic properties and adverse effects, and the government-to-government relationship, as required in the NHPA § 106 process. On information and belief, Defendants likewise failed to give special consideration to other Tribal consulting parties as well.

77. Defendants failed to adequately consult with Plaintiffs at specific steps in the NHPA § 106 process, including but not limited to: (a) information-gathering; (b) identification and evaluation of the National Register-eligibility of historic properties potentially affected by the Leasing Program; (c) assessment of the Leasing Program's effects on historic properties; (d) resolution of adverse effects by developing and evaluating alternatives and modifications to the Leasing program that avoid, minimize, and mitigate adverse effects; (e) and development and implementation of the PA. On information and belief, Defendants' failures extend to other consulting parties as well.

78. Defendants also improperly limited the scope of the NHPA § 106 process to small, localized historic properties and refused to consider larger historic properties, such as TCPs and cultural landscapes, including the Sacred Place Where Life Begins. Plaintiffs emphasized the deep traditional religious and cultural significance to them of the Sacred Place Where Life Begins, submitted extensive documentation of its significance, integrity, and contributing resources, and repeatedly urged Defendants to take into account this historic property in their NHPA § 106 evaluation. Defendants declined to do so, deferring identification and evaluation, assessment of effects, and resolution of adverse effects through the development of avoidance, minimization, and mitigation plans until later stages of oil and gas development, *i.e.*, post-leasing, when applications for permits to drill ("APD") are submitted.

79. Defendants took the position that they were not required to carry out these steps prior to the APD stage because approval of the Leasing Program would not authorize ground-disturbing activities. This position is based on unlawfully narrow interpretations of Defendants' NHPA § 106 obligations and the adverse effects federal agencies must consider. Adverse effects that must be considered include without limitation direct, indirect, reasonably foreseeable, and cumulative effects, as well as effects not involving physical alterations. *See* 36 C.F.R. § 800.5(a)(1).

80. Defendants' position is also erroneous because the scope of subsequent reviews will be limited to the specific sub-areas being permitted. Only at the leasing stage is it possible to consider the adverse effects of the entire Leasing Program on landscape-level historic properties, such as the Sacred Place Where Life Begins, as well

as avoidance, minimization, and mitigation measures for the entire Leasing Program that reduce such effects.

81. As a result of their unlawfully narrow scope, Defendants failed to properly identify and evaluate the National Register-eligibility of landscape-level historic properties, including the Sacred Place Where Life Begins, failed to assess the effects of the Leasing Program on such properties, and failed to develop and consider alternatives or modifications to the Leasing Program that would avoid, minimize, or mitigate such adverse effects.

82. Defendants also failed to engage the public in the NHPA § 106 process. Defendants never provided the public with information about the undertaking and its effects on historic properties. Further, Defendants never provided the public with notice or an opportunity to comment on the NHPA § 106 process, including without limitation key steps such as the identification and evaluation of historic properties, assessment of effects, resolution of adverse effects through the development and evaluation of alternatives and modifications to the Leasing Program that avoid, minimize, and mitigate adverse effects, and development and implementation of the PA.

83. Additionally, the NHPA § 106 process was not completed before the issuance of the Draft EIS or by the end of the public comment period for the NEPA review. As a result, during the NEPA review process, the public was not informed about and did not have a meaningful opportunity to comment on numerous issues relating to the NHPA § 106 process, including but not limited to key steps such as the identification and evaluation of historic properties, assessment of effects, resolution of adverse effects

through the development and evaluation of alternatives and modifications to the Leasing Program that avoid, minimize, and mitigate adverse effects, and development and implementation of the PA.

84. The Final PA was signed by BLM and the Alaska State Historic Preservation Officer ("SHPO") on September 20 and 23, 2019, respectively. The Notice of Availability for the Final EIS was published a few days later on September 25, 2019. The Final PA was then signed by FWS on September 30, 2019. The Final PA when into effect when it was signed by the Advisory Council on Historic Preservation ("ACHP") on October 4, 2019.

85. Despite the close timing of the finalization of these NEPA and NHPA § 106 documents, the PA was not included as an appendix to the Final EIS or otherwise made available to the public. Defendants did not inform Plaintiffs that the Final PA was executed until March 11, 2020.

E. NEPA REVIEW PROCESS

86. The reasonably foreseeable development ("RFD") scenario serves as the basis for the entire Leasing Program EIS, including without limitation its action alternatives and its evaluation of direct and indirect impacts, cumulative impacts, and mitigation measures. The RFD and the Leasing Program EIS are fundamentally flawed in numerous ways, including without limitation the following.

87. Defendants relied on unduly low oil production estimates ranging from about 2.4 billion barrels of oil ("BBO") for Alternatives D1 and D2 to roughly 2.7 BBO for Alternative C and 3.0 BBO for Alternative B. Defendants have erroneously

characterized these oil production estimates as "optimistic high-production" levels used to "minimize the chance that the resultant impact analysis will understate potential impacts." Final EIS, at B-3. Truly high-end estimates, however, would be approximately 10.0 BBO or greater, and the corresponding extent of oil and gas facilities and operations evaluated in the action alternatives would be approximately triple what is described in the Final EIS. Defendants' use of unduly low oil production estimates resulted in an understatement of impacts in the Final EIS.

88. Defendants improperly excluded pre-leasing seismic surveying activities from the NEPA review for the Leasing Program, rather than considering these closely interrelated activities as part of the same NEPA review process. As a result, Defendants failed to acknowledge and properly evaluate the combined impacts of these activities, and this led to an understatement of impacts in the Final EIS.

89. None of the action alternatives in the Final EIS maximize protection for subsistence, wildlife, habitat, ecosystems, historic properties, cultural landscapes, TCPs, and/or public health. Instead, all of the action alternatives in the Final EIS maximize industrial oil and gas development in multiple ways, including but not limited to the following. Each action alternative: (a) allows seismic surveying to occur throughout the entire program area, including areas closed to leasing; (b) allows leasing in the majority or entirety of the program area; (c) allows for surface development on at least 2,000 acres; (d) fails to exclude key lands from leasing, such as caribou calving and post-calving areas; and (e) is subject to mitigation measures which have not been analyzed or shown to be effective and are broadly subject to waivers, exemptions, and modifications.

90. Due to the flawed ANILCA § 810 process described above, the action alternatives in the Final EIS reflect inadequate Tier 1 analyses for too few subsistence communities and do not reflect any Tier 2 formal subsistence hearings or findings relating to Arctic Village, Venetie, or any other Gwich'in subsistence community. As a consequence, Defendants failed to adequately consider which areas not to offer for leasing to reduce impacts on subsistence, and the alternatives do not include sufficient features designed to reduce impacts on subsistence. Similarly, due to the delayed, deferred, and inadequate NHPA § 106 process described above, the action alternatives in the Final EIS do not reflect the required consultations and evaluations with respect to historic properties, including cultural landscapes and TCPs, and do not include features designed to reduce adverse effects on them.

91. The analyses of direct and indirect effects, cumulative impacts, and mitigation measures in the Final EIS are flawed and inadequate in numerous ways, including without limitation the following:

a. Subsistence, Sociocultural Systems, and Environmental Justice. With respect to subsistence, sociocultural systems, and environmental justice, the flaws and inadequacies in the Final EIS include without limitation: (i) inadequate baseline data and other data gaps; (ii) erroneous assumptions; (iii) reliance on unduly low oil production estimates and associated development levels; (iv) reliance on erroneous interpretations of the Tax Act; (v) failure to analyze the impacts of pre-leasing seismic activities; (vi) reliance on a flawed and inadequate ANILCA § 810 process; (vii) reliance on a deferred, delayed, and inadequate NHPA § 106 process; (viii) inadequate

demographic information, harvest data, and subsistence use maps for Arctic Village, Venetie, and other communities; (ix) excessive focus on overall quantity of food consumption and harvest with inadequate attention to culturally important subsistence practices, such as egg-gathering, and inadequate attention to lower quantity but essential subsistence activities in time periods and locations with limited resources; (x) inadequate attention to the timing of harvesting; (xi) erroneous assumption that Kaktovik and Nuiqsut are the only communities that could be precluded from subsistence use in the program area; (xii) inadequate analysis of seismic activities and water withdrawals on subsistence resources; (xiii) reliance on other flawed and inadequate analyses in the Final EIS, such as those relating to caribou, waterfowl, soils, and vegetation (described below); (xiv) overly generalized and non-quantified analysis; (xv) failure to take into account traditional knowledge; (xvi) failure to meaningfully address climate change; (xvii) cursory and inadequate cumulative impact analysis; (xviii) failure to analyze the efficacy of reclamation and other mitigation measures; (xix) and overall understatement of impacts.

b. Public Health. With respect to public health, the flaws and inadequacies in the Final EIS include without limitation: (i) inadequate baseline data and other data gaps; (ii) erroneous assumptions; (iii) reliance on unduly low oil production estimates and associated development levels; (iv) reliance on erroneous interpretations of the Tax Act; (v) failure to analyze the impacts of pre-leasing seismic activities; (vi) inadequate analyses of public health impacts on Arctic Village, Venetie, and other communities; (vii) deferral of a Health Impact Analysis and other evaluations until later

stages of oil and gas development; (viii) reliance on an inadequate ANILCA § 810 process; (ix) inadequate and inaccurate data regarding subsistence resources, subsistence activities, and wild food consumption; (x) reliance on other flawed and inadequate analyses in the Final EIS, such as those relating to subsistence, sociocultural systems, environmental justice, caribou, and waterfowl (described above and below); (xi) failure to take into account traditional knowledge; (xii) failure to meaningfully address climate change; (xiii) cursory and inadequate cumulative impact analysis that excludes Arctic Village and Venetie and other communities; (xiv) failure to analyze the efficacy of mitigation measures; and (xv) overall understatement of impacts.

c. Cultural Resources. With respect to cultural resources, the flaws and inadequacies in the Final EIS include without limitation: (i) inadequate baseline data and other data gaps; (ii) erroneous assumptions; (iii) reliance on unduly low oil production estimates and associated development levels; (iv) reliance on erroneous interpretations of the Tax Act; (v) failure to analyze the impacts of pre-leasing seismic activities; (vi) failure to follow guidelines concerning ethnographic studies; (vii) reliance on a delayed, deferred, and inadequate NHPA § 106 process; (viii) reliance on an inadequate ANILCA § 810 process; (ix) failure to consider psychosocial and other impacts of the Leasing Program approval decision itself; (x) failure to take into account traditional knowledge; (xi) failure to meaningfully address climate change; (xii) cursory and inadequate cumulative impact analysis that fails to address colonialism, trauma, and other historical impacts; (xiii) failure to analyze the efficacy of mitigation measures; and (xiv) overall understatement of impacts.

d. Caribou. With respect to caribou, the flaws and inadequacies in the Final EIS include without limitation: (i) inadequate baseline data and other data gaps; (ii) erroneous assumptions; (iii) reliance on unduly low oil production estimates and associated development levels; (iv) reliance on erroneous interpretations of the Tax Act; (v) failure to analyze the impacts of pre-leasing seismic activities; (vi) unreasonable 40% threshold for important calving habitat; (vii) inadequate analysis of forage habitat and vegetation types; (viii) failure to explain how acreages affected by development are significant for caribou; (ix) failure to adequately analyze impacts on post-calving grounds; (x) improper assumption that the Porcupine Caribou Herd will react in a manner similar to other herds and excessive reliance on data from other herds; (xi) failure to discuss general decline in caribou herds across the Arctic; (xii) inadequate analysis of seismic activities and water withdrawals; (xiii) overly generalized and non-quantified analysis; (xiv) failure to take into account traditional knowledge; (xv) failure to meaningfully address climate change; (xvi) cursory and inadequate cumulative impact analysis; (xvii) failure to analyze the efficacy of reclamation and other mitigation measures; and (xviii) overall understatement of impacts.

e. Migratory Waterfowl. With respect to migratory waterfowl, the flaws and inadequacies in the Final EIS include without limitation: (i) inadequate baseline data and other data gaps; (ii) erroneous assumptions; (iii) reliance on unduly low oil production estimates and associated development levels; (iv) reliance on erroneous interpretations of the Tax Act; (v) failure to analyze the impacts of pre-leasing seismic activities; (vi) inadequate analysis of seismic activities and water withdrawals; (vii)

overly generalized and non-quantified analysis; (viii) failure to take into account traditional knowledge; (ix) failure to meaningfully address climate change; (x) cursory and inadequate cumulative impact analysis; (xi) failure to analyze the efficacy of reclamation and other mitigation measures; and (xii) overall understatement of impacts.

f. Vegetation, Tundra, and Wetlands. With respect to vegetation, tundra, and wetlands, the flaws and inadequacies in the Final EIS include without limitation: (i) inadequate baseline data and other data gaps; (ii) erroneous assumptions; (iii) reliance on unduly low oil production estimates and associated development levels; (iv) reliance on erroneous interpretations of the Tax Act; (v) failure to analyze the impacts of pre-leasing seismic activities; (vi) lack of meaningful analysis of habitat value of vegetation, tundra, and wetlands and the impacts of their degradation on caribou, waterfowl, and other wildlife; (vii) deferral of meaningful analysis until later stages of oil and gas development; (viii) overreliance on non-comparable data from the Prudhoe Bay region and other areas; (ix) inadequate analysis of seismic activities and water withdrawals; (x) overly generalized and non-quantified analysis; (xi) limitation of scope of impacts to the program area; (xii) failure to take into account traditional knowledge; (xiii) failure to meaningfully address climate change; (xiv) cursory and inadequate cumulative impact analysis; (xv) failure to analyze the efficacy of reclamation and other mitigation measures; and (xvi) overall understatement of impacts.

g. Soils, Permafrost, Sand, and Gravel. With respect to soils, permafrost, sand, and gravel, the flaws and inadequacies in the Final EIS include without limitation: (i) inadequate baseline data and other data gaps; (ii) erroneous assumptions;

(iii) reliance on unduly low oil production estimates and associated development levels; (iv) reliance on erroneous interpretations of the Tax Act; (v) failure to analyze the impacts of pre-leasing seismic activities; (vi) deferred consideration of gravel supply plans, reclamation plans, and site-specific analysis based on them until later stages of oil and gas development; (vii) inadequate analysis of seismic activities and water withdrawals; (viii) inadequate evaluation of climate change; (ix) failure to account for unique characteristics of the Coastal Plain; (x) overly generalized and non-quantified analysis; (xi) limitation of scope of impacts to the program area; (xii) failure to take into account traditional knowledge; (xiii) failure to meaningfully address climate change; (xiv) cursory and inadequate cumulative impact analysis; (xv) failure to analyze the efficacy of reclamation and other mitigation measures; and (xvi) overall understatement of impacts.

92. In an effort to address the many flaws, inadequacies, and gaps in the Final EIS, Defendants improperly relied on, purported to tier to, and/or attempted to incorporate by reference, with little or no accompanying summary or explanation, numerous other documents, including but not limited to non-NEPA documents, non-federal documents, future or incomplete NEPA reviews, and NEPA reviews concerning unrelated projects and activities.

F. FINAL DECISION APPROVING THE LEASING PROGRAM

93. In the ROD, Defendants have selected and approved Alternative B, which allows oil and gas development across virtually the entire Coastal Plain and is the most

damaging and destructive of the action alternatives presented in the Final EIS for the Leasing Program.

94. Defendants' rationale for this decision is that including the entire Coastal Plain in the Leasing Program will ensure that it is making available the highest hydrocarbon potential areas for lease and maximizing flexibility to ensure that these areas will be developed. Defendants also contend there is too much uncertainty for them to reasonably foresee which areas have the highest potential until after exploration drilling occurs.

95. Defendants' assertions appear inconsistent with the maps in the Final EIS identifying specific areas of "high," "medium," and "low" hydrocarbon potential. *See* FEIS, appx. A, maps 3-6 to 3-9 and 3-59. The Final EIS also discusses areas with hydrocarbon potential, including their acreage, oil and gas recovery potential, and other characteristics in Appendix B in connection with the RFD scenario and in various other places in the Final EIS text and associated tables and figures. *See, e.g.*, FEIS, at ES-4; 3-50 to 3-51, tbls. 3-11, 3-12, 3-13, and 3-14; and appx. B, at B-3 to B-9, tbls. B-1, B-2, and map B-1. Defendants presumably have access to additional information concerning the oil and gas resources of the Coastal Plain in the Administrative Record, through the studies required under ANILCA, and through ongoing interactions with the oil and gas industry.

96. All of the lease stipulations and required operating procedures that Defendants rely on to support their claims that they are adequately protecting subsistence,

wildlife, habitat, ecosystems, historic properties, cultural resources, and public health are unproven and subject to waivers, exceptions, and modifications.

97. Defendants have failed to include meaningful protections for subsistence, wildlife, habitat, ecosystems, historic properties, cultural resources, and public health.

98. Defendants have failed to make a determination that the Leasing Program is a compatible use of the Arctic Refuge or that the Leasing Program fulfills the purposes of the Refuge. Instead, Defendants merely indicate that they took the other Refuge purposes into account and that there will be some adverse impacts on those purposes.

99. The RFD and EIS were developed based on erroneous and unlawful interpretations of the Tax Act's 2,000-acre provision, including without limitation the understanding that this provision imposes a minimum acreage requirement (*i.e.*, prohibits any action alternative that provides for surface development covering less than 2,000 acres) and that it applies on a rolling rather than cumulative basis (*i.e.*, allows for multiple successive 2,000-acre areas of surface development).

100. In the ROD, Defendants abandoned these interpretations and set forth several new legal interpretations of the Tax Act, which are likewise erroneous and unlawful, including without limitation the following: (a) the "up to 2,000 surface acres" language is not an upper limit on a range of surface acres that Defendants may allow but part of a mandate that they must authorize production and support facilities covering the entire 2,000 surface acres; (b) facilities counting toward the 2,000 acres must be both "production" *and* "support facilities"; (c) other facilities assumed to count toward the 2,000 acres in the RFD and EIS, such as airstrips, roads, pads, gravel pits and stockpiles,

and barge landing and storage facilities, may or may not be counted toward the 2,000 acres by future decision-makers; and (d) rights-of-way and easements are not subject to the 2,000-acre limitation.

101. The ROD asserts that Defendants' last-minute changes in interpretation do not affect the validity of the EIS because the assumptions underlying its analysis of environmental impacts were conservative and designed to overstate the impacts.

102. The ROD does not acknowledge the potential that, because there are now many facilities ineligible to be counted toward the 2,000 acres and many others that potentially will not be counted toward the 2,000 acres by future decision-makers, the acreage associated with surface development could far exceed 2,000 acres and, as a result, the EIS may actually understate environmental impacts or otherwise inaccurately characterize impacts.

103. The potential for expansive surface impacts beyond the 2,000 acres assumed in the EIS is compounded by Defendants' erroneous interpretations that they are subject to stringent mandates and have little or no discretion with respect to the 2,000 acres of surface development and the authorization of rights-of-way and easements for exploration, development, production, and transportation facilities related to the Leasing Program.

V. STATUTORY FRAMEWORK

A. Alaska National Interest Lands Conservation Act

104. The Coastal Plain and surrounding areas were federally protected in 1960 through an order issued by the Secretary of the Interior. Pub. Land Order 2214 (Dec. 6,

1960), 25 Fed. Reg. 12,598 (Dec. 8, 1960). This Order established the Arctic National Wildlife Range "for the purpose of preserving unique wildlife, wilderness and recreational values."

105. Congress formally renamed the Arctic National Wildlife Range the Arctic National Wildlife Refuge through the enactment of ANILCA in 1980. Pub. L. No. 96-487, 94 Stat. 2371 (1980). Through ANILCA, Congress added four purposes for the land now included within the Arctic Refuge, emphasizing the conservation and subsistence objectives of ANILCA. These purposes are: "(i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, the Porcupine 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 . . . the opportunity for continued subsistence uses by local residents; and (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." *Id.* § 303(2)(B).

106. More generally, Congress's intent in establishing conservation system units under ANILCA was to "provide for the maintenance of sound populations of, and habitat for, wildlife species of inestimable value to the citizens of Alaska and the Nation, including those species dependent on vast relatively undeveloped areas; to preserve in their natural state extensive unaltered arctic tundra, boreal forest, and coastal rainforest

ecosystems; to protect the resources related to subsistence needs; [and] to protect and preserve historic and archeological sites, rivers, and lands." 16 U.S.C. § 3101(b).

107. Congress further intended for fish and wildlife within ANILCA conservation system units to be managed "in accordance with recognized scientific principles and the purposes for which each conservation system unit is established, designated, or expanded." *Id.* § 3101(c); *see id.* § 3112(1).

108. Congress also intended for conservation system units established under ANILCA to "provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so." *Id.* § 3101(c); *see id.* § 3112(1). Congress found that the "continuation of the opportunity for subsistence uses . . . is essential to Native physical, economic, traditional, and cultural existence." *Id.* § 3111(1).

109. Congress further found that the "situation in Alaska is unique in that, in most cases, no practical alternative means are available to replace the food supplies and other items gathered from fish and wildlife which supply rural residents dependent on subsistence uses." *Id.* § 3111(2). Congress therefore declared it to be federal policy that the "utilization of the public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands." *Id.* § 3112(1).

110. Under ANILCA, the term "subsistence" is defined broadly to mean "the customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible

byproducts of fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption; and for customary trade." *Id.* § 3113.

111. Subsistence extends beyond a "sufficient food supply" and includes "customary and traditional practices which ANILCA was designed to protect." *Alaska Wilderness Rec'n & Tourism Ass'n v. Morrison*, 67 F.3d 723, 731 (9th Cir. 1995).

112. To achieve these conservation and subsistence objectives, ANILCA establishes both procedural and substantive requirements. Congress explained that the "national interest in the proper regulation, protection, and conservation of fish and wildlife on the public lands in Alaska and the continuation of the opportunity for a subsistence way of life . . . require that an administrative structure be established for the purpose of enabling rural residents who have personal knowledge of local conditions and requirements to have a meaningful role in the management of fish and wildlife and of subsistence uses on the public lands in Alaska." 16 U.S.C. § 3111(5).

113. The ANILCA § 810 process takes place in two phases. Under the first step, commonly known as "Tier 1," the agency must consider: (a) the "effect" of the proposed "use, occupancy, or disposition" on "subsistence uses and needs"; (b) the "availability of other lands for the purposes sought to be achieved"; and (c) "other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes." 16 U.S.C. § 3120(a). In conducting the Tier 1 evaluation, the agency must consider cumulative impacts, along with direct and indirect impacts. *See City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1312 (9th Cir. 1990).

114. If, after completing the Tier 1 evaluation, the agency determines that the proposed activity "may significantly restrict subsistence uses," the agency must proceed to Tier 2. *Kunaknana v. Clark*, 742 F.2d 1145, 1151 (9th Cir. 1984). The Tier 2 threshold is "quite low." *Sierra Club v. Penfold*, 664 F. Supp. 1299, 1307 (D. Alaska 1987), *aff'd* 857 F.2d 1307 (9th Cir. 1988). Only a "threat of significant restriction" is required, and such a restriction "need not be likely." *Hanlon v. Barton*, 740 F. Supp. 1446, 1448 (D. Alaska 1988).

115. In Tier 2, the agency must provide notice, hold hearings, and make a series of detailed findings and determinations demonstrating compliance with ANILCA's substantive standards. The agency is prohibited from authorizing the proposed activity unless and until it: (a) "gives notice to the appropriate State agency and the appropriate local committees and regional councils"; (b) "gives notice of, and holds, a hearing in the vicinity of the area involved; and" (c) "determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions." 16 U.S.C. § 3120(a).

116. Section 810 thus "provides that actions which would significantly restrict subsistence uses can only be undertaken if they are necessary and if the adverse effects are minimized." *Amoco Prod. Co. v. Vill. of Gambell*, 480 U.S. 531, 554 (1987).

117. When the Secretary of the Interior is required to prepare an EIS under NEPA, they or their designee "shall provide the notice and hearing and include the findings required by subsection (a) of this section as part of such environmental impact statement." 16 U.S.C. § 3120(b).

118. Only after a federal agency has complied with ANILCA's requirements regarding subsistence is it authorized to "manage or dispose of public lands" under its jurisdiction for other lawful uses or purposes. *Id.*

119. Furthermore, the Arctic Refuge and other refuges "shall be administered by the Secretary . . . in accordance with the laws governing the administration of units of the National Wildlife Refuge System, and this Act." Pub. L. No. 96-487, § 304(a).

B. National Wildlife Refuge System Administration Act

120. The Refuge Act governs the administration of the National Wildlife Refuge System, including the Arctic Refuge. *See* 16 U.S.C. § 668dd.

121. The mission of the National Wildlife Refuge System is to "administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans." *Id.* § 668(d)(a)(2).

122. In administering the National Wildlife Refuge System, the Secretary of the Interior must comply with statutory management standards, including but not limited to obligations to "provide for the conservation of fish, wildlife, and plants, and their habitats within the System;" "ensure that the biological integrity, diversity, and environmental

health of the System are maintained;" and manage the System in a manner that "contribute[s] to the conservation of the ecosystems of the United States." *Id.* § 668dd(a)(4).

123. Each refuge "shall be managed to fulfill the mission of the System, as well as the specific purposes for which that refuge was established." *Id.* § 668dd(a)(3)(A).

124. The Secretary of the Interior also "shall not initiate or permit a new use of a refuge or expand, renew, or extend an existing use of a refuge, unless the Secretary has determined that the use is a compatible use." *Id.* § 668dd(d)(3(A)(i).

125. A use is "compatible" if it will not "materially interfere with or detract from the fulfillment of the mission of the [National Wildlife Refuge] System or the purposes of the refuge." *Id.* § 668ee(1).

126. Compatibility determinations must be in writing and based on the Secretary's "sound professional judgment." 50 C.F.R. § 25.12.

127. "Sound professional judgment" means a decision "that is consistent with principles of sound fish and wildlife management and administration, available science and resources, and adherence to the requirements of [the Refuge] Act and other applicable laws." 16 U.S.C. § 668ee(3).

C. Tax Act

128. For more than forty years, the State of Alaska and others sought authorization for exploration and development activities in the Coastal Plain of the Arctic Refuge, but they faced strong opposition from the local Alaska Native communities, as

well as the general public. Through ANILCA, Congress expressly prohibited such development. 16 U.S.C. § 3143.

129. In 2017, a provision inserted into the Tax Act added an "oil and gas leasing program on the Coastal Plain" as a new purpose of the Arctic Refuge and opened the Coastal Plain to oil and gas leasing and development. Tax Act § 20001(b)(2)(B)(v). This provision, however, did not modify the other purposes of the Arctic Refuge, and it did not waive, eliminate, or alter any of the procedural requirements and substantive standards applicable to the Arctic Refuge or its Coastal Plain under ANILCA, the Refuge Act, NHPA, NEPA, and other statutes. *See id.* § 20001.

130. The Tax Act requires DOI, acting through BLM, to hold two lease sales within four and seven years of the law's enactment. Each lease sale must offer at least 400,000 acres of land on the Coastal Plain and must include the areas within the Coastal Plain that have the "highest potential for the discovery of hydrocarbons." *Id.* § 20001(c)(1). The Tax Act limited surface development associated with such leasing to a maximum of 2,000 acres for oil and gas production and support facilities. *See id.* § 20001(c)(3).

D. National Historic Preservation Act

131. When Congress enacted the NHPA in 1966, it found and declared that the "historical and cultural foundation of the Nation should be preserved as a living part of our community life and development in order to give a sense of orientation to the American People." Pub. L. No. 89-665, (b), 80 Stat. 915, 915 (1966).

132. The NHPA seeks to "foster the conditions under which our modern society and our historic property can exist in productive harmony and fulfill the social, economic, and other requirements of present and future generations." 54 U.S.C. § 300101(1). The NHPA includes a "series of measures designed to encourage preservation of sites and structures of historic, architectural, or cultural significance." *Pit River Tribe v. U.S. Forest Serv.*, 469 F.3d 768, 787 (9th Cir. 2006) (internal citation omitted).

133. To achieve this "productive harmony" between "our modern society and our historic property," Congress enacted § 106 of the NHPA.

134. Section 106 provides:

> The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department of independent federal agency having authority to license any undertaking, prior to the approval of the expenditure of any Federal funds or prior to the issuance of any license, shall take into account the effect of the undertaking on any historic property. The head of the Federal agency shall afford the [ACHP] a reasonable opportunity to comment with regard to the undertaking.

54 U.S.C. § 306108.

135. Additionally, the NHPA provides: "In carrying out its responsibilities under section 306108 of this title, a Federal agency shall consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to property described in subsection (a)." *Id.* § 302706(b).

136. Subsection (a) provides: "Property of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization may be determined to be eligible for inclusion on the National Register." *Id.* § 302706(a).

137. Congress has delegated to the ACHP the exclusive authority to "promulgate regulations as it considered necessary to govern the implementation of section 306108 of this title in its entirety." *Id*. § 304108(a).

138. The ACHP has promulgated these regulations at 36 C.F.R. Part 800. These regulations are binding on all federal agencies. *See Te-Moak Tribe of W. Shoshone of Nev. v. U.S. Dep't Interior*, 608 F.3d 592, 607 (9th Cir. 2010) (citations omitted).

139. The ACHP's "regulations establish a four-step process" by which federal agencies must fulfill their NHPA § 106 obligations. *Presidio Historical Ass'n v. Presidio Trust*, No. C12-00522, 2013 WL 2435089, at *4 (N.D. Cal. June 3, 2013); *see* 36 C.F.R. §§ 800.3-800.6.

140. The goal of the NHPA § 106 process is to "identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties." 36 C.F.R. § 800.1(a).

141. "The section 106 process seeks to accommodate historic preservation concerns with the needs of Federal undertakings." *Id.* The NHPA § 106 process is a "'stop, look, and listen' provision that requires each federal agency to consider the effects of its programs" on historic properties. *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 805 (9th Cir. 1999) (citation omitted).

142. Initiation. The first step of the NHPA § 106 process requires federal agencies to "determine whether the proposed Federal action is an undertaking . . . and, if so, whether it is the type of activity that has the potential to cause adverse effects on historic properties." 36 C.F.R. § 800.3(a).

143. An undertaking is any "project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of the Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license, or approval." *Id*. § 800.16(y); 54 U.S.C. § 300320.

144. An historic property is "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register." 36 C.F.R. § 800.16(l)(1); 54 U.S.C. § 300308.

145. Eligible for inclusion means "both properties formally determined as such in accordance with [36 C.F.R. Part 63] and all other properties that meet the National Register criteria." 36 C.F.R. § 800.16(l)(2); *see id.* § 60.4 (National Register criteria).

146. Historic properties "include[] properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that meet the National Register criteria." *Id*. § 800.16(l)(1); 54 U.S.C. § 302706(a).

147. Properties of traditional religious and cultural importance are often referred to as TCPs or cultural landscapes.

148. A TCP is a property "eligible for inclusion in the National Register because of its association with cultural practices and beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continued cultural identity of the community." Patricia L. Parker & Thomas F. King, *National Register Bulletin: Guidelines for Evaluating and Documenting Traditional Cultural Properties* 1 (rev. ed. 1998).

149. A cultural landscape is a property encompassing a "geographic area including both cultural and natural resources and wildlife or domestic animals therein, associated with an historic event, activity, or person exhibiting other cultural or aesthetic values." Charles A. Birnbaum, *Preservation Briefs: Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes* 1 (1994).

150. Both TCPs and cultural landscapes are among the historic properties that must be considered by federal agencies during the NHPA § 106 process. *See Muckleshoot Indian Tribe*, 177 F.3d at 807; ACHP, *Information Paper on Cultural Landscapes: Understanding and Interpreting Indigenous Places and Landscapes* 1 (Oct. 11, 2016).

151. The NHPA § 106 process must be initiated early enough in the undertaking's planning process that it can inform the development, evaluation, and selection of alternatives that avoid, minimize, or mitigate adverse effects on historic properties. *See* 36 C.F.R. §§ 800.1(c); 800.6(a); 800.8(a)(2).

152. During the first step, federal agencies must identify "consulting parties," including "any Indian tribes . . . that may attach religious and cultural significance to historic properties in the [undertaking's] area of potential effects" and initiate the consultation process. *Id*. § 800.3(f)(2).

153. Identification and Evaluation. Step two requires federal agencies to determine the undertaking's APE, *id.* § 800.4(a)(1), and "take the steps necessary to identify historic properties" within the APE. *Id.* § 800.4(b).

154. APE means the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties," and it is "influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking." *Id.* § 800.16(d).

155. Agencies must "make a reasonable and good faith effort to carry out appropriate identification efforts." *Id.* § 800.4(b)(1). Such efforts "may include background research, consultation, oral history interviews, sample field investigation, and field survey." *Id*.

156. In addition to identifying historic properties previously listed on, or determined eligible for inclusion on, the National Register, agencies must "apply the National Register criteria . . . to properties identified within the [APE] that have not been previously evaluated for National Register eligibility." *Id*. § 800.4(c)(1).

157. In applying the National Register criteria, agencies must "acknowledge that Indian tribes . . . possess special expertise in assessing the eligibility of historic properties that may possess religious and cultural significance to them." *Id*.

158. Assessment. Step three requires federal agencies to "apply the criteria of adverse effect to historic properties within the [APE]." *Id*. § 800.5(a). This means agencies must "assess the effects of the undertaking" on historic properties within the APE and "determine whether the effect will be adverse." *Mont. Wilderness Ass'n v. Connell*, 725 F.3d 988, 1005 (9th Cir. 2013) (internal quotation omitted).

159. An undertaking causes adverse effects if it "may alter, directly or indirectly, any of the characteristics of the historic property that qualify the property for inclusion in

the National Register in any manner that would diminish the integrity of the property's location, setting, materials, workmanship, feeling, or association." 36 C.F.R. § 800.5(a)(1).

160. Adverse effects do not need to physically alter an historic property to be direct. Direct "refers to the causality, and not the physicality, of the effect." Memo. from ACHP Office of Gen. Counsel to ACHP Staff, *Recent Court Decision Regarding the Meaning of "Direct" in Sections 106 and 110(f) of the National Historic Preservation Act* 2 (June 7, 2019). Accordingly, "if the effect comes from the undertaking at the same time and place with no intervening cause, it is 'direct' regardless of its specific type (e.g., whether it is visual, physical, auditory, etc.)." *Id.*; *see Nat'l Parks Conservation Ass'n v. Semonite*, 916 F.3d 1075, 1088 (D.C. Cir. 2019).

161. "Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative." 36 C.F.R. § 800.5(a)(1).

162. Examples of adverse effects include without limitation:

a. "Physical destruction of or damage to all or part of the property," *id.* § 800.5(a)(2)(i);

b. "Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance," *id.* § 800.5(a)(2)(iv);

c. "Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features," *id.* § 800.5(a)(v); and

d. "Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance," *id.* § 800.5(a)(2)(vii).

163. Resolution. Step four requires federal agencies to "develop and evaluate modifications to the undertaking that could avoid, minimize, or mitigate adverse effects on historic properties." *Id.* § 800.6(a).

164. Agency commitments to avoidance, minimization, and mitigation may be documented through a memorandum of agreement ("MOA"). *See id.* § 800.6(b). The execution and implementation of the MOA "evidences the agency official's compliance with section 106" and governs NHPA § 106 compliance for the undertaking moving forward. *Id.* § 800.6(c).

165. A PA, instead of an MOA, may be developed "for dealing with the potential adverse effects of complex projects or multiple undertakings," such as long-term or phased undertakings. *Id.* § 800.14(b)(3). A PA controls NHPA § 106 compliance for the undertaking as it is implemented and supersedes the procedures established at 36 C.F.R. Part 800.

166. Consultation. Consultation is the most important aspect of the NHPA § 106 process. The accommodation of historic preservation concerns with the needs of federal undertakings occurs "*through consultation*." *Id.* § 800.1(a) (emphasis added)).

167. In carrying out their NHPA § 106 obligations, federal agencies are required to "consult with any Indian tribe . . . that attaches religious and cultural significance to historic properties that may be affected by the undertaking." *Id*. § 800.2(c)(2)(ii); 54 U.S.C. § 302706(b).

168. Consultation is the "process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the section 106 process." 36 C.F.R. § 800.16(f).

169. The statutory obligation to consult with Tribes requires federal agencies to grant Tribes "*special consideration* in the course of the agency's fulfillment of its consultation obligations." *Quechan Tribe of Fort Yuma Indian Reservation v. U.S. Dept. Interior*, 755 F. Supp. 2d 1104, 1109 (S.D. Cal. 2010) (emphasis in original).

170. Consultation with Tribes is "not an empty formality," *id*. at 1108, and cannot be satisfied by "mere *pro forma* recitals," "professions of good intent," and "solicitations to consult." *Id*. at 1118. Instead, consultation "should be conducted in a sensitive manner respectful of tribal sovereignty," 36 C.F.R. § 800.2(c)(2)(ii)(B); it "must recognize the government-to-government relationship," *id*. § 800.2(c)(2)(ii)(C); and it should be "conducted in a manner sensitive to the concerns and needs of the Indian tribe." *Id*.

171. Consultation "should commence early in the planning process" and must ensure that Tribes are provided a "reasonable opportunity to identify [their] concerns about historic properties, advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, articulate

[their] views on such properties, and participate in the resolution of adverse effects." *Id.* § 800.2(c)(2)(ii)(A).

172. Federal agencies must consult with Tribes at specific points in the NHPA § 106 process about specific determinations, including without limitation the following.

a. Identification. In determining and documenting the APE, federal agencies must "gather information from any Indian tribe . . . to assist in identifying properties . . . which may be of religious and cultural significance to them and may be eligible for the National Register," *id.* § 800.4(a)(4). Federal agencies must "take the steps necessary to identify historic properties within the [APE]" "in consultation with . . . any Indian tribe . . . that might attach religious and cultural significance to properties within the [APE]." *Id.* § 800.4(b).

b. Evaluation. Federal agencies must apply the National Register criteria to previously unidentified or unevaluated historic properties "[i]n consultation with . . . any Indian tribe . . . that attaches religious and cultural significance to identified properties." *Id.* § 800.4(c)(1). In applying the National Register criteria, federal agencies must "acknowledge that Indian tribes . . . possess special expertise in assessing the eligibility of historic properties that may possess religious and cultural significance to them." *Id.*

c. Assessment. Federal agencies must apply the criteria of adverse effect to historic properties within the APE "[i]n consultation with . . . any Indian tribe . . . that attaches religious and cultural significance to identified historic properties." *Id.* § 800.5(a).

d. Resolution. Federal agencies "shall consult with . . . Indian tribes . . . to develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize, or mitigate adverse effects on historic properties." *Id.* § 800.6(a).

173. Public Participation. ACHP regulations recognize that the "views of the public are essential to informed Federal decisionmaking" concerning historic properties. *Id.* § 800.2(d)(1). Accordingly, federal agencies "shall seek and consider the views of the public in a manner that reflects the nature and complexity of the undertaking and its effects on historic properties, the likely interest of the public in the effects on historic properties . . . and the relationship of the Federal involvement to the undertaking." *Id.*

174. Federal agencies must "provide the public with information about an undertaking and its effects on historic properties and seek public comment and input." *Id.* § 800.2(d)(2); *see Winnemem Wintu Tribe v. U.S. Dep't Interior*, No. CIV. 2:09-cv-01072-FCD EFB, 2009 WL 10693214, at *7 (E.D. Cal. Sept. 15, 2009); *Mont. Wilderness Ass'n v. Fry*, 310 F. Supp. 2d 1127, 1151 (D. Mont. 2004).

175. The obligation to involve the public applies at every step of the NHPA § 106 process, including without limitation the following.

a. Initiation. During the first step, federal agencies "shall plan for involving the public in the section 106 process[and] . . . identify the appropriate points for seeking public input and for notifying the public of proposed actions." *Id.* § 800.3(e).

b. Identification and Evaluation. During the second step, federal agencies must make "available for public inspection prior to approving the undertaking"

documentation that no historic properties are present within the APE or that the undertaking will not affect historic properties present within the APE." *Id.* § 800.4(d)(1).

c. Assessment. During the third step, federal agencies "shall consider any views concerning [adverse] effects that have been provided by . . . the public." *Id.* § 800.5(a).

d. Resolution. During the fourth step, federal agencies "shall make information available to the public," "provide an opportunity for members of the public to express their views on resolving adverse effects of the undertaking," and "use appropriate mechanisms . . . to ensure that the public's views are considered." *Id.* § 800.6(a)(4).

E. National Environmental Policy Act

176. NEPA requires federal agencies to prepare an EIS before approving any "major Federal action[] significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). Regulations promulgated by the Council of Environmental Quality ("CEQ") to implement NEPA are set forth at 40 C.F.R. §§ 1500–1508, and they are binding on all federal agencies.[4] *See* 40 C.F.R. § 1500.3. Federal agencies "shall integrate the NEPA process with other planning at the earliest possible time." *Id.* § 1501.2; *accord* 36 C.F.R. § 800.8(a).

[4] CEQ has recently revised its regulations implementing NEPA, and the changes take effect September 14, 2020. *See* 85 Fed. Reg. 43,304 (July 16, 2020). CEQ's prior regulations govern Defendants' decision-making in this matter. All references in this complaint are to the 1978 CEQ regulations as they existed prior to September 14, 2020.

177. An agency preparing an EIS "may not 'segment' its analysis so as to conceal the environmental significance of the project or projects." *Hammond v. Norton*, 370 F. Supp. 2d 226, 244 (D.D.C. 2005) (internal quotation omitted). "Connected" actions should be considered together in the same EIS. 40 C.F.R. § 1508.25(a). Actions are connected if they: (a) "[a]utomatically trigger other actions which may require environmental impact statements;" (b) "[c]annot or will not proceed unless other actions are taken previously or simultaneously;" or (c) "[a]re interdependent parts of a larger action and depend on the larger action for their justification." *Id*. § 1508.25(a)(1).

178. Courts apply an "independent utility" test to determine "whether multiple actions are so connected as to mandate consideration in a single EIS." *Sierra Club v. U.S. Bureau Land Mgmt.*, 786 F.3d 1219, 1226 (9th Cir. 2015). Relevant factors include without limitation: (a) whether each project would have taken place without the other; (b) whether projects have been separated from each other to circumvent full NEPA review or downplay impacts; (c) whether each project was intended to stand alone; (d) whether one project would be irrational or unwise without another; and (e) whether a project will render a subsequent project a *fait accompli* or otherwise tie the agency's hands.

179. NEPA requires federal agencies to take a "hard look" at the environmental consequences of their actions in an EIS. *Metcalf v. Daley*, 214 F.3d 1135, 1141 (9th Cir. 2000). The effects that must be analyzed in the EIS include without limitation impacts on natural resources, ecosystems, cultural resources, social systems, and health. 40 C.F.R. § 1508.8(b); *see id.* § 1508.14. An EIS must:

a. "Rigorously explore and objectively evaluate all reasonable alternatives," *id*. § 1502.14(a);

b. Analyze the "environmental effects of alternatives including the proposed action," *id*. § 1502.16(d);

c. Analyze "[d]irect effects and their significance" and "[i]ndirect effects and their significance," *id*. § 1502.16(a)–(b); *see id.* § 1508.8;

d. Analyze the "cumulative impact" on the environment resulting from the "incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency . . . or person undertakes such other actions," *id*. § 1508.7; *see id.* §§ 1502.16, 1508.8; and

e. Analyze the "[m]eans to mitigate adverse environmental impacts," *id*. § 1502.16(h); *see id.* §§ 1502.14(f), 1508.20.

180. An agency "[s]hall prepare supplements to either draft or final environmental impact statements if: (i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or (ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." *Id*. § 1502.9(c)(1).

181. NEPA seeks to ensure the use of high-quality scientific information and mandates scientific integrity. *See id*. §§ 1500.1(b), 1502.24. In the absence of adequate baseline data, "there is simply no way to determine what effect the proposed [action] will have on the environment and, consequently, no way to comply with NEPA." *Half Moon Bay Fisherman's Mktg. Ass'n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988). Where

"incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information in the environmental impact statement." 40 C.F.R. § 1502.22(a).

182. Overall, the analysis in the EIS must provide a "clear basis for choice among options by the decisionmaker and the public." *Id*. § 1502.14.

F. Administrative Procedure Act

183. Under the APA, the "reviewing court shall . . . compel agency action unlawfully withheld or unreasonably delayed . . . [and] hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" or "without observance of procedure required by law." 5 U.S.C. § 706(1), (2)(A), (D).

184. An agency "must examine the relevant data and articulate a satisfactory explanation for its action, including a rational connection between the facts found and the choice made." *Encino Motorcars, LLC v. Navarro*, 136 S. Ct. 2117, 2125 (2016) (internal quotation omitted).

185. An agency action, finding, or conclusion is arbitrary and capricious if the agency has "relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Ctr. for*

Biological Diversity v. Zinke, 900 F.3d 1053,1067 (9th Cir. 2018) (internal quotation omitted).

186. A federal agency's failure to consult with a Tribe during the NHPA § 106 process may be challenged under Section 706(1) of the APA as a failure to act. *See Grand Canyon Trust v. Williams*, 38 F. Supp. 3d 1073, 1083 (D. Ariz. 2014).

VI. FIRST CLAIM

Violations of the Refuge Act and ANILCA: Failure to Make a Compatibility Determination and Failure to Approve a Leasing Program Compatible with the Purposes of and Consistent with the Management Standards Applicable to the Arctic Refuge

187. Plaintiffs repeat and incorporate by reference the allegations set forth in paragraphs 1 through 186 above.

188. Under the Refuge Act, the Arctic Refuge and other refuges "shall be managed to fulfill the mission of the System, as well as the specific purposes for which that refuge was established." 16 U.S.C. § 668dd(a)(3)(A).

189. The Secretary of the Interior must "provide for the conservation of fish, wildlife, and plants, and their habitats within the System;" "ensure that the biological integrity, diversity, and environmental health of the System are maintained;" and manage the System in a manner that "contribute[s] to the conservation of the ecosystems of the United States." *Id.* § 668dd(a)(4).

190. The mission of the National Wildlife Refuge System is to "administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the

United States for the benefit of present and future generations of Americans." *Id.* § 668(d)(a)(2).

191. Under ANILCA, the Arctic Refuge and other refuges "shall be administered" by the Secretary of the Interior "in accordance with the laws governing the administration of units of the National Wildlife Refuge System and [ANILCA]." ANILCA § 304(a), Pub. L. No. 96-487, 94 Stat. 2371.

192. Conservation system units established under ANILCA, including the Arctic Refuge, are expected to be managed "in accordance with recognized scientific principles and the purposes for which each conservation system unit is established, designated, or expanded." 16 U.S.C. § 3101(c); *see id.* § 3112(1).

193. The original and ANILCA purposes of the Arctic Refuge emphasize the conservation of wildlife, habitat, and ecosystems, the continuation of traditional subsistence-based ways of life, and the protection of historic properties. *See* PLO 2214 (Dec. 6, 1960); ANILCA § 303(2)(B), Pub. L. No. 96-487, 94 Stat. 2371; 16 U.S.C. §§ 3101, 3111, 3112.

194. Congress has also declared it to be federal policy that the "utilization of the public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands." 16 U.S.C. § 3112(1).

195. The Leasing Program is a new use of the Arctic Refuge that required a compatibility determination.

196. Defendants have failed to make a determination that the Leasing Program is compatible with the other purposes of the Arctic Refuge.

197. Defendants have approved an oil and gas leasing program for the Coastal Plain of the Arctic Refuge that maximizes industrial development opportunities and will cause grave harm to subsistence, wildlife, habitat, ecosystems, historic properties, cultural resources, and public health.

198. In doing so, Defendants failed to meaningfully consider and take into account relevant factors, including but not limited to the original Refuge purposes set forth in PLO 2214.

199. Defendants have failed to demonstrate that their proposed mitigation measures are sufficient to reduce adverse impacts to levels compatible with the purposes of and consistent with the management standards governing the Arctic Refuge.

200. To the extent Defendants have addressed compatibility with Refuge purposes or consistency with management standards, Defendants have failed to provide a rational explanation to support a compatibility determination, consistency with applicable management standards, or their decision to approve the Leasing Program.

201. Defendants' approval of the Leasing Program is an exercise of their authority to manage the Arctic Refuge, and it is subject to the requirements of the Refuge Act and ANILCA.

202. Defendants' approval of the Leasing Program is also a final agency action subject to the standards for federal agency decision-making in the APA. 5 U.S.C. § 706(2).

203. For the foregoing reasons and others, Defendants' decision to approve the Leasing Program despite its incompatibility with the purposes of the Arctic Refuge and

its inconsistency with applicable management standards violates ANILCA § 304(a), Pub. L. No. 96-487, 94 Stat. 2371, 16 U.S.C. § 3114, the Refuge Act, 16 U.S.C. § 668dd, and their implementing regulations, and it is arbitrary, capricious, an abuse of discretion, contrary to law, and without observance of the procedure required by law under the APA. 5 U.S.C. § 706(2).

VII. SECOND CLAIM

Violations of ANILCA § 810: Failure to Comply with Procedural and Substantive Requirements for Subsistence Evaluation and Protection

204. Plaintiffs repeat and incorporate by reference the allegations set forth in paragraphs 1 through 203 above.

205. ANILCA is meant to "enabl[e] rural residents who have personal knowledge of local conditions and requirements to have a meaningful role in the management of fish and wildlife and of subsistence uses on the public lands in Alaska." 16 U.S.C. § 3111(5).

206. Federal agencies are prohibited from authorizing any "withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses" unless and until the relevant agency first completes the evaluations and makes the findings specified in ANILCA § 810. *Id.*

207. Under ANILCA § 810, federal agencies "shall evaluate the effect" of any proposed "use, occupancy, or disposition" of public lands on "subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public

lands needed for subsistence purposes." *Id*. § 3120(a). If, after completing the Tier 1 evaluation, the agency determines that the proposed activity "may significantly restrict" subsistence uses, the agency must proceed to Tier 2. *Kunaknana*, 742 F.2d at 1151.

208. In Tier 2, the agency must provide notice, conduct hearings, and make a series of detailed findings and determinations demonstrating compliance with ANILCA's substantive standards, including without limitation determinations that (a) the restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands; (b) the proposed activity will involve the minimal amount of public lands necessary; and (c) reasonable steps will be taken to minimize adverse impacts on subsistence uses. *See* 16 U.S.C. § 3120(a).

209. Only after a federal agency has complied with ANILCA's requirements regarding subsistence is it authorized to "manage or dispose of public lands" under its jurisdiction for other lawful uses or purposes. *Id.* § 3120(d).

210. Defendants applied an erroneous and unlawful threshold at the outset of the Tier 1 evaluation based on close proximity and heavy subsistence use.

211. Defendants failed to conduct a Tier 1 evaluation for all nine Gwich'in subsistence communities they identified as relying on the caribou that will be affected by the Leasing Program.

212. Defendants prepared a deeply flawed and inadequate Tier 1 evaluation for only four subsistence communities: Arctic Village, Venetie, Kaktovik, and Nuiqsut.

213. Defendants only considered alternatives maximizing oil and gas development and failed to consider an adequate range of alternatives that would "reduce

or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes." 16 U.S.C. § 3120(a).

214. Defendants failed to adequately evaluate the direct, indirect, and cumulative impacts of the Leasing Program on subsistence.

215. Defendants applied a standard higher than the applicable "may significantly restrict" subsistence uses standard in determining whether to proceed to Tier 2.

216. Defendants made an erroneous, unfounded, and unlawful determination that the Leasing Program would not significantly restrict subsistence uses with respect to Arctic Village, Venetie, and seven other Gwich'in subsistence communities.

217. Defendants failed to conduct any Tier 2 analysis, hold any formal subsistence hearings, or make any formal findings pursuant to ANILCA § 810(a)(3) in connection with Arctic Village, Venetie, and seven other Gwich'in subsistence communities.

218. Defendants' approval of the Leasing Program is a federal authorization subject to ANILCA § 810 requirements. Defendants' approval of the Leasing Program is also a final agency action subject to the standards for federal agency decision-making in the APA. 5 U.S.C. § 706(2).

219. For the foregoing reasons and others, Defendants' approval of the Leasing Program without having conducted a valid ANILCA § 810 process violates ANILCA and its implementing regulations, and it is arbitrary, capricious, an abuse of discretion, contrary to law, and without observance of the procedure required by law under the APA. 5 U.S.C. § 706(2).

VIII. THIRD CLAIM

Violations of NHPA § 106: Failure to Comply with Procedural and Substantive Requirements for Historic Property Evaluation and Protection

220. Plaintiffs repeat and incorporate by reference the allegations set forth in paragraphs 1 through 219 above.

221. Before expending any federal funds on or issuing any license for a proposed "undertaking," NHPA § 106 provides that federal agencies "shall take into account the effect of the undertaking on any historic property" and "shall afford" the ACHP a "reasonable opportunity to comment with regard to the undertaking." 54 U.S.C. § 306108.

222. ACHP regulations establish a four-step process for complying with NHPA § 106: (1) initiation; (2) identification and evaluation; (3) assessment; and (4) resolution. *See* 36 C.F.R. §§ 800.3–800.6.

223. In carrying out their NHPA § 106 obligations, federal agencies "shall consult with any Indian tribe . . . that attaches religious and cultural significance to historic property that may be affected by an undertaking." *Id.* § 800.2(c)(2)(ii); 54 U.S.C. § 302706(b).

224. In the NHPA § 106 process, federal agencies must give Tribes special consideration, recognizing the government-to-government relationship and taking into account Tribes' special expertise. *See* 36 C.F.R. § 800.2(c)(2)(ii)(A)-(C).

225. Federal agency consultation with Tribes "should commence early in the planning process," and each Tribe must have a reasonable opportunity to "identify its

concerns about historic properties, advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, articulate its views on such properties, and participate in the resolution of adverse effects." *Id.* § 800.2(c)(2)(ii)(A).

226. Federal agencies must consult with Tribes at many points about specific determinations, including but not limited to information-gathering, identification and evaluation of historic properties, alternatives development, assessment of effects, development and consideration of alternatives and modifications to the undertaking that avoid, minimize, or mitigate adverse effects, and development and implementation of the MOA or PA. *See id*. §§ 800.3–800.6.

227. Federal agencies must also provide the public with information and documentation regarding the undertaking and adverse effects, and they must seek and consider the views of the public at many points throughout the NHPA § 106 process. *See id*. §§ 800.2–800.6, 800.11.

228. Defendants failed to initiate the NHPA § 106 process early enough in the development of the Leasing Program for it to inform the development, evaluation, and selection of Leasing Program alternatives evaluated in the NEPA process and the selection of the final Leasing Program alternative in the ROD. Defendants only considered alternatives maximizing oil and gas development and failed to develop and consider an adequate range of alternatives that would avoid, minimize, or mitigate adverse effects on historic properties. *See* 36 C.F.R. §§ 800.1(c); 800.6(a); 800.8(a)(2).

229. Defendants failed to engage in adequate and meaningful consultation with Plaintiffs and, on information and belief, other consulting parties in the NHPA § 106 process, including without limitation in identifying and evaluating historic properties for National Register-eligibility, assessing the Leasing Program's effects on historic properties, developing and evaluating alternatives and modifications to the Leasing Program that would avoid, minimize, or mitigate adverse effects on historic properties, and in developing the PA.

230. Defendants improperly limited the scope of the NHPA § 106 process by failing to take into account the Leasing Program's adverse effects on landscape-level historic properties of traditional religious and cultural significance to Plaintiffs and, on information and belief, other consulting parties, such as the Sacred Place Where Life Begins.

231. Defendants failed to engage the public in the NHPA § 106 process by failing to provide the public with adequate opportunities for participating, including without limitation opportunities to comment on the NHPA § 106 process, the identification and evaluation of historic properties, and the assessment and resolution of adverse effects.

232. The Leasing Program is an undertaking subject to NHPA § 106 requirements. Defendants' approval of the Leasing Program is a final agency action subject to the standards for federal agency decision-making in the APA. 5 U.S.C. § 706.

233. For the foregoing reasons and others, Defendants' approval of the Leasing Program without having conducted a valid NHPA § 106 process violates the NHPA and

its implementing regulations, and it is arbitrary, capricious, an abuse of discretion, contrary to law, and without observance of the procedure required by law under the APA. *Id.* § 706(2)(A), (C).

234. The Court must compel Defendants to engage in the adequate and meaningful consultation that they unlawfully withheld. *Id.* § 706(1).

IX. FOURTH CLAIM

Violations of the Tax Act: Failure to Properly Interpret and Implement Surface Development Limitation

235. Plaintiffs repeat and incorporate by reference the allegations set forth in paragraphs 1 through 234 above.

236. The Tax Act provides that the Secretary of the Interior "shall authorize up to 2,000 surface acres of Federal land on the Coastal Plain to be covered by production and support facilities (including airstrips and any areas covered by gravel berms or piers for support of pipelines) during the term of the leases under the oil and gas program under this section." Pub. L. No. 115-97, § 20001(c)(3).

237. Defendants erroneously and unlawfully interpret this provision to mean that they cannot authorize surface development in an amount less than 2,000 acres in connection with the Leasing Program.

238. Defendants erroneously and unlawfully interpret this provision as mandating that facilities counting toward the 2,000 acres must be both "production" *and* "support facilities."

239. Defendants erroneously and unlawfully interpret this provision as allowing them to exclude airstrips, roads, pads, gravel pits and stockpiles, barge landing and storage facilities, and other facilities from the 2,000 acres.

240. Defendants erroneously and unlawfully interpret this provision as excluding rights-of-way and easements from the 2,000-acre limitation.

241. These interpretations and others violate the plain meaning and intent of the 2,000-acre limitation in the Tax Act.

242. Defendants developed and approved the Leasing Program in reliance on these erroneous and unlawful statutory interpretations.

243. Defendants have rejected proposed alternatives on the basis of these erroneous and unlawful interpretations.

244. Defendants' erroneous and unlawful interpretations would allow surface infrastructure associated with the Leasing Program to cover more than 2,000 acres, in violation of the Tax Act.

245. Defendants' approval of the Leasing Program is a final agency action subject to the standards for federal agency decision-making in the APA. 5 U.S.C. § 706(2).

246. For the foregoing reasons and others, Defendants' approval of the Leasing Program in reliance on erroneous and unlawful legal interpretations violates the Tax Act § 20001(c)(3), and it is arbitrary, capricious, an abuse of discretion, contrary to law, and without observance of the procedure required by law under the APA. 5 U.S.C. § 706(2).

X. FIFTH CLAIM

Violations of NEPA

1. Improper Segmentation of the NEPA Review for the Leasing Program from the NEPA Review for Pre-Leasing Seismic Activities

247. Plaintiffs repeat and incorporate by reference the allegations set forth in paragraphs 1 through 246 above.

248. NEPA requires federal agencies to prepare an EIS before approving any "major Federal action[] significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C).

249. "Connected" actions should be considered together in the same EIS. 40 C.F.R. § 1508.25(a). It is mandatory for multiple actions to be considered together where one or more of them lack independent utility or if their separation reflects an intent to circumvent a full and meaningful NEPA review.

250. In spring 2018, SAExploration, Inc., submitted an application to Defendants seeking authorization for large-scale and intensive pre-leasing seismic survey activities throughout the Coastal Plain of the Arctic Refuge.

251. The results of such pre-leasing seismic surveying activities are intended to help inform the Leasing Program.

252. Defendants excluded pre-leasing seismic surveying activities from the NEPA review for the Leasing Program. Instead, Defendants initiated a separate NEPA review for these activities, and this process remained in the early stages of scoping at the time the Final EIS for the Leasing Program was issued. As such, the final information

and analyses from the pre-leasing seismic NEPA review were not available and could not be incorporated into or relied on in the Final EIS.

253. In the absence of the Leasing Program, the pre-leasing seismic surveying activities would have no independent utility.

254. Plaintiffs are informed and believe that the NEPA review for the pre-leasing seismic surveying activities and the NEPA review for the Leasing Program have been improperly separated from each other as a means to circumvent full environmental review and/or to downplay the combined impacts of the two actions.

255. The Leasing Program is a major federal action significantly affecting the quality of the human environment, and it is therefore subject to the requirements of NEPA and its implementing regulations.

256. Defendants' issuance of the Final EIS and their approval of the Leasing Program are each final agency actions subject to the standards for federal agency decision-making in the APA. 5 U.S.C. § 706(2).

257. For the foregoing reasons and others, Defendants' issuance of a Final EIS that excludes pre-leasing seismic surveying activities and their approval of the Leasing Program without having analyzed the impacts of pre-leasing seismic surveying activities constitute unlawful segmentation in violation of NEPA and its implementing regulations. These decisions are also arbitrary, capricious, an abuse of discretion, contrary to law, and without observance of the procedure required by law under the APA, 5 U.S.C. § 706(2).

2. Failure to Consider a Reasonable Range of Alternatives.

258. Plaintiffs repeat and incorporate by reference the allegations set forth in paragraphs 1 through 257 above.

259. An EIS must "[r]igorously explore and objectively evaluate all reasonable alternatives." 40 C.F.R. § 1502.14(a).

260. The action alternatives in the Final EIS are very similar to each other and heavily weighted toward maximizing oil and gas development.

261. Each of the action alternatives: (a) allows seismic surveying to occur throughout the entire program area, including areas closed to leasing; (b) allows leasing in the majority or entirety of the program area; (c) allows for surface development on at least 2,000 acres; (d) fails to exclude key lands from leasing, such as caribou calving and post-calving areas; and (e) is subject to mitigation measures which have not been analyzed or shown to be effective and are broadly subject to waivers, exemptions, and modifications.

262. None of the action alternatives in the Final EIS maximize protection for subsistence, wildlife, habitat, ecosystems, historic properties, cultural landscapes, TCPs, and/or public health.

263. Due to the flawed ANILCA § 810 process, the action alternatives in the Final EIS reflect inadequate Tier 1 analyses and do not reflect any Tier 2 formal subsistence hearings or findings relating to Arctic Village, Venetie, or any other Gwich'in subsistence community. As a consequence, Defendants failed to adequately

consider which areas not to offer for leasing to reduce impacts on subsistence, and the alternatives do not include sufficient features designed to reduce impacts on subsistence.

264. Due to the delayed, deferred, and inadequate NHPA § 106 process, the action alternatives in the Final EIS do not reflect the required consultations and evaluations with respect to historic properties, including cultural landscapes such as the Sacred Place Where Life Begins, and do not include features designed to reduce adverse impacts on them.

265. Defendants' erroneous and unlawful interpretations of the Tax Act have skewed the alternatives toward maximizing industrial development by: (a) requiring all the action alternatives to provide for at least 2,000 acres of surface development; (b) mandating that facilities counting toward the 2,000 acres must be both "production" *and* "support facilities"; (c) allowing the exclusion of airstrips, roads, pads, gravel pits and stockpiles, barge landing and storage facilities, and other facilities from the 2,000 acres; and (d) excluding rights-of-way and easements from the 2,000-acre limitation.

266. The Leasing Program is a major federal action significantly affecting the quality of the human environment, and it is therefore subject to the requirements of NEPA and its implementing regulations.

267. Defendants' issuance of the Final EIS and their approval of the Leasing Program are each final agency actions subject to the standards for federal agency decision-making in the APA. 5 U.S.C. § 706(2).

268. For the foregoing reasons and others, Defendants' issuance of a Final EIS that fails to evaluate a reasonable range of alternatives and their approval of the Leasing

Program without having analyzed a reasonable range of alternatives violate NEPA and its implementing regulations. These decisions are also arbitrary, capricious, an abuse of discretion, contrary to law, and without observance of the procedure required by law under the APA. 5 U.S.C. § 706(2).

3. Failure to Properly Analyze Direct and Indirect Effects, Cumulative Impacts, and Mitigation Measures

269. Plaintiffs repeat and incorporate by reference the allegations set forth in paragraphs 1 through 268 above.

270. NEPA requires federal agencies to take a hard look at the environmental consequences of their actions.

271. An EIS must analyze the environmental effects of the alternatives, including without limitation direct and indirect effects, cumulative impact, and mitigation measures. *See* 40 C.F.R. §§ 1502.14, 1502.16, 1508.7, 1508.8, 1508.20.

272. The effects that must be analyzed in the EIS include without limitation impacts on natural resources, ecosystems, subsistence, cultural resources, social systems, and health. *See id*. §§ 1508.8, 1508.14.

273. NEPA seeks to ensure the use of high-quality scientific information and mandates scientific integrity. *See id.* §§ 1500.1(b), 1502.24.

274. Overall, the analysis in the EIS must provide a "clear basis for choice among options by the decisionmaker and the public." *Id.* § 1502.14.

275. Throughout the Final EIS, Defendants' evaluation of impacts was based on development scenarios utilizing unduly low oil production estimates ranging from about

2.4 BBO for Alternatives D1 and D2 to roughly 2.7 BBO for Alternative C and 3.0 BBO for Alternative B. Defendants have erroneously characterized these oil production estimates as "optimistic high-production" levels used to "minimize the chance that the resultant impact analysis will understate potential impacts." Final EIS, at B-3. Truly high-end estimates, however, would be in the range of approximately 10.0 BBO or greater as supported by DOI analyses. The corresponding extent of oil and gas facilities and operations evaluated in the action alternatives would be approximately triple what is described in the Final EIS. Defendants' use of unduly low oil production estimates thus resulted in an understatement of impacts in the Final EIS. Defendants also failed to properly develop and evaluate mitigation measures addressing the impacts associated with the full scope of potential oil and gas development.

276. Defendants' belated, erroneous, and unlawful interpretations of the Tax Act are different from the assumptions underlying the RFD that the analysis of environmental consequences was based on, and this renders the Final EIS's evaluation of direct, indirect, and cumulative impacts and mitigation measures inaccurate and inadequate as a basis for informed decision-making.

277. Defendants improperly excluded pre-leasing seismic surveying activities from the NEPA review for the Leasing Program, rather than considering these closely interrelated activities as part of the same NEPA review process. As a result, Defendants failed to acknowledge and properly evaluate the combined impacts of these activities, and this led to an understatement of impacts in the Final EIS. Defendants also failed to

properly develop and evaluate mitigation measures addressing the impacts associated with the full scope of leasing-related activities.

278. The analyses of direct and indirect effects, cumulative impacts, and mitigation measures relating to subsistence, sociocultural systems, environmental justice, public health, cultural resources, caribou, migratory waterfowl, vegetation, tundra, wetlands, soils, permafrost, sand, and gravel are flawed, inadequate, and unlawful in numerous ways, as described above.

279. In an effort to address the many flaws, inadequacies, and gaps in the Final EIS, Defendants improperly relied on, purported to tier to, and/or attempted to incorporate by reference, with little or no accompanying summary or explanation, numerous other documents, including but not limited to non-NEPA documents, non-federal documents, future or incomplete NEPA reviews, and NEPA reviews concerning unrelated projects and activities.

280. The Leasing Program is a major federal action significantly affecting the quality of the human environment, and it is therefore subject to the requirements of NEPA and its implementing regulations.

281. Defendants' issuance of the Final EIS and their approval of the Leasing Program are each final agency actions subject to the standards for federal agency decision-making in the APA. 5 U.S.C. § 706(2).

282. For the foregoing reasons and others, Defendants' issuance of the Final EIS and their approval of the Leasing Program without having properly analyzed direct and indirect effects, cumulative impacts, and mitigation measures violate NEPA and its

implementing regulations. These decisions are also arbitrary, capricious, an abuse of discretion, contrary to law, and without observance of the procedure required by law under the APA. 5 U.S.C. § 706(2).

4. Failure to Prepare a Supplemental EIS

283. Plaintiffs repeat and incorporate by reference the allegations set forth in paragraphs 1 through 282 above.

284. CEQ regulations implementing NEPA require federal agencies to prepare a supplemental EIS whenever the agency "makes substantial changes in the proposed action that are relevant to environmental concerns" or there are "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 C.F.R. § 1502.9(c)(1).

285. Defendants' abandonment of the rationale and key assumptions underlying the RFD and the entire analysis of environmental consequences in the EIS, together with their belated assertion of differing legal interpretations of the Tax Act, constitute "substantial changes in the proposed action that are relevant to environmental concerns" as well as "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts."

286. Defendants were required to prepare a supplemental EIS, and their failure to do so violates 40 C.F.R. § 1502.9(c)(1).

287. The Leasing Program is a major federal action significantly affecting the quality of the human environment, and it is therefore subject to the requirements of NEPA and its implementing regulations.

288. Defendants' issuance of the Final EIS and their approval of the Leasing Program are each final agency actions subject to the standards for federal agency decision-making in the APA. 5 U.S.C. § 706(2).

289. For the foregoing reasons and others, Defendants' failure to prepare a supplemental EIS and their approval of the Leasing Program based on a faulty EIS that depends on legal assumptions no longer in effect without the benefit of a revised analysis of impacts in a supplemental EIS violate NEPA and its implementing regulations, and these decisions are also arbitrary, capricious, an abuse of discretion, contrary to law, and without observance of the procedure required by law under the APA. 5 U.S.C. § 706(2).

XI. REQUEST FOR RELIEF

WHEREFORE, Plaintiffs respectfully request that this Court grant the following relief:

A. Enter a declaratory judgment that Defendants' actions, findings, conclusions, decisions, and failures to act pertaining to the Final EIS, ANILCA § 810 Final Evaluation, NHPA § 106 process, NHPA § 106 PA, and ROD approving the Leasing Program violate ANILCA, the Refuge Act, the Tax Act, NHPA, and NEPA, and that these actions, findings, conclusions, decisions, and failures to act are arbitrary, capricious, an abuse of discretion, not in accordance with law, and without observance of procedure as required by law;

B. Vacate and set aside the Final EIS, ANILCA § 810 Final Evaluation, NHPA § 106 PA, and ROD approving the Leasing Program, and any decisions to lease or actual leases;

C. Enter appropriate injunctive and mandamus relief;

D. Award Plaintiffs all reasonable attorney fees and costs as authorized by law, including without limitation the NHPA, 54 U.S.C. § 307105, and the Equal Access to Justice Act, 28 U.S.C. § 2412; and

E. Grant such other relief as this Court deems just and proper.

DATED: September 9, 2020

Respectfully submitted,

NATIVE AMERICAN RIGHTS FUND

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Enclosure 4

Comments from The Native Village of Venetie Tribal Government, The Arctic Village Council, and The Venetie Village Council on Leasing Program Final EIS (Aug. 2, 2019)

Administrative Final EIS, for BLM and Cooperating Agency Review

To BLM and Cooperating Agency Reviewers:

The **Administrative Review Final EIS**, is intended for BLM and cooperating agency review. (Please do not distribute.)

- Please complete the MSWord comment matrix (provided at the end of these instructions) by saving this file with a new file name including your last name (for example, name your comment matrix "140L6318F0003_AdminFinalEIS_BLM-agency-cmmts_20190722_HayesN.docx"), and then fill out your comments on the document.

How to Provide Valuable Feedback

Commenting:
For each comment, please fill in the following information under the appropriate column heading in the matrix:

✓ Page number, line number, or table number on which you are commenting. **The page and line numbers in the PDF file MUST be used.**

✓ Your comments:

- **Your comments must be specific and provide exact changes to the text.** Please be unambiguous, clear, and directive, with exact wording changes stated. Ambiguous comments, such as "What?," "Poor," or "Is this right?," are not helpful and will not be considered.
- If you have the same comment more than once, do not refer back to a previous comment number. Instead, please copy and paste your comment to a new row in the matrix and provide the specific page number, etc.
- If you need additional space for comments, click in the table cell where you would like to comment, select the *Table* menu, *Insert*, and either *Rows Above* or *Rows Below*.

✓ Reviewers should keep this in mind, and constructive comments should focus on the following:

- Adequacy of addressing the purpose and need.
- Missing information, such as tribal, local and state planning documents or other readily-available data.
- Inconsistencies between stipulations and required operating procedures in the alternatives.
- Adequate illustrations of the alternatives in the maps.
- Adequacy and appropriate level of direct, indirect, and cumulative impact analysis. Provide specific changes to improve analysis and note any gaps in logic.
- Consistency of impact analysis between resource topic areas.

BLM and Cooperating Agency Comments on Administrative Final Review EIS

Cmt #	Page #	Row # or Line #	Reviewer Name/ Agency	Comment	A/R/M[1]	Remarks / How Resolved *(Reviewers: Leave this column blank)*
1.	3-55	42	AVC-NVVTG-VVC	ALLOCATING THE 2000 ACRES New language inserted by BLM: "The approach for allocating the 2,000 acres of allowable production and support facilities ~~will~~ would be described in the Detailed Statement of Sale accompanying the Notice of Sale for the first lease sale. Allocations ~~will~~ would be based on the sizes of similar North Slope developments." COMMENT: At the time of the first lease sale prospective development size is not known. Only after exploratory and delineation drilling, several years later, will potential for development be understood. And at that time the lease owner will decide about development concept–which could be either legacy Prudhoe design (sprawling, cheaper, larger footprint, more gravel) or current NPRA design (tighter packed, like offshore platforms, more expensive, smaller footprint, less gravel). This new clarification by BLM does not address how orderly, competitive development of the resource will be assured in the granting of surface acres. If acres are granted too early in the leasing/planning/development process, especially if granted to oversized speculative development plans or to operators unwilling to bear the expense of small cramped pad development, there will be few acres among the 2,000-acre limit left for remaining development.		
2.	S-6	22	AVC-NVVTG-VVC	RECLAIMING THE 2000 ACRES "…until reclaiming land with production and support facilities <u>is determined to be adequate</u>, the acreage of such facilities would continue to count against the 2,000-acre limit. Also, while it is true that once development occurs the land can never be returned to an undisturbed wilderness state, when production and support facilities are removed, and <u>land is fully reclaimed</u> it can once again contain wilderness values." COMMENT: There is no standard referenced or articulated for either "adequate" reclamation or "fully		

[1] A = Comment accepted; R = Comment rejected with explanation; M = Comment-response modified

BLM and Cooperating Agency Comments on Administrative Final Review EIS

Cmt #	Page #	Row # or Line #	Reviewer Name/ Agency	Comment	A/R/M[1]	Remarks / How Resolved *(Reviewers: Leave this column blank)*
				reclaimed" for lands previously covered by gravel. Also, these terms could be in conflict; "adequate" means good enough while "fully reclaimed" points to a higher standard. Without non-subjective clarity on reclamation, especially as the 2000 acres get fully subscribed and developers are looking towards the next round of recycled acreage, BLM cannot assure orderly and competitive development of the resource.		
3.	S-6	38	AVC-NVVTG-VVC	ELEVATED FACILITIES AND THE 2000 ACRES "…Section 20001(c)(3) of PL 115-97, which explicitly includes in the 2,000-acre limit 'piers for support of pipelines.' This demonstrates that Congress intended to count only those portions of elevated pipelines that touch the ground, that is the piers that hold up elevated pipelines. Had Congress intended to include the entire width and length comprising elevated pipelines, in Section 20001(c)(3) it would not have called out only a portion of elevated pipelines—the piers—as applying against the 2,000-acre limit. By extension, the BLM assumes that Congress would have given similar treatment to elevated structures, such as drill pads and processing facilities, had those been specifically addressed in Section 20001(c)(3); however, oil and gas operators no longer commonly use elevated structures on Alaska's North Slope." COMMENT: There is a significant difference between a single elevated arctic pipeline (Figure 1) and an elevated arctic piperack with a dozen or more closely spaced pipelines (Figure 2) or an elevated arctic building with no gravel pad below (Figure 3). A single elevated arctic pipeline is a long linear structure on piers touching the tundra in few places and casting a small line shadow on the tundra below. In contrast, an elevated arctic piperack and an elevated arctic building are both large areal extensive structures on piers touching the tundra and casting long and wide shadows on it. Page S-8 implies a recognition of this phenomenon: "…[T]he 2,000-acre		

[1] A = Comment accepted; R = Comment rejected with explanation; M = Comment-response modified

Cmt #	Page #	Row # or Line #	Reviewer Name/ Agency	Comment	A/R/M[1]	Remarks / How Resolved *(Reviewers: Leave this column blank)*
				limit is not intended apply to lands in the greater disturbance area that experience such indirect impacts from production and support facilities. Instead, the limit applies only to that portion of land comprising the facility footprint: that land experiencing a direct loss of habitat from being covered by the facility." In light of the significant differences, the BLM should not assume by extension that Congress would have treated elevated structures in the same manner as elevated pipelines. To BLM's last point about elevated structures no longer being used on the North Slope—as recently as the Alpine expansion project, extensive elevated base camp buildings and warehouses have been installed well past the edge of the base camp gravel pad directly impacting the tundra below. Figure 1 – single elevated arctic pipeline  Figure 2 – elevated arctic pipeline rack  Figure 3 – elevated arctic buildings with no gravel pad		

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BLM and Cooperating Agency Comments on Administrative Final Review EIS

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4.	S-7	19	AVC-NVVTG-VVC	SNOW AND ICE FACILITIES BLM fails to address the piers that support snow fences which are installed on the tundra to prevent snow drifting on gravel pads and pipeline alignments. Snow fences can be hundreds of feet long and hundreds of feet away from roads and pipelines, so they are separate and distinct facilities with direct impact on the tundra.		
5.	S-8	34	AVC-NVVTG-VVC	TRACKING AND ENFORCEMENT OF FACILITY ACREAGE "BLM authorizations for constructing production and support facilities would contain acreage limits for those facilities." COMMENT: BLM does not say how it will determine "acreage limits" for facilities. If there are no arbitrator and rules, developers could submit the cheapest, most gravel-intensive designs possible, which would tie up the 2000-acre gravel inventory, preventing competitive orderly development of the resource.		
6.	S-8	37	AVC-NVVTG-VVC	TRACKING AND ENFORCEMENT OF FACILITY ACREAGE BLM fails to address gravel footprint creep due to snow clearing and maintenance practices, which can push significant volumes of gravel out of the right of way and onto virgin tundra. BLM proposes to review as-built		

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				information post-construction to verify acreage limits but does not propose a summer monitoring plan to address creep.		
7.	S-9	1	AVC-NVVTG-VVC	TRACKING AND ENFORCEMENT OF FACILITY ACREAGE "…on completion of facility operations, operators must submit for the BLM's approval an abandonment and reclamation plan. The plan must contain steps to ensure ecosystem restoration of the land's previous hydrological, vegetation, and habitat condition. After the BLM determines that completed reclamation under an approved plan is adequate and in compliance with the plan, it would subtract the associated facility acreage from the total cumulative footprint of all production and support facilities that count against the 2,000-acre limit." COMMENT: BLM fails to define "completion of facility operations." This completion could be reached as soon as a defined economic limit is reached for the facility or as late as the last single well remains producing (or suspended for evaluation). In the latter case, the operator is just keeping the "lights on" to defer a significant abandonment expense, thereby preventing efficient recycle of the 2000-acre gravel inventory. In addition, BLM fails to articulate non-subjective criteria for "adequate reclamation" which could occur as early as mere gravel removal or as late as validating through one full growing season that the ecosystem has been restored to the land's previous hydrological, vegetation, and habitat condition.		
8.	S-53	11	AVC-NVVTG-VVC	SPRAWLING NATURE OF DEVELOPMENT NOT DEPICTED "At the leasing stage it is unknown as to where leases will be issued, where exploration will occur, and, if oil and gas resources are discovered in economic quantities, where development would occur.		

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				Accordingly, a spatial depiction could mislead the public into assuming the developments would occur in the depicted areas." COMMENT: The EIS quantifies probable volumes of total hydrocarbons for the lease area, probable areas within the lease area of high, medium and low resource potential, probable acres of gravel mines, probable size and through-put for processing facilities, probable drainage areas for drill sites, etc. A probable spatial depiction of development is merely the stitching together of all the probable elements BLM has already outlined. BLM is applying a dual standard of concern about misleading the public until hydrocarbons are discovered if all the elements can be described but not the composite.		
9.	S-660	9	AVC-NVVTG-VVC	PROPOSED PRODUCTION LEVELS Original comment was that BLM presents only a single hypothetical development scenario consisting of three Anchor fields producing a minimum of 400 MMBO each. Mean and potential maximum production rates are not presented, nor are the mean and maximum number of corresponding Anchor fields. BLM responded that "Production rates in the timeline of this document are limited by the time it takes to construct infrastructure and bring wells on-line as wells as the 2000-acre surface disturbance cap. Total production amounts over the life of the fields in ANWR could easily reach estimates." COMMENT: This response by BLM does not address the concern.		
10.	S-701	5	AVC-NVVTG-VVC	ELECTRICAL POWER LINES "Power will run on VSMs with pipelines so overhead power lines will not be installed." COMMENT: Is this an assumption or a requirement? ROP 33, regarding as-built mapping requirements, envisions overhead powerlines being developed, "Roads, pipelines, and power lines may be represented as line features but must include ancillary data to denote such		

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				data as width and number of pipes. Poles for power lines may be represented as point features." Also, past North Slope practice has been to limit the capacity of power lines, strapped-on pipes, and VSM's to 64 kV and below.		
11.	S-703	13	AVC-NVVTG-VVC	DEPICTING INFRASTRUCTURE DEVELOPMENT "There is not enough information available to accurately predict development locations nor infrastructure at this time." COMMENT: While it is true there is not enough information available at this time to accurately predict exact development locations, a depiction of the nature and scale of development infrastructure and its probable location is possible. The EIS quantifies probable volumes of total hydrocarbons for the lease area, probable areas within the lease area of high, medium and low resource potential, probable acres of gravel mines, probable size and through-put for processing facilities, probable drainage areas for drill sites, etc. A probable spatial depiction of development is merely the stitching together of all the probable elements BLM has already outlined and overlaying it in the identified area of most likely hydrocarbon reserves. The whole point of the RFD is "…to examine a maximum scenario for development to disclose the greatest impacts that might occur…" (S-705 Row 21).		
12.	S-704	16	AVC-NVVTG-VVC	NEPA REVIEW REQUIREMENTS "Instead of the sketch [EIS Anchor Field schematic], geospatial modeling of roads, pipelines, facilities, and disturbance areas associated with full field development should have been presented." BLM responds "At the leasing stage it is unknown as to where leases will be issued, where exploration will occur, and, if oil and gas resources are discovered in economic quantities, where development would occur. Accordingly, a spatial depiction could mislead the public into assuming the developments would occur in the depicted areas."		

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				COMMENT: While it is true there is not enough information available at this time to accurately predict exact development locations, a depiction of the nature and scale of development infrastructure and its probable location is possible. The EIS quantifies probable volumes of total hydrocarbons for the lease area, probable areas within the lease area of high, medium and low resource potential, probable acres of gravel mines, probable size and through-put for processing facilities, probable drainage areas for drill sites, etc. A probable spatial depiction of development is merely the stitching together of all the probable elements BLM has already outlined and overlaying it in the identified area of most likely hydrocarbon reserves.		
13.	S-707	28	AVC-NVVTG-VVC	SERVICE CENTERS In response to the Tribes' comment that the BLM must consider the impact of industrial support centers, the BLM stated "It is unlikely that an industrial support center similar to Deadhorse would be constructed because the projected size of 1002 Area development will not be large enough to support this type of center and because Deadhorse is close enough to provide the required support. Other North Slope developments similar to probable Coastal Plain developments, such as Willow and Point Thomson, have not developed their own industrial support centers." COMMENT: North Slope Oil Field Service Centers include, 1) well service support facilities (eline, slickline, CTU, work over rigs, vac trucks, well service shops, etc.); 2) construction and maintenance equipment rentals (cranes, heaters, lights, front end loaders, etc); 3) valve and specialty turbine maintenance shops, and so on: and 4) base camps to house these specialty workers. All North Slope Oil fields require these services for field development. Point Thompson is a simple gas/condensate field and has only one drill pad and a handful of wells, so		

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				its service needs are small and are combined with base operations. Thus, it is not a representative analogy. Willow has yet to be developed so Conoco's plans for service support have not been decided. Deadhorse is 60 miles to the east and not accessible by gravel road. BLM needs to 1) describe why it believes Deadhorse is close enough to provide economic year-round support, and 2) compare the projected size of development it believes would require a Service Center with the size and number of wells in its multiple Anchor Field scenario.		
14.	S-708	32	AVC-NVVTG-VVC	GAS FLARING BLM responded that "Flaring or venting would only occur in situations where an equipment failure prevents re-injection or there is danger of equipment becoming over-pressurized." COMMENT: All flare systems require pilot gas and a lit flare to be able to reliably flare large volumes of gas when called on. Therefore, BLM needs to be clear that at CPFs a flame will always be visible–just larger during a flaring event.		
15.	S-709	39	AVC-NVVTG-VVC	SERVICE CENTERS The Alaska Department of Natural Resources commented that "One item that seems to be missing in the development scenario is the likely need for extensive support facilities and services necessary for successfully operating an oilfield. This oilfield supply complex (essentially a 'Deadhorse East') would likely include drilling contractors, equipment rental contractors, well testing, fuel storage, drilling mud storage, equipment maintenance facilities, and camp facilities. Additional pad space will be required for these facilities and operations." BLM's response "With a 2,000 acre limit for disturbance, support facilities of this magnitude are likely to be located outside of the Coastal Plain." COMMENT: BLM's response is unsupported. Nothing would prevent the first developer in line for a gravel		

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				allotment from the 2000 total acres from including extra gravel pad needs for a service center.		
16.	S-714	54	AVC-NVVTG-VVC	GRAVEL PAD SIZES "The BLM uses development pad models and facilities based on the smaller footprint in NPR-A as well as CD pads at Alpine and proposals for Plkka and other State of Alaska projects." COMMENT: What would prevent a developer from requesting gravel acres based on the historic larger footprint designs that use proven technology and are more inexpensive?		
17.	S-714	55	AVC-NVVTG-VVC	PROPOSED PRODUCTION LEVELS BLM stated "Within the timeframe of this document, the rate of production is limited by the rate at which wells and other infrastructure can be installed and the 2000 acre disturbance cap. Producing 10 BBO would take much longer and require more infrastructure than producing 1.5 BBO." COMMENT: BLM fails to support this assertion with an actual production rate profile, and corresponding plot of gravel acres consumed, within the timeframe of the document.		
18.	S-368	10, 13	AVC-NVVTG-VVC	BLM has not changed the definition for "Cultural Resource" on page 4 of the Glossary chapter of the Preliminary Final EIS despite BLM saying they changed it in Rows 10 and 13 of the Cultural Resources Response table in Volume 3. Here are some definitions for "cultural resources" from guidance documents for federal agencies that BLM can use to update their definition: BLM (2017) *Handbook of Guidelines and Procedures for Inventory, Evaluation, and Mitigation of Cultural Resources*. Electronic document,		

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				https://www.blm.gov/sites/blm.gov/files/uploads/Programs_Cultural_HeritageandPaleontology_WhatWeManage_Colorado_Handbookrevised03-2017.pdf, accessed July 24, 2019. • Cultural Resource or Cultural Property: "a definite location of human activity, occupation, or use, normally greater than 50 years of age, identifiable through field inventory, historical documentation, or oral evidence. The term includes archaeological, historical, or architectural sites, structures, places, or sites or places with important public and scientific uses, and may include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups (cf. "traditional cultural property"). Cultural resources are concrete, material places and things that are located, classified, ranked, and managed through the system of identifying, protecting, and utilizing for public benefit described in laws, regulations, and the BLM Manuals" (BLM 2017:3). Ball, David, Rosie, Clayburn, Roberta Cordero, Briece Edwards, Valerie Grussing, Janine Ledford, Robert McConnell, Rebekah Monette, Rober Steelquist, Eirik Thorsgard, and Jon Townsend. (2015) *A Guidance Document for Characterizing Tribal Cultural Landscapes*. US Department of the Interior, BOEM, Pacific OCS Region, Camarillo, CA. OCS Study BOEM 2015-047. http://www.boem.gov/2015-047/, accessed July 24, 2019. • Cultural Resources: "broad array of stories, knowledge, people, places, structures, and objects, together with their associated environment, that contribute to the maintenance of cultural identity and/or reveal the historic and contemporary human interactions with an ecosystem" (Ball et al. 2015:28).		

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				US Fish & Wildlife Service (2016) *614 FW 1 Overview of Managing Cultural Resources*. Natural and Cultural Resources Management, Part 614: Cultural Resources Management. Electronic document, https://www.fws.gov/policy/614fw1.html, accessed July 24, 2019. • Cultural Resources. "Cultural resources is a general phrase that describes a wide variety of resources, including, but not limited to, archaeological sites, isolated artifacts, features, records, manuscripts, historical sites, and traditional cultural properties. Cultural resources include: o (1) Archaeological Resources. An archaeological resource is any material remains of past human life or activity more than 100 years old that is of archaeological interest (also see 43 CFR Part 7.3). o (2) Historic Property. Historic property is any significant or important cultural resource, prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places. This includes artifacts, records, and remains that are related to and located within such properties. o (3) Objects of Antiquity. An object of antiquity is any object of historic or archaeological interest protected by the Antiquities Act and 43 CFR Part 3. o (4) Cultural Items. Cultural items are Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony that can reasonably be associated with a Native American Indian tribe, Native Hawaiian, or Alaska native organization, or individual descendants of Native Americans. The Native American Graves Protection and Repatriation Act of 1990 and its implementing regulations define cultural items.		

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				o (5) Traditional Cultural Property. Traditional cultural properties are properties that are associated with the cultural practices, traditions, beliefs, arts, crafts, or social institutions of a living community. These properties are eligible for the National Register (see section 1.6H). o (6) Sacred Sites. A sacred site is any specific, discrete, narrowly delineated location on Federal land that is sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion. A Native American tribe or an individual who is an appropriately authoritative representative of a Native American religion identifies these sites. o (7) Heritage Assets. A heritage asset is a collectible or non-collectible property with intrinsic historic, architectural, cultural, or archeological value. (8) Cultural Landscapes. A cultural landscape is a geographic area (including both cultural and natural resources) associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. It can include historic sites, historic designed landscapes, vernacular landscapes, or ethnographic landscapes."		
19.	S-369	15	AVC-NVVTG-VVC	In their comments on the DEIS, the Tribes stated, "Excluding locations with Indigenous place names is a significant data gap that the BLM must address. For example, one Gwich'in place name in the Program Area is Sallute (Point Collinsion)." In Row 15 of the Cultural Resources Response table in Volume 3, BLM responded: "The alternatives in the EIS were developed in collaboration with cooperating agencies, and through cultural data shared during public and/or government-to-governments meetings. For example. Lease Stipulation 1, is designed in part to protect traditional use areas, camping locations, etc., however, the specific sites are not provided in a map."		

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				BLM's response does not address our comment that the EIS does not include locations with Indigenous places names in the analysis. Appendix L tabulates the cultural resources in the Alaska Heritage Resources Survey (AHRS) and Traditional Land Use Inventory (TLUI). BLM needs to tabulate the known locations with Indigenous place names in the Program Area. The US Army Corps of Engineers was able to tabulate and incorporate place name data into their EIS for the Alaska Stand Alone Pipeline Project; there is no reason BLM cannot include known place name data in this EIS. Failing to include locations with Indigenous place names doesn't meet EIS methodology and scientific accuracy (40 CFR 1502.24) since the regulations state that "Agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements." As the U.S Army (2017:27)* states in regard to EIS methodology and scientific accuracy, "All analyses must use accepted scientific approaches, using an exact, objective, factual, and systematic or methodological basis. Again, the analysis should be objective, systematic, accurate, precise, and consistent." Relying on limited data is not "accurate, precise, and consistent" which raises scientific accuracy concerns. * US Army (2017) *Guide to Environmental Impact Analysis*. Electronic document, https://www.dau.mil/cop/armyesoh/DAU%20Sponsored%20Documents/Guide%20to%20Environmental%20Impact%20Analysis%20-%202017.pdf, accessed January 29, 2019.		
20.	S-872 to S-873	81-83	AVC-NVVTG-VVC	In their comments on the DEIS, the Tribes stated: "[T]he BLM must assess impacts equally to all communities that rely on these migratory animals. This means assessing the twenty-two Alaska communities and		

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				seven Canadian communities reliant on the PCH using the same methods with comparable data. Having equal analyses relies on having comparable data sets. The DEIS, by its own acknowledgement, lacks comparable subsistence data for Arctic Village." In Rows 82 and 83 of the Subsistence Comment Response table in Volume 4, BLM responded, "This leasing EIS utilizes the best available information." The term "best available information" does not appear in the implementing regulations NEPA (40 CFR 1500-1508) or in statute (42 U.S.C. 4321-4347). NEPA regulations do state "The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA (40 CFR 1500.1(b))." BLM (pages 3-248 – 3-249) states repeatedly subsistence data are "limited" for Arctic Village and Venetie. BLM also deleted footnote 43 (page 3-249), which stated "ADFG, the primary repository for subsistence harvest data in Alaska, removed these data from their Community Subsistence Information System due to data quality issues." Upon deleting footnote 43, BLM include the subsistence data with "quality issues" in the agency's analysis. BLM using "limited" subsistence data and subsistence data with "quality issues" does not meet the "information must be of high quality" (40 CFR 1500.1(b)) standard in NEPA. BLM must conduct subsistence "baseline studies" now to inform this EIS process instead of waiting for "on-the-ground activities [requiring] additional NEPA analysis to … determine which baseline studies may be necessary (Preliminary FEIS Vol 4 Subsistence Comment Response Table Rows 82 and 83).		
21.	3-226	23-24	AVC-NVVTG-VVC	The EIS states: "Issuance of oil and gas leases . . . would have no direct impacts on the environment because by itself a lease does not authorize any on the ground oil and		

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				gas activities." This fails to consider the long-term and cumulative impacts of leasing.		
22.	3-227	24	AVC-NVVTG-VVC	The EIS repeatedly uses the term "Native corporations" in reference to ANCSA corporations. This term is legally inaccurate and highly inappropriate. Corporations charted pursuant to the ANCSA are not *native* corporations. They are not charted under tribal law, they are not charted by tribal governments, and they are not owned by tribal governments. ANCSA corporations are not tribes. They are federally charted corporations, incorporated under Alaska state law. The EIS must be revised to correct every instance of "Native corporation" to "ANCSA corporation."		
23.	3-229	37-38	AVC-NVVTG-VVC	Why would the BLM authorize seismic testing in areas of the Program Area that are unavailable to lease sales? Is this out of spite to those opposed to the oil and gas program? What is the utility of this?		
24.	3-230	11-13	AVC-NVVTG-VVC	The EIS states: ". . . associated with several indigenous groups including the Inuit groups (Inupiat in Alaska and Inuvialuit in Canada) as well as the Athabascan group of the Gwich'in people." This statement must be revised as follows: ". . . associated with several indigenous groups, including Inuit (Inupiat in Alaska and Inuvialuit in Canada) and Gwich'in (in both Alaska and Canada)." Athabascans are not a group of the Gwich'in; Gwich'in are a group of Athabascans. Furthermore, the use of the term "as well as" implies that the Gwich'in cultural connection to the Program Area is not as strong as the Inuit connection.		
25.	3-230	14-15	AVC-NVVTG-VVC	The EIS states: "The Kaktovikmiut (i.e., Inupiat of Kaktovik) are the current indigenous inhabitants of the program area." While this statement is true, it serves as a means to undercut the Gwich'in connection to the		

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				Program Area. This statement is unnecessary in this paragraph, and in the EIS's analysis, as physical proximity to an undertaking has no bearing on a tribe's connection to the area or its rights under NEPA/NHPA. *See* 36 C.F.R. § 800.2(c)(2)(ii). An additional statement must be included after this sentence acknowledging the Gwich'ins' (particularly Arctic Village and Venetie) connection to the Program Area, otherwise, this statement is highly misleading and, like the rest of the EIS, implies the Gwich'in connection to the Program Area is secondary and less important.		
26.	3-230	15-24	AVC-NVVTG-VVC	Despite the Tribes providing the BLM with extensive source materials, including ethnographic interview transcripts, the BLM refuses to acknowledge any of these sources as informing its evaluation of impacts to cultural resources. This is not surprising, however, as this section's analysis demonstrates that the BLM did not actually consider any of the information the Tribes provided.		
27.	3-230	28-34	AVC-NVVTG-VVC	The BLM fails to include Indian Sacred Sites, Executive Order No. 13,007, 61 Fed. Reg. 26,771 (May 24, 2019), in its list of laws and EOs relevant to cultural resource management. The BLM is well aware that the Gwich'in view the Program Area as sacred and that this EO is therefore relevant.		
28.	3-232	9	AVC-NVVTG-VVC	The Tribes approve of the BLM's removal of the phrase "by coastal people," as the Gwich'in traditionally and historically traveled, traded, and hunted within the Coastal Plain. These Tent Ring complexes may also indicate Gwich'in trading camps. This must be reflected in the EIS.		
29.	3-232	18-20	AVC-NVVTG-VVC	The BLM has not consulted with the Tribes regarding any DOE evaluations for historic properties within the Program Area, as required by 36 C.F.R. § 800.4(c)-(d); it		

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				is therefore hard to understand how the BLM is making these DOEs.		
30.	3-232	27-28	AVC-NVVTG-VVC	The Tribes have submitted extensive documentation of their traditional and historic use, occupation, and travel with the Coastal Plain. The EIS must reflect this historical fact.		
31.	3-233	3-4	AVC-NVVTG-VVC	Graves cannot be presumed to be Kaktovikmiut, as the Gwich'in historically traveled extensively within the Coastal Plain. This statement must be revised accordingly.		
32.	3-235	23-26	AVC-NVVTG-VVC	The Section 106 process has not involved consultation to identify and document "ethnographic resources" or to apply the adverse effects criteria. This statement that they will be addressed in accordance with the 106 process is false. Since they have not been addressed thus far, the BLM has failed in its obligation to undertake a legally sufficient Section 106 process. The BLM *must* consider the programmatic effects of the leasing program and landscape wide resources, including cultural landscapes, and this analysis must inform the development and selection of alternatives. *See* 36 C.F.R. §§ 800.1(c), 800.6(a). This never happened.		
33.	3-236	2-13	AVC-NVVTG-VVC	Coastal erosion exacerbated by climate change is not the only climate change-caused impact to cultural resources that will occur in the Program Area. The Tribes have identified the PCH itself is a cultural resource as well as a contributing element to the Sacred Place Where Life Begins cultural landscape. As such, climate change impacts (exacerbated by the oil and gas program) will directly impact the PCH and these cultural resources, by changing migratory patterns, access to calving grounds habitat, and availability of food. If the PCH is affected by these, or other climate change-related impacts, the Gwich'in will experience impacts to their cultural resources.		
34.	3-236	15-16	AVC-NVVTG-VVC	The EIS states: "Issuance of oil and gas leases . . . would have no direct impacts on the environment because by itself a lease does not authorize any on the ground oil and		

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				gas activities." This narrow analysis is legally inaccurate. Direct effects to historic properties include those that are long term, farther removed, and cumulative. 36 C.F.R. § 800.5(a)(1). Furthermore, direct effects do not have to physically impact a resource for them to be direct. *See* ACHP, *Court Rules on Definitions; Informs Agencies on Determining Effects* (June 10, 2019), https://www.achp.gov/news/court-rules-definitions-informs-agencies-determining-effects; *National Parks Conservation Association v. Semonite*, 916 F.3d 1075 (D.C. Cir. 2019). The Program Area is *sacred*, therefore, the knowledge that Sacred Place Where Life Beings is being leases is a direct impact on the cultural resource as it is a desecration of a sacred place.		
35.	3-237	40-41	AVC-NVVTG-VVC	This is a significant, fundamental failing of the BLM in the Section 106 process. These resources *must* have been documented and considered at this point in the process. "When a "management plan" commits the agency to a decision regarding the use of resources or the location of a project, the agency has restricted the availability of alternatives to avoid, minimize, or mitigate adverse effects. In other words, the "management planning" constitutes an undertaking with the potential to affect historic properties that must be preceded by Section 106 compliance." ACHP, *When Do Project Planning Activities Trigger a Section 106 Review?* (June 28, 2019), https://www.achp.gov/digital-library-section-106-landing/when-do-project-planning-activities-trigger-section-106-review		
36.	3-238	12-14	AVC-NVVTG-VVC	The fact that the BLM states consultation "*will occur*" demonstrates that the BLM has not fulfilled its Section 106 obligations.		
37.	3-238	9-12	AVC-NVVTG-VVC	The EIS states: "[G]iven the information currently available and the undetermined location and nature of development in the program area, potential impacts on		

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				traditional belief systems/religious practices and other ethnographic cultural resources, such as TCPs and cultural landscapes, particularly for the Gwich'in people, would be adverse, regional, and long term." This statement is deeply disturbing, and should have informed better how the BLM undertook this process. The BLM's acknowledgment of these impacts in light of its continued disregard for them is deeply troubling.		
38.	3-242	12	AVC-NVVTG-VVC	The EIS fails to acknowledge that the PCH itself is a cultural resource as well as a contributing resource to the Sacred Place Where Life Begins cultural landscape. The EIS fails to analyze impacts to the PHC has impacts to cultural resources—this is a significant failure.		
39.	3-243	41	AVC-NVVTG-VVC	The EIS states: "Kaktovik residents are the primary subsistence users of the program area." This is not true. The PCH is the primary subsistence resources for the Gwich'in of Arctic Village and Venetie. That they are located outside of the Program Area does not mean it is any less important or that they are not subsistence users of the program area. The BLM's insistence of marginalizing the Gwich'ins' reliance on the Program Area and the PCH as subsistence (as well as cultural) resources is shameful and a blatant attempt to minimize its analysis of the oil and gas program's impacts on Arctic Village and Venetie.		
40.	3-247	18	AVC-NVVTG-VVC	Arctic Village residents and the Gwich'in do not only "consider" caribou to be their most important substance resource, it *is* their most important subsistence resources. Again, the BLM is attempting to minimize the Gwich'ins' reliance on the PCH and the Program Area in an attempt to avoid taking a hard look at the oil and gas program's impacts on the Tribes.		
41.	3-249	13-14	AVC-NVVTG-VVC	The BLM is well aware of the importance of caribou and the reliance Arctic Village has on the PHC has their primary subsistence resource. The fact that ADF&G does not have complete subsistence data for Arctic Village		

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BLM and Cooperating Agency Comments on Administrative Final Review EIS

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				does not excuse the BLM from analyzing subsistence impacts on the community. The BLM should have, in consultation with the tribes, obtained the data from the community in order to actually develop an informed analysis of the impacts. Simply stating, "we can't find any data, so we don't have to do any analysis" is grossly inappropriate. At a minimum it violates NEPA, as well as the BLM's trust responsibility to the Tribe. The BLM was obligated to procure this data for the EIS.		
42.	3-250	19	AVC-NVVTG-VVC	As with Arctic Village, the BLM was obligated to collect the subsistence data it needed to conduct a thorough and meaningful analysis of subsistence impacts on Venetie. ADF&G's lack of data is not an excuse for the BLM to avoid taking a hard look at these impacts.		
43.	3-252	35	AVC-NVVTG-VVC	These impacts also affect the PCH as a cultural resource.		
44.	3-254	29-30	AVC-NVVTG-VVC	Kaktovik is not the only primary subsistence user of the Program Area. Again, the BLM is attempting to minimize the Gwich'ins' reliance on the PCH and the Program Area in an attempt to avoid taking a hard look at the oil and gas program's impacts on the Tribes.		
45.	3-354	35-36	AVC-NVVTG-VVC	The BLM was obligated to obtain this information in order to undertake a meaningful analysis of the impacts.		
46.	1-2	7-8	AVC-NVVTG-VVC	BLM should delete this statement or specifically explain how the alternatives account for the other purposes of the Refuge. The BLM's assertion that the alternatives were designed to account for all purposes of the Refuge is not supportable in light of the development-focused alternatives that fail to provide meaningful protections for wildlife and other ecological resources.		
47.	1-8	20	AVC-NVVTG-VVC	The BLM should include information about the timeline and delays associated with the translation of the DEIS. Because of the delay in funding, the Tribes were unable to translate the entire DEIS, and the translation of selected sections of the DEIS was not available until March 10, 2018—three days before the DEIS comment deadline.		

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				The Tribes requested that the BLM extend the comment period to provide sufficient time to produce an accurate and understandable translation. The Tribes also informed the BLM that not extending the comment period to provide sufficient time for translation would severely hinder the participation of tribal members and other Gwich'in people who speak Gwich'in as their first and often only language. The BLM ignored the Tribes' requests. By excluding information about delays in funding, the EIS provides an incomplete and misleading account of the translation efforts.		
48.	2-1	16-18	AVC-NVVTG-VVC	The BLM should reconsider its selection of Alternative B as its preferred alternative. Alternative B makes the most acres available for lease and provides the least protection for biological and ecological resources. The BLM's selection of Alternative B reflects its disregard for the concerns raised by the Tribes throughout the NEPA process. The Tribes have raised with the BLM the critical importance of the Coastal Plain to the Porcupine Caribou Herd for calving and post-calving. The Tribes have also explained the significant adverse impacts development in the Coastal Plain would have on the herd and the Tribes. Yet the BLM failed to consider an alternative that provided meaningful protection for the calving and post-calving habitat. Now, the BLM has identified the least protective of these inadequate alternatives as the preferred alternative. Selecting Alternative B sends a clear message that BLM views consultation with the Tribes' as a mere box-checking exercise and has no intention of meaningfully considering the Tribes' comments and concerns. BLM should also reconsider selecting Alternative B, an alternative with no conservation value, in light of the conservation purposes of the Refuge. An oil and gas		

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				leasing program must be consistent with the Refuge's preexisting purposes. Though the Tax Cuts and Jobs Act of 2017 (Tax Act) added the purpose of an oil and gas leasing program, the statute did not prioritize the oil and gas purpose over the existing Refuge purposes. *See* Pub. L. No. 115-97, § 20001(b)(2)(b). Identifying Alternative B as the preferred alternative is antithetical to the Refuge's conservation purposes and reflects BLM's refusal to substantively address the Refuge's other purposes in the development of the oil and gas program.		
49.	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.		
50.	3-305	23-26	AVC-NVVTG-VVC	The BLM should not delete the statement, "Because of the particular spiritual and cultural importance of the coastal plain and PCH calving grounds to the people of Arctic Village and Venetie, any disruption to that herd or contamination or degradation of calving grounds in the program area would have potential sociocultural impacts on the Gwich'in people, in terms of their belief systems and cultural identity." This statement was deleted in response to a comment received from Voice of the Arctic Inupiat during the public comment period, stating "This statement seems to suggest that the Gwich'in people of Arctic Village and Venetie have more of a spiritual and cultural claim to the Coastal Plain than the Kaktovikmiut. VOICE hopes that the BLM will realize the cultural insensitivity of such statements, of which there are many		

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				in the EIS, and work to correct it for the Final EIS. As has been stated ad nauseam elsewhere, the Kaktovikmiut are the actual residents of the Program Area and, as stated in the DEIS, can trace their roots to this area back 14,000 years. You cannot rewrite this history and the primary importance of this land to the people of Kaktovik; it is insulting, irresponsi-ble, and colonialist. The EIS must be based on subjective facts, not objectivity." (S-494 Row 20). In the record, there is extensive published anthropological research demonstrating the Gwich'in people's cultural and historical reliance on the Coastal Plain. The deletion of this statement does not reflect proper reasoned decision-making based on the record before the agency. Instead, BLM's deletion of this statement reflects decision-making based on political pressure.		
51.	3-306	32-34	AVC-NVVTG-VVC	The BLM should explain the statement "Alternatives D1 and D2 would include additional design features meant to address impacts on subsistence resources and users, and more consultation with tribal governments on design features, timing, development methods, and access (see ROP 34 for example)." BLM provides ROP 34 as an example but ROP does not address consultation with tribal governments. ROP 34 provides that "Proposed aircraft use plans would be reviewed by the appropriate Alaska Native or subsistence organization." This should be revised to include tribal governments. When an action will affect a tribe, including impacts on tribal members' subsistence activities, the federal government has an obligation to consult with the tribe on a government-to-government basis. The statement that "more consultation" will occur under some alternatives disregards the sovereign status of tribes, the federal government's obligations to tribes, and the unique relationship between the federal government and tribes.		

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				This statement should be revised to make clear that the amount of government-to-government consultation does not change based on the selected alternative.		
52.	3-308	1-2	AVC-NVVTG-VVC	BLM should not delete the statement "the action alternatives would constitute a disproportionate, adverse impact on the environmental justice communities of Arctic Village and Venetie." BLM deleted this statement in response to comments asking it to clarify its findings, address why other communities were not included in this finding, explain how the finding was consistent with the ANILCA 810 evaluation, and provide mitigation measures consistent with CEQ guidelines. (S-496 Row 23; S-497 Row 26; S-500 Row 35; S-501 Row 36). Rather than address the disproportionate impacts on other communities and provide mitigation measures consistent with CEQ guidance, BLM simply deleted its finding of a disproportionate adverse impact on Arctic Village and Venetie. This deletion disregards the extensive information that the Tribes have provided to the BLM about the importance of caribou to the Tribes and their members. The BLM states that the environmental justice finding was corrected to make it consistent with the ANILCA 810 evaluation. (S-496 Row 23; S-497 Row 26; S-500 Row 35; S-501 Row 36). The environmental justice finding should not be changed to comport with this flawed analysis or the unsupportable conclusion that there will be no significant restriction on subsistence uses for the communities of Arctic Village and Venetie. Instead, the BLM should revise its subsistence analysis and ANILCA 810 evaluation, as the Tribes requested in their comments on the DEIS.		

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				The CEQ's guidance on environmental justice analysis under NEPA directs agencies to undertake the analysis in a manner that recognizes and respects the sovereign status of tribes and the unique relationship between tribes and the federal government. Specifically, the guidance states that "Agencies should seek tribal representation in the process in a manner that is consistent with the government-to-government relationship between the United States and tribal governments, the federal government's trust responsibility to federally-recognized tribes, and any treaty rights." Council on Environmental Quality, Environmental Justice Guidance Under the National Environmental Policy Act 9 (1997). The guidance also states that "Where environments of Indian tribes may be affected, agencies must consider pertinent treaty, statutory, or executive order rights and consult with tribal governments in a manner consistent with the government-to-government relationship." *Id.* at 14. The BLM's environmental justice analysis fails to adhere to this guidance. The BLM's continued failure to meaningfully address concerns raised by the Tribes or incorporate information provided by the Tribes reflects the agency's disregard for the Tribes' sovereign status. The BLM's deletion of a statement about the cultural and spiritual importance of caribou to the people of Arctic Village and Venetie (FEIS at 3-305), in response to a comment received during the public comment period (FEIS S-494), is a telling example of BLM's disregard for the government-to-government relationship in its environmental justice analysis and the overarching NEPA process.		
53.	3-320	25-29	AVC-NVVTG-VVC	BLM should clarify and provide rationale for the statement that "While executive or administrative enabling actions for existing units of the Arctic Refuge		

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				system are still in effect, in the event of a conflict, the provisions of ANILCA and the Alaska Native Claims Settlement Act prevail. As such, there are limits to the applicability of the original Arctic Refuge purposes, especially in relation to the new refuge purpose to establish oil and gas leasing in the Coastal Plain." The BLM should make clear that the Tax Act did not prioritize the oil and gas purpose over the Refuge's preexisting purposes. Though there is tension between the new oil and gas purpose and the preexisting purposes, the oil and gas purpose must be undertaken in a manner that accounts for the Refuge's preexisting purposes. The BLM cannot manufacture conflict to improperly prioritize the oil and gas program. BLM's use of the language "especially in relation to the new refuge purpose to establish oil and gas leasing" suggests that the applicability of the original purposes established in Public Land Order 2214 is somehow particularly limited in relation to the oil and gas purpose. The BLM should clarify and explain why the oil and gas purpose would be treated differently in relation to the original purposes than other purposes established in ANILCA.		
54.	3-348	5-7	AVC-NVVTG-VVC	Instead of pointing readers to another section, the BLM should describe the potential economic impacts associated with the impacts on subsistence activities. Excluding a discussion of the economic dimensions of the impacts on subsistence in Economics subchapter contributes to the subchapter's overemphasis on the potential beneficial economic impacts of oil and gas development and the underrepresentation of the potential adverse economic impacts.		

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55.	3-348	7-8	AVC-NVVTG-VVC	The BLM should remove "likewise" from the beginning of the sentence "Likewise, potential impacts on recreational resources could have impacts on businesses that provide recreational activities in the area." This sentence is immediately preceded by a description of potential impacts on subsistence. The word "likewise" inappropriately comports impacts to subsistence activities with impacts on recreation.		
56.	3-348	10-12	AVC-NVVTG-VVC	The BLM's should include a more detailed description of the impacts to the non-use and passive values of the Coastal Plain, and its other ecosystem services values. Though the BLM recognizes that the ecosystem values of the Coastal Plain would be diminished by oil and gas leasing and development activities, the agency makes no attempt to describe how these values would be diminished or the level of impact on these values.		
57.	3-358	17-23	AVC-NVVTG-VVC	Arctic Village, Venetie, and other communities that depend on the Porcupine Caribou Herd should be included in the discussions on food security and food sharing. Though the BLM acknowledges that Arctic Village and Venetie consider caribou a primary food source, both communities are excluded from the discussions about food security and food sharing.		
58.	3-364 3-368	17-19 13-16	AVC-NVVTG-VVC	The BLM should provide more analysis of the potential public health impacts to the communities outside the program area that harvest migratory species that rely on the program area. In the Public Health subchapter, the few references to communities outside the program area that harvest migratory species are brief and downplay the likely impacts to these communities. The BLM should address the public health impacts associated with adverse impacts to migratory species, including increased stress and anxiety about food security and contamination of wild		

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				foods. The BLM should also address the public health impacts to these communities associated with leasing and development in the Coastal Plain, including stress and fear for their way of life and cultural identity.		
59.	3-370	22-23	AVC-NVVTG-VVC	Throughout the EIS, the BLM refers readers to other EISs for a more complete discussion of potential impacts or effects. Instead, the BLM should fully describe and analyze the impacts in the EIS. Excluding this detailed information from the EIS provides an incomplete and misleading picture of the potential impacts of oil and gas activities.		
60.	S-368	9	AVC-NVVTG-VVC	In response to the Tribes' comment that the Section 106 process has not informed BLM's development, evaluation, and selection of alternatives, the BLM stated that it "considered means to protect all key resources, including cultural resources. A primary component of alternatives development was providing for protection of the area the Gwich'in identify as Iizhik Gwats'an Gwandaii Goodlit through protection of the caribou calving and post-calving areas." The BLM's own development of protections is not a substitute for using the Section 106 process to inform the development, evaluation, and selection of alternatives. Furthermore, the BLM has not provided meaningful protections for calving and post-calving habitat, an issue that the Tribes have repeatedly raised with the BLM.		
61.	S-370	21	AVC-NVVTG-VVC	The Tribes disagree with the BLM's assertion that "All statutory obligations have been met, and will continue to be met through the EIS process." The Tribes have repeatedly raised with the BLM specific instances where it is failing to live up to its obligations under the NHPA and NEPA.		
62.	S-372	27	AVC-NVVTG-VVC	In response to the Tribes' comment that the BLM must analyze previously documented sites as contributing		

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				features to districts and landscapes, the BLM stated that "environmental baseline will be preserved throughout the lease sale process. Any on-the-ground activities will require additional NEPA analysis. At that time, BLM will determine which baseline studies may be necessary." The BLM's response does not address the concern raised in the Tribes' comment, which relates to evaluating existing information, not conducting additional baseline studies.		
63.	3-260	26-31	AVC-NVVTG-VVC	It is good to know that the BLM does not value traditional knowledge. The BLM must do more that acknowledge what the traditional knowledge is, but incorporate it into its analysis. It is patronizing, condescending, and ethnocentric to value "Western" "scientific" observations and analysis over the centuries of observation and analysis by Alaska Natives.		
64.	3-263	20	AVC-NVVTG-VVC	Impacts to subsistence resources would also affect public health (mental and physical) as well as food security and village economies. The BLM's failure to acknowledge this indicates its resistance to taking a hard look at the actual impacts of development on Gwich'in communities.		
65.	3-280	27	AVC-NVVTG-VVC	No one is "enrolled" in an ANCSA corporation. They are not tribes; therefore, it is impossible for anyone to be enrolled in them. People are *shareholders*. These are very different things. This must be revised. The BLM's lack of understanding about the differences between tribes, native corporations, and ANCSA corporates is disappointing.		
66.	3-271	9-11	AVC-NVVTG-VVC	The EIS states: "The Inupiat of Kaktovik (Kaktovikmiut) are the primary users of the program area and have a strong cultural and subsistence ties to the area, considering themselves the stewards of the program area." This statement is grossly inappropriate and either needs to be removed or modified to acknowledge the Gwich'in		

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				peoples' connection to and use of the Program Area. The BLM's attempt to minimize the Gwich'ins' connection to the Program Area and reliance on it and its resources is shameful and an attempt to avoid taking a hard look at the impacts of oil and gas development on Arctic Village and Venetie. This, and other statements like it, are not supported by the record and reflect efforts by the BLM to kowtow to political pressure and censor references to and analysis of impacts on Gwich'in communities. The Tribes have repeatedly provided the BLM with documentation of the connection to and reliance on the Program Area, making its exclusion of the Gwich'in arbitrary and capricious.		
67.	3-271	11-12	AVC-NVVTG-VVC	The EIS states: "Thus, the Inupiat are most likely to experience sociocultural impacts associated with development of the program area." This is false. The Gwich'in of Arctic Village and Venetie will face cataclysmic sociocultural impacts from development within the Program Area. The BLM's refusal to acknowledge this is further evidence of its efforts to suppress any analysis or acknowledgement of these impacts. The BLM's refusal to take a hard look at the sociocultural impacts to the Gwich'in of Arctic Village and Venetie is arbitrary and capricious and indicative of the political agenda driving this analysis.		
68.	3-271	13	AVC-NVVTG-VVC	The Gwich'in will face *direct*, as well as indirect and cumulative, effects from development.		
69.	3-275	4	AVC-NVVTG-VVC	The BLM's contempt for the Gwich'in is further evidenced by the fact that it spends less than a page documenting the history of the Gwich'in, while the BLM spends over 3.5 pages documenting the history of the Inupiaq and Inuvialuit. Additionally, the BLM's discussion of Gwich'in history fails to discuss the Gwich'ins' historic and traditional use of, occupation, and travel through the Coastal Plain, despite the anthropological, historical, and oral tradition sources the Tribes provided to the BLM on		

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				this subject. The BLM's refusal to acknowledge this history is indicative of its broader attempts to minimize the Gwich'ins' connection to and reliance upon the Program Area in an effort to avoid having to take a hard look at development's impact on Arctic Village and Venetie.		
70.	3-279	23	AVC-NVVTG-VVC	Again, the BLM fails to acknowledge how the Gwich'in were semi-nomadic people prior to settlement in the modern-day villages of Arctic Village and Venetie. The BLM also fails to acknowledge the vast historic territory of the Gwich'in, which encompassed the Coastal Plain. This, despite the Tribes repeatedly submitting sources detailing this history to the BLM. The BLM's refusal to acknowledge this history is indicative of its broader attempts to minimize the Gwich'ins' connection to and reliance upon the Program Area in an effort to avoid having to take a hard look at development.		
71.	3-281	2-3	AVC-NVVTG-VVC	The Tribes are not "members" of the Gwich'in Steering Committee. The Gwich'in Steering Committee is not a membership organization or a tribal consortium. This statement must be removed from the EIS.		
72.	3-287	1-14	AVC-NVVTG-VVC	The EIS improperly implies that these beliefs are part of the past, thereby devaluing their importance and relevance today.		
73.	3-289	16-17	AVC-NVVTG-VVC	It is not true that the "majority of sociocultural effects" would affect Kaktovit. Any negative impact to the PCH would devastate the sociocultural systems in Arctic Village and Venetie. The EIS's insistence on downplaying these effects on Arctic Village and Venetie is indicative of the BLM's broader attempts to minimize the Gwich'ins' connection to and reliance upon the Program Area in an effort to avoid having to take a hard look at development.		
74.	3-291	14-16	AVC-NVVTG-VVC	Reduced harvests and increased reliance on store-bought food would mean higher rates of food insecurity, greater public health (physical and mental) impacts, and economic hardship.		

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75.	3-294	17-19	AVC-NVVTG-VVC	Again, the BLM attempts to minimize impacts to Arctic Village and Venetie by insisting that only Kaktovik will be impacted by development. The Program Area is of "particular importance . . . to their cultural identity and subsistence livelihood."		
76.	3-298	4-5	AVC-NVVTG-VVC	Development in the Program Area will not result in "strong local economies" for Arctic Village and Venetie. The EIS must acknowledge that there will be no economic benefit to these communities, and not portray all Native villages as the same. To the contrary, development has the potentially to destroy the local subsistence economies in Arctic Village and Venetie.		

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Enclosure 5

Comments from The Native Village of Venetie Tribal Government, The Arctic Village Council, and The Venetie Village Council
on Leasing Program Draft EIS (March 13, 2019)

Native Village of Venetie Tribal Government
P.O. Box 81080
Venetie, AK 99781
907-849-8165

March 13, 2019

Submitted via Web Portal

Nicole Hayes
Attn: Coastal Plain Oil and Gas Leasing Program EIS
222 West 7th Avenue, Stop #13
Anchorage, Alaska 99513
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Re: Comments of the Native Village of Venetie Tribal Government, the Venetie Village Council, and the Arctic Village Council on the Notice of Availability of the Draft Environmental Impact Statement for the Coastal Plain Oil and Gas Leasing Program and Announcement of Public Subsistence-Related Hearings, 83 Fed. Reg. 67,337 (Dec. 28, 2018).

Dear Ms. Hayes:

Please find attached to this letter the comments of the Native Village of Venetie Tribal Government, the Venetie Village Council, and the Arctic Village Council (collectively "the Tribes") submitted in response to the Bureau of Land Management's ("BLM") notice of availability of the Draft Environmental Impact Statement for the Coastal Plain Oil and Gas Leasing Program ("DEIS").[1] The Tribes are the modern successors of their traditional governments and each is recognized as a sovereign Indian tribe having a government-to-government relationship with the United States.[2]

At the outset, the Tribes wish to reiterate their unequivocal opposition to the BLM's proposed oil and gas leasing program. The Coastal Plain of the Arctic National Wildlife Refuge is one of the most important natural, cultural, and subsistence resources to the Tribes and to all Gwich'in people. This is reflected in the Gwich'in name for the Coastal Plain: Izhik Gwats'an Gwandaii Goodlit, or "the Sacred Place Where Life Begins." Oil and gas development in this area is wholly incompatible with the Gwich'in worldview. The caribou that calve on the Coastal Plain are the primary source of the Tribes' members' subsistence harvests—the keystone species that has made it possible for the Tribes to live within their traditional homelands from pre-contract to the present. Any impacts to those animals, from changes in migration patterns, lower fertility rates, and loss of

[1] *See* Notice of Availability of the Draft Environmental Impact Statement for the Coastal Plain Oil and Gas Leasing Program and Announcement of Public Subsistence-Related Hearings, 83 Fed. Reg. 67,337 (Dec. 28, 2018).
[2] *See* Indian Entities Recognized by and Eligible To Receive Services From the United States Bureau of Indian Affairs, 84 Fed. Reg. 1,200, 1,204–05 (Feb. 1, 2019).

habitat will have significant adverse social, cultural, spiritual, and subsistence impacts on the Tribes and their members.

I. BLM has failed to uphold its trust responsibility to the Tribes.

The BLM, like all federal agencies, owes a trust responsibility to the Tribes. Because of the Tribes' legal status as a Native Nation, the federal government has an obligation to consult with the Tribes on a government-to-government basis when contemplating actions that may affect the Tribes' lands, resources, members, welfare, and rights. Executive Order 13,175 mandates that all executive agencies recognize and respect the Tribes' sovereign status.[3] The order also requires agencies to establish policies and procedures to ensure meaningful and timely consultation with tribes when an action affects tribal interests.[4]

The Tribes have continually expressed their concern about the manner in which the BLM is undertaking the review processes required under the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA). Particularly, the BLM's compressed timeline for completing this environmental impact statement ("EIS") has undermined the integrity of the NEPA process and has created a significant barrier to the Tribes' meaningful participation. The BLM's abbreviated timeline is not consistent with its trust responsibility to the Tribes. Rather, the rushed process represents an indifference to the Tribes who are entitled to consultation in a manner and on a timeline that is respectful of and consistent with their unique sovereign needs and interests. The Tribes have participated in the NEPA process as cooperating agencies and in the Section 106 process as a consulting parties. In response to the Tribes' good faith participation in these processes, the BLM has consistently rebuffed the Tribes' substantive comments and concerns. The DEIS's wholly inadequate analysis of the proposed leasing program's impacts on cultural and subsistence resources reflects the BLM's continued failure to adequately consider and address the Tribes' concerns.

The Tribes appreciate BLM's willingness to fund the translation of the DEIS into written Gwich'in. However, the BLM's efforts did not satisfy its own promises to facilitate the translation or its trust responsibility to the Tribes. Though the BLM continued to work on the DEIS during the partial government shutdown, it did not provide the promised funding for translation.[5] Because of the delay in funding, the Tribes were unable to translate the entire DEIS, and the translation of selected sections of the DEIS was not available until March 10, 2018—three days before the DEIS comment deadline. During the shutdown, the Tribes requested that the BLM extend the comment period to provide sufficient time to produce an accurate and understandable translation. The Tribes also informed the BLM that not extending the comment period to provide sufficient time for translation would severely hinder the participation of tribal members and other Gwich'in people who speak Gwich'in as their first, and often only language. The BLM ignored the Tribes' requests. The BLM's decision to continue to work on the DEIS during the government shutdown—but to

[3] Exec. Order No. 13,175, 65 Fed. Reg. 67,249, 67,249–50 (Nov. 6, 2000) (mandating that agencies "respect Indian tribal self-government and sovereignty" when "formulating and implementing policies" that affect tribal interests).
[4] *Id.* at 67,250.
[5] Elizabeth Harball, *Despite shutdown, Trump administration continues work to begin oil drilling in ANWR*, ALASKA PUBLIC MEDIA (Jan. 4, 2019), https://www.alaskapublic.org/2019/01/04/despite-shutdown-trump-administration-continues-work-to-begin-oil-drilling-in-anwr/.

not provide timely funding for translators or additional time for translation—disenfranchised tribal members and other Gwich'in people from the public comment process. Funding the translation efforts while simultaneously not providing adequate time to translate the DEIS is merely paying lip service to BLM's trust responsibility to the Tribes.

II. BLM has failed to evaluate a reasonable range of alternatives.

NEPA fosters informed decision-making by requiring federal agencies to take a "hard look" at the environmental impacts of a proposed action.[6] An EIS must "provide full and fair discussion of significant environmental impacts" and "inform decision-makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts."[7] The DEIS violates the NEPA by failing to consider a reasonable range of alternatives and failing to take a hard look at the impacts of the proposed action. The DEIS also fails to adequately incorporate the information, analysis, and findings from other statutorily-mandated review processes, such as Section 106 of the NHPA. Because the DEIS "is so inadequate as to preclude meaningful analysis," the BLM must revise the DEIS and prepare a supplemental DEIS.[8]

NEPA requires the BLM to "[r]igorously explore and objectively evaluate all reasonable alternatives."[9] The range of alternatives the BLM presents and evaluates in the DEIS is woefully inadequate. Rather than exploring a reasonable range of alternatives, the BLM presents variations on a single alternative. Though the Tax Cuts and Jobs Act of 2017 (Tax Act) requires that the Secretary of Interior offer at least 400,000 acres for leasing,[10] none of the alternatives in the DEIS would offer less than one million acres. Two of the alternatives would make the entire Program Area available for leasing. And only one alternative would not offer portions of the Coastal Plain for leasing "to protect biological and ecological resources."[11] The different stipulations and required operating procedures applicable under each alternative do not constitute a reasonable range of alternatives. The same, or similar, stipulations and required operating procedures apply to all of the alternatives. Under every alternative, the stipulations and required operating procedures are subject to waiver, exception, or modification by the BLM, further undermining any substantive difference in the alternatives.

All of the alternatives in the DEIS prioritize development over other values, such as ecological, cultural, and subsistence resources. While the Tax Act requires the BLM to offer oil and gas leases, it does not revoke the conservation priorities of the management of the Arctic National Wildlife Refuge. Throughout the NEPA process, the Tribes have raised with the BLM the critical importance of the Coastal Plain to the Porcupine Caribou Herd for calving and post-calving. The Tribes have also explained the significant adverse impacts development in the Coastal Plain would have on the herd and the Tribes. Ignoring these concerns, the BLM has failed to consider an alternative that provides meaningful protections for the Porcupine Caribou Herd's calving and

[6] *W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 486 (9th Cir. 2011).
[7] 40 C.F.R. § 1502.1.
[8] *See id.* § 1502.9(a).
[9] *Id.* § 1502.14(a).
[10] Pub. L. No. 115-97, § 20001(c)(1)(B)(i), 131 Stat. 2054, 2236 (2017).
[11] DEIS at 2-2.

post-calving habitat. BLM has also failed to adequately explain why it didn't consider such an alternative.[12]

Furthermore, the BLM's development, evaluation, and selection of alternatives is inadequate because the DEIS does not incorporate the information, analyses, and findings from other statutorily-mandated review processes, such as Section 106 of the NHPA. The Council for Environmental Quality's (CEQ) NEPA regulations require: "To the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with environmental impact analyses and related surveys and studies required by . . . the [NHPA]."[13]

Pursuant to the Section 106 implementing regulations, federal agencies are required to "ensure that the section 106 process is initiated early in the undertaking's planning, so that a broad range of alternatives may be considered during the planning process for the undertaking."[14] These regulations further require consultation "with the SHPO[] and other consulting parties, including Indian tribes . . . to develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize, or mitigate adverse effects on historic properties."[15] Federal agencies must "consider their section 106 responsibilities as early as possible in the NEPA process, and plan their public participation, analysis, and review in such a way that they can meet the purpose and requirements of both statutes in a timely manner."[16] To that end, the Section 106's implementing regulations require the BLM to consult with tribes and other consulting parties "early in the NEPA process, when the purpose of and need for the proposed action as well as the widest possible range of alternatives are under consideration."[17] Indeed, the CEQ's and the Advisory Council on Historic Preservation's (ACHP) guidance on integrating the NEPA and the NHPA review processes instructs federal agencies to "maximize the opportunity for Section 106 consultations to assist in describing the affected environment and in the development of alternatives for the EIS."[18]

The BLM hosted its alternatives development workshop in July 2018. At the time, the BLM had not conducted a single consultation with the Tribes pursuant to Section 106. At the alternatives workshop, the Tribes raised with the BLM their concerns that the BLM was developing and selecting alternatives without the Section 106 process informing this process. The BLM summarily dismissed the Tribes' concerns. In August 2018, the BLM released the Preliminary DEIS to cooperating agencies, in which the BLM presented the four development alternatives it was evaluating. Again, the BLM had not conducted any consultations with the Tribes pursuant to Section 106. In fact, the BLM held its first, and to-date only, Section 106 meeting on October 25, 2018.

The Section 106 process has not informed the BLM's development, evaluation, and selection of the development alternatives contained in the DEIS, in contravention of the NHPA and its implementing regulations. Furthermore, the DEIS fails to address how the Section 106 process and

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[12] *See* 40 C.F.R. § 1502.14(a) (stating that "for alternatives which were eliminated from detailed study, [agencies shall] briefly discuss the reasons for their having been eliminated").
[13] *Id.* § 1502.25.
[14] 36 C.F.R. § 800.1(c).
[15] *Id.* § 800.6(a).
[16] *Id.* § 800.8(a)(1).
[17] *Id.* § 800.8(a)(2).
[18] CEQ & ACHP, *NEPA and NHPA: A Handbook for Integrating NEPA and Section 106* 27 (Mar. 2013).

future consultations will alter and modify the currently-described alternatives and inform the BLM's selection of the ultimate development scenario.

III. BLM has failed to take a hard look at the impacts of its proposed oil and gas development program.

NEPA requires that the BLM take a hard look at the direct, indirect, and cumulative effects of its proposed action.[19] To meet NEPA's hard look requirement, the BLM must provide a thorough, science-based analysis of the impacts associated with all phases of the proposed oil and gas development program—including exploration, leasing, development, and reclamation. Effects that must be considered include "ecological . . . , aesthetic, historic, cultural, economic, social, [and] health."[20] The BLM falls short of NEPA's hard look standard by using insufficient and inaccurate data; inadequately identifying and mischaracterizing impacts; and failing to incorporate the information, analyses, and findings from the Section 106 process.

NEPA requires high quality information and accurate scientific analysis.[21] When "evaluating reasonably foreseeable significant adverse effects," agencies have an obligation to clearly identify missing and unavailable information.[22] When there is incomplete information "relevant to reasonably foreseeable significant adverse impacts" and that information "is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant," the agency must obtain the information and include it in the EIS.[23] Contrary to these requirements, the BLM relies on limited data and fails to adequately address significant gaps in information. Because the DEIS presents information so incomplete and misleading as to preclude informed decision making, it fails to satisfy the hard look requirement.[24]

In their scoping comments, the Tribes identified significant gaps in information about relative habitat value for caribou and the potential impacts of development on the Porcupine Caribou Herd. The Tribes also alerted the BLM that this information would be necessary to properly evaluate alternatives. But the BLM did not obtain this critical information. Instead, the DEIS relies on an invalid assumption that the Porcupine Caribou Herd will react to development in the Coastal Plain like the Central Arctic Herd has reacted to development in the Prudhoe Bay Oil Field. This is just one example of BLM's failure to adequately address gaps in information; the attached comments provide a detailed discussion of the various deficiencies related to the data in the DEIS.

Rather than provide a "full and fair discussion of significant environmental impacts,"[25] the DEIS downplays and mischaracterizes the impacts of the proposed action. One glaring example is the

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[19] *See Native Ecosystems Council v. Marten*, 883 F.3d 783, 795 (9th Cir. 2018).
[20] 40 C.F.R. § 1508.8.
[21] *Id.* § 1500.1(b).
[22] *Id.* § 1502.22.
[23] *Id.* § 1502.22(a).
[24] *Native Ecosystems Council*, 883 F.3d at 795 ("An agency fails to meet its 'hard look' obligation when it 'rel[ies] on incorrect assumptions or data' in drafting an EIS or presents information that is 'so incomplete or misleading that the decisionmaker and the public could not make an informed comparison of alternatives.'" (alterations in original) (quoting *Native Ecosystems Council v. U.S. Forest Serv., an agency of U.S. Dep't of Agric.*, 418 F.3d 953, 965 (9th Cir. 2005))).
[25] 40 C.F.R. § 1502.1.

BLM's use of the reasonably foreseeable development scenario. As explained in the attached comments, the reasonably foreseeable development scenario is an inadequate and misleading concept that does not accurately reflect the realities of development on the Coastal Plain. Instead, the reasonably foreseeable development scenario obscures the full impacts of development, thereby precluding adequate analysis. Therefore, any impacts analysis based on the BLM's reasonably foreseeable development scenario is inherently flawed.

The BLM's preliminary evaluation under the Alaska National Interest Lands Conservation Act (ANILCA) Section 810 is another example of the flawed analysis found throughout the DEIS. The Tribes have repeatedly raised with the BLM the importance of caribou, particularly the Porcupine Caribou Herd, to the Tribes and their members. Caribou form the backbone of Gwich'in life and culture, providing for the physical, cultural, and spiritual health, well-being, economic security, and food security of the Tribes' members. Perplexingly, the BLM's ANILCA Section 810 evaluation finds that there will be no significant restriction on subsistence uses for the communities of Arctic Village and Venetie. These findings are inconsistent with the information that the Tribes have provided to the BLM and the agency's own statements in other sections of the DEIS.[26] These findings are also premised on BLM's flawed interpretation of subsistence access.

The BLM's ANILCA Section 810 analysis focuses on how development would restrict access to the *places* where subsistence activities occur, rather than analyzing how development would restrict access to the *subsistence resources* themselves. This approach is significantly flawed, as it arbitrarily excludes from the analysis communities such as Arctic Village and Venetie, whose subsistence use areas lie outside the Program Area, but who harvest migratory species that rely on the Program Area. Impacts from development within the Program Area to the Porcupine Caribou Herd and other migratory substance resources will necessarily restrict Arctic Village and Venetie subsistence users' access to those resources. Access to subsistence use *areas* is meaningless if there are no subsistence *resources* to harvest. The BLM's egregious findings in its ANILCA Section 810 evaluation are insupportable even under its flawed construction of access because—as the BLM acknowledges—it lacks adequate harvest data from Arctic Village.[27]

The DEIS also fails to take a hard look at impacts to cultural resources, historic properties, and subsistence because the BLM has failed to conduct its required Section 106 review in a manner consistent with both the NHPA and the ACHP's regulations. Therefore, it has failed to integrate the information, analyses, and findings from the Section 106 process into the NEPA process and the DEIS.

IV. Conclusion

The DEIS fails to evaluate a reasonable range of alternatives, it fails to consider direct, indirect, and cumulative impacts, and fails to take a hard look at impacts to caribou, cultural resources, and

[26] *See* DEIS at 3-165 (stating that "based on existing literature reviews and statements from community members during public scoping and elsewhere, the assumption is that caribou are a resource of primary subsistence, economic, cultural, and spiritual importance for the community of Arctic Village"); *Id.* at 3-166 (stating that "Venetie residents consider caribou to be a primary food source and central to their cultural identity"); *Id.* at 3-167 (stating that caribou are one of the "resources of major importance in Venetie").

[27] *See* DEIS at 3-165 ("Data to calculate resources of importance for Arctic Village are not available, as there have been no comprehensive household harvest surveys in that community.").

subsistence. The BLM has also failed to uphold its trust obligation to the Tribes during the development of this DEIS. The BLM must therefore revise the DEIS and prepare a Supplemental DEIS to address its many significant flaws. The attached comments provide a more detailed review of the fundamental inadequacies of the DEIS and the BLM's NEPA process.

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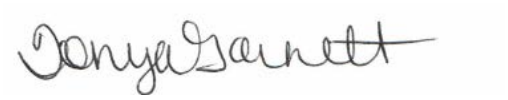

Tonya Garnett
Executive Director
Native Village of Venetie Tribal Government

Enclosures:

Technical Comments of the Native Village of Venetie Tribal Government, the Venetie Village Council, and the Arctic Village Council on the Notice of Availability of the Draft Environmental Impact Statement for the Coastal Plain Oil and Gas Leasing Program and Announcement of Public Subsistence-Related Hearings, 83 Fed. Reg. 67,337 (Dec. 28, 2018).

Technical Comments of

The Native Village of Venetie Tribal Government, The Venetie Village Council, and The Arctic Village Council

On the Notice of Availability of the Draft Environmental Impact Statement for the Coastal Plain Oil and Gas Leasing Program and Announcement of Public Subsistence-Related Hearings.

83 Fed. Reg. 67,337 (Dec. 28, 2018).

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Submitted:

March 13, 2019

I. Cultural Resources Impacts

In declaring the intent of the National Environmental Policy Act (NEPA), Congress directed the "Federal Government to use all practicable means . . . [to] . . . preserve important historic, cultural, and natural aspects of our national heritage."[1] The Bureau of Land Management (BLM) fails to meet this standard by insufficiently describing cultural resources and inadequately addressing impacts to them by failing to: (1) define cultural resources according to NEPA regulations; (2) consider important and relevant data sources; (3) consider all relevant cultural resource laws and executive orders (EO); (4) include Indigenous perspectives in the cultural and historic context; (5) take into account the potential presence and impacts to offshore archaeological resources; (6) include Canadian communities' cultural resources in the Program Area; and (7) thoroughly discuss the characteristics of and the potential impacts to Iizhik Gwats'an Gwandaii Goodlit (the Sacred Place Where Life Begins).

The DEIS defines cultural resources as "the remains of sites, structures, or objects used by humans in the past, historic or prehistoric." (DEIS, at Glossary-4). This definition is confusing and antiquated. It appears to be derived from language in the Antiquities Act of 1906[2] and does not comply with requirements outlined in the NEPA regulations.

When defining cultural resources, the BLM must follow the NEPA regulations that address the "human environment," which is defined as the "natural and physical environment and the relationship of people with that environment."[3] In addition, the NEPA regulations state that the federal agency (in this case, the BLM), needs to consider "[t]he degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, *or may cause loss or destruction of significant scientific, cultural, or historical resources*."[4] As the Council on Environmental Quality (CEQ) and the Advisory Council on Historic Preservation (ACHP) note, the "*or*" is important, because NEPA is an umbrella law that covers a broader spectrum of cultural resources, not just those defined by the National Historic Preservation Act (NHPA).[5]

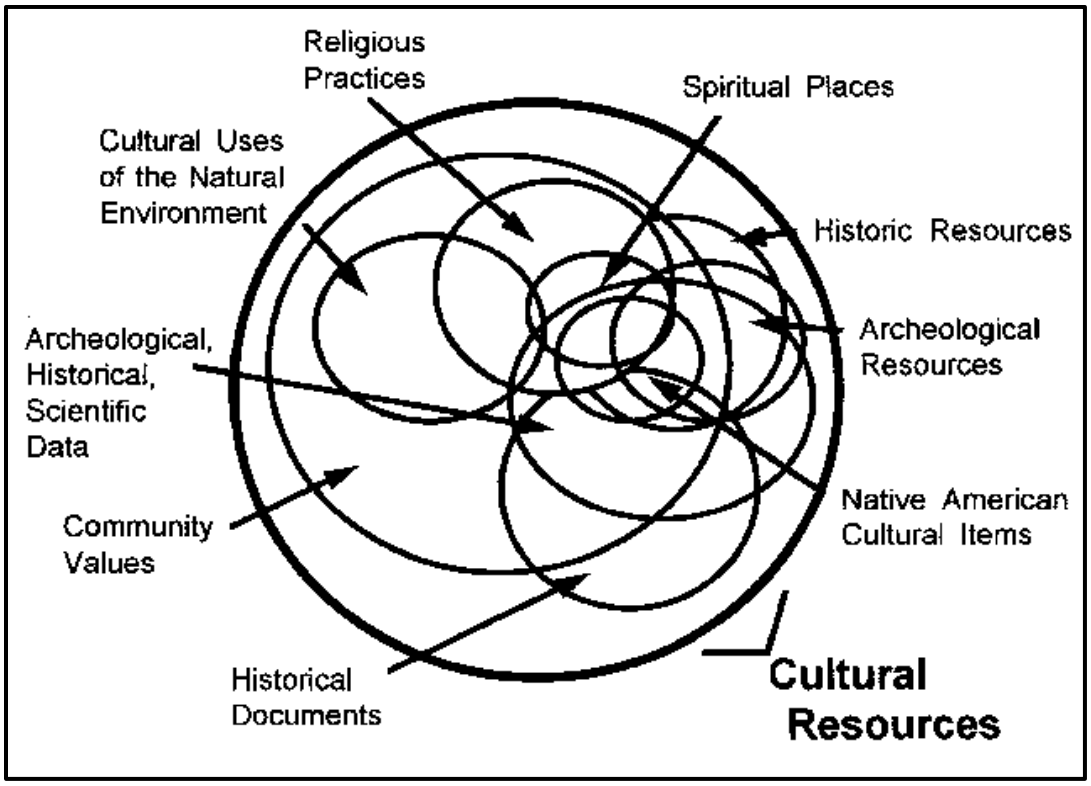
The NEPA regulations do not provide an age or eligibility requirement for "scientific, cultural, or historical resources." "Scientific, cultural, or historical resources" regardless of age may include tangible and intangible heritage, such as cultural uses of the natural environment, religious practices, spiritual places, community values, historical documents, Native American cultural items, and archaeological, historical, and scientific data. (*See* Figure 1).[6] Because the BLM's definition for archaeological resources includes buildings and districts, it is broader than the definition of cultural resources. This is inaccurate and confusing because archaeological resources are a type of cultural resource. (*See* Figure 1). The DEIS defines archaeological resources as:

[1] 42 U.S.C. § 4331(b)(4).
[2] 54 U.S.C. §§ 320301 *et seq.*
[3] 40 C.F.R. § 1508.14.
[4] 40 C.F.R. § 1508.27(b)(8) (emphasis added).
[5] CEQ & ACHP, *NEPA and NHPA: A Handbook for Integrating NEPA and Section 106* 12–13 (2013).
[6] Thomas F. King, *What Should be the "Cultural Resources" Element of an EIA?*, 20 ENVIRONMENTAL IMPACT ASSESSMENT REVIEW 5 (2000).

> places where remnants, such as artifacts, of a past culture survive in a physical context that allows for their interpretation. Archaeological resources can be districts, sites, buildings, structures, or objects and can be prehistoric or historic. (DEIS, at Glossary-1).

This definition for archaeological resources is problematic. BLM should explain how buildings and structures are archaeological resources.

Figure 1. Scope of cultural resources that an EIS should consider.[7]



Because the DEIS improperly defines cultural resources, it relies on limited data sources and inadequately analyzes impacts on such cultural resources.

Relying on insufficient definitions and limited data creates an inaccurate picture that doesn't meet requirements related to EIS methodology and scientific accuracy. The NEPA regulations state: "[a]gencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements."[8] Indeed, in regard to EIS methodology and scientific accuracy, the U.S. Army states: "[a]ll analyses must use accepted scientific approaches, using an exact, objective, factual, and systematic or methodological basis. Again, the analysis should be objective, systematic, accurate, precise, and consistent."[9] Insufficient definitions are not

[7] *Id.*
[8] 40 C.F.R. § 1502.24.
[9] U.S. Army, *Guide to Environmental Impact Analysis* 27 (2017).

"exact, objective, or factual" and therefore raise methodological concerns. Relying on limited data is not "accurate, precise, and consistent" and therefore raises scientific accuracy concerns.

The BLM also fails to follow its own guidance, which states that the BLM "must describe the analytical methodology sufficiently so that the reader can understand how the analysis was conducted and why the particular methodology was used."[10] The BLM has failed in this regard because it has not sufficiently described the impact criteria for assessing impacts to cultural resources. This exacerbates the issues with the BLM's methodology and scientific accuracy. The BLM must clearly define impact intensity, duration, context, geographic extent, and magnitude for cultural resources. The BLM did this in its Final Supplemental EIS for the Alpine Satellite Development Plan for the Proposed Greater Mooses Tooth One Development Project.[11]

The DEIS describes the limited data sources it reviewed in analyzing impacts to cultural resources. (DEIS, at 3-151). These sources are insufficient. BLM must also review Alaska Native Claims Settlement Act (ANCSA) Section 14(h)(1) records. The U.S. Fish and Wildlife's (USFWS) 2015 ANWR Revised Comprehensive Conservation Plan and Final EIS states that there are: "27 parcels totaling 3,284.34 acres [that] have been conveyed as cemetery sites or historical places. Another five parcels (totaling 1,144.31 acres) are selected but not yet conveyed."[12] In addition, the BLM must include locations with Indigenous place names in their cultural resources analysis for this EIS. As the U.S. Army Corps of Engineers stated in its Supplemental EIS for the Alaska Stand Alone Pipeline:

> Indigenous place names are the manifestation of a systematic approach to mapping a group's environment. Place names can provide information about natural and social environments as well as about human populations and their histories. Place names also provide insights into a culture's worldview and its perceptions of features of the environments it inhabits. Place names are a key component for identifying cultural resources in an area, as well as for establishing territorial range and means of travel throughout a traditional territory (Kari 2006).[13]

Excluding locations with Indigenous place names is a significant data gap that the BLM must address. For example, one Gwich'in place name in the Program Area is *Sallute* (Point Collinsion).[14] Furthermore, BLM has not integrated cultural data (e.g., traditional use areas, trails, camping locations) from oral histories and subsistence research into the DEIS's cultural resource analysis.

The BLM also needs to consider Canadian Indigenous communities. Any cultural resource analysis for the Program Area is incomplete without taking into account Canadian Indigenous cultural resources. As the Inuvialuit Game Council (IGC), Wildlife Management Advisory Council

[10] BLM, *National Environmental Policy Act Handbook H-1790-1* 55 (2008).
[11] BLM, *Final Supplemental EIS for the Alpine Satellite Development Plan for the Proposed Greater Mooses Tooth One Development Project* 384 (2014).
[12] USFWS, *Arctic National Wildlife Refuge Revised Comprehensive Conservation Plan and Final EIS*, 4-9 (2015).
[13] USACE, *Final Supplemental EIS for the Alaska Stand Alone Pipeline Project* 3-435 (2018).
[14] Jon Nielson, *Beaufort Sea Study – Historic and Subsistence Site Inventory: A Preliminary Cultural Resource Assessment* (1977).

(North Slope), Wildlife Management Advisory Council (Northwest Territories), and Fisheries Joint Management Committee stated in their scoping comments for this EIS:

> Many Aklavik Inuvialuit tell stories about travelling, watching the weather, safe havens, and changing conditions along the 200 km of coastline from Herschel Island to Kaktovik. There are also many well-known and documented burial places, cabin sites, and other cultural use sites all along this important traditional travel route.[15]

Another significant data gap is the BLM's failure to address submerged cultural resources in the offshore area of the Program Area beyond a single mention in the DEIS. (DEIS, at 3-159). A single, vague mention is inadequate. BLM needs to review, consider, and include the Bureau of Ocean Energy Management's (BOEM) findings and recommendations regarding offshore cultural resources in its 2017-2022 Outer Continental Shelf Oil and Gas Leasing Program Final Programmatic EIS. The BOEM describes the types of submerged cultural resources this way:

> Submerged cultural resources within the Alaska program areas [Beaufort Sea, Chukchi Sea, Cook Inlet] include shipwrecks that date from early exploration and settlement of the Pacific Arctic region by Europeans as early as the mid-18th century. Submerged pre-contact sites dating between 20,000 and 3,000 years before present (B.P.) also could be present within the Alaska program areas, depending on regional landform variation.[16]

In summarizing the potential for offshore archaeological resources in the Beaufort and Chukchi Seas, BOEM stated:

> Some areas near barrier islands or areas protected by shorefast ice would exhibit less gouging and have a greater potential for intact archaeological resources . . . [while] . . . the greatest potential for offshore site preservation is in those areas >70 km (43 mi) offshore and in depths >30 m (98 ft) . . . [although] . . . deleterious effects of sea ice on archaeological sites has less of an impact than previously assumed.[17]

The BLM's proposed leasing program has the potential to impact offshore cultural resources and the agency must address these potential impacts because: (1) the Program Area extends offshore where submerged cultural resources may exist; (2) there are numerous barrier islands in the Program Area and offshore areas around them have greater potential for submerged archaeological resources; and (3) the ability of sea ice to destroy submerged archaeological resources has been overestimated.

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[15] IGC et al., *Submission to the Department of the Interior's "Notice of Intent To Prepare an Environmental Impact Statement for the Coastal Plain Oil and Gas Leasing Program, Alaska" (2018), 83 Federal Register 17562* 4 (2018).
[16] BOEM, *2017-2022 Outer Continental Shelf Oil and Gas Leasing Program Final Programmatic EIS* C-105 (2016).
[17] *Id*. at C-107 to C-108.

In addition to data gaps in the DEIS's cultural resource impact section, there are gaps in the BLM's list and description of applicable cultural resource legislation and EOs. The DEIS states that there are EOs and legislation beyond the NEPA and Section 106 of the NHPA that are "relevant" (DEIS, at 3-151); which is true. Because these EOs and other legislation are "relevant," the BLM must explain *how* they are relevant and the efforts the agency is putting forth to address cultural resources under these other EOs and legislation. As the DEIS reads now, the BLM merely lists "relevant" legislation and EOs without explanation. The BLM must correct these errors of omission.

For example, the BLM needs to demonstrate in the DEIS how the agency is consulting with tribal governments (including the Native Village of Venetie Tribal Government, Arctic Village Council, and Venetie Village Council) through government-to-government consultation to address Indian Sacred Sites under EO 13007.[18] The BLM must also include and explain how it is addressing the Federal Lands Management Policy Act of 1976 (43 U.S.C. §§ 1701-1784), the Religious Freedom Restoration Act (42 U.S.C. 21b), EO 12898 Environmental Justice, and EO 13175 Consultation and Coordination with Indian Tribal Governments in the list of "relevant" cultural resource legislation and EOs.

Another glaring deficiency is the BLM's cursory description of how the agency is coordinating the NEPA and the Section 106 processes:

> The Section 106 process for addressing effects on historic properties is occurring concurrently with the NEPA process and will include the development of a programmatic agreement to address the process for identifying historic properties and resolving potential adverse effects through avoidance, minimization, or mitigation. (DEIS, at 3-157).

This is not sufficient. The BLM must describe in the Cultural Resources section what has occurred in the Section 106 process for its undertakings related to the Program Area. As BLM knows, this is because the agency "should ensure that . . . an EIS and record of decision (ROD) includes appropriate scoping, identification of historic properties, assessment of effects upon them, and consultation leading to resolution of any adverse effects."[19] The CEQ and ACHP provide additional guidance on including information from the Section 106 process in the DEIS:

> The agency should include any information obtained from the Section 106 consultation in the draft EIS sections on affected environment and impacts, subject to the confidentiality provisions of Section 304 of the NHPA. This ensures that determinations regarding which alternatives to advance for detailed analysis and which alternative is selected as the preferred alternative are made with an appropriate awareness of historic preservation concerns.[20]

BLM must include a discussion of its Section 106 activities related to the Program Area and how the Section 106 process is influencing the choice of alternatives in the DEIS.

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[18] BLM, *Handbook (H) 1780-1, Improving and Sustaining BLM-Tribal Relations* IV-14 to IV-17 (2016).
[19] 36 C.F.R. § 800.8(a)(3).
[20] CEQ & ACHP, *supra* at 27.

The Cultural and Historic Context of the DEIS (DEIS, at 3-152) is woefully inadequate and strictly from a Western perspective. Though the Sociocultural Systems section of the DEIS (DEIS, at 3-180 to 3-187) provides some information about Indigenous peoples, this section is essentially an ethnographic timeline that lacks Indigenous perspectives. The BLM must do more than provide a table (DEIS, at Table 3-25) and tell readers to look elsewhere for information about the Cultural and Historic Context. The DEIS must provide rationale for why the BLM has chosen the themes in Table 3-25 and descriptions of these themes.

The BLM provided better developed cultural contexts in its EISs for Point Thompson, NPR-A, and Greater Mooses Tooth projects; albeit these cultural contexts failed to include Indigenous perspectives. The BLM must revise the DEIS to provide a more comprehensive cultural context that includes Indigenous perspectives. For example, the BLM needs to include Gwich'in oral histories about the Program Area as part of the cultural context because it is incomplete without it. Indigenous cultural contexts are equal to Western science perspectives. The BLM should review the use of oral histories throughout the Cultural Resources Affected Environment and Environmental Consequences sections for the U.S. Department of Agriculture's ("USDA") DEIS for the Roca Honda Mine project.[21] There, the USDA clarifies the importance of including Indigenous oral/ethno histories:

> Information from ethnohistories can be paired with other sources of information (such as archaeological or archival) to develop a fuller picture of history than would be possible when taken alone. Ethnohistory is another source of information that helps form a context within which cultural resources are understood and given meaning.[22]

Because the DEIS does not include Indigenous oral histories in the cultural resources section, it presents an incomplete picture of the cultural heritage of the Program Area. BLM must correct this omission.

In the Previously Documented Sites section of the DEIS, BLM states:

> Tent ring complexes, consisting of arrangements of stones used to secure skin tents to the ground, often with associated hearths in and outside the ring; these features are found along river corridors on elevated terraces and likely relate to seasonal caribou hunting by *coastal people*; in some cases, these complexes are near or next to caribou drive lines or fences. (DEIS, at 3-153) (emphasis added).

It is incorrect to assume that tent ring complexes in the Program Area are only affiliated with "coastal people." It is likely many of these tent ring complexes are a result of ancestral Gwich'in people camping while traveling to hunt, trade, and war. Traveling from winter territory in the

[21] USDA, *Draft Environmental Impact Statement for Roca Honda Mine* 296-360 (2013).
[22] *Id*. at 305.

Brooks Range to the spring and summer range of the Coastal Plain would take longer than a day and would necessitate camping.[23]

BLM needs to also make note in the Locations of Previously Documented Sites section of the DEIS that a vast majority of the archaeological sites documented in the Program Area were documented prior to use of global positioning systems (GPS). These sites will therefore need to be relocated prior to any oil and gas exploration activities, including seismic work. Establishing a 500-foot safety buffer around sites based on their current location in the state's Alaska Heritage Resources Survey (AHRS) database will not be an effective mitigation strategy because the actual locations of these sites could be off by up to twenty miles, like some other North Slope sites in the AHRS.

BLM limits its assessment of the impacts to previously documented sites based on the idea that these sites are discrete entities and not part of a larger whole. This misguided concept has resulted in an incomplete analysis because it is likely many of the sites are contributing features to archaeological and historic districts and cultural landscapes. The BLM must correct its faulty reasoning in this DEIS and analyze the previously documented sites as contributing features to districts and landscapes.

It is apparent from the DEIS's Cultural Resources section that the BLM is downplaying the significance of these archaeological sites and other cultural resources to understanding the cultural heritage of the Arctic. The BLM should review the USFWS's findings on the cultural importance of these resources in the first EIS for oil and gas exploration in the Program Area:

> Former surveys focused on very limited geographic areas and, generally, selectively sampled only some of the locales where archeologists expected to find sites, thereby skipping areas assumed to have low site frequencies. This has left large gaps in the data base regarding settlement system and changing land use patterns and the basic chronology of the cultural occupation sequences. Many questions remain unanswered regarding the cultural processes that produced the sequences of human occupations (now represented only in archeological sites), environmental influences on these processes, and the social behavior that resulted from and produced these processes. Even though the previous investigations have been limited in scope and intensity, they have identified over 50 prehistoric and historic sites representing at least 6,000 years of human occupation within ANWR. Research in adjacent areas in north Alaska and Canada clearly indicate that the ANWR study area is within one of the two most probable northern entry routes for the first human inhabitants of the Western Hemisphere from the mainland of Asia. Thus, it can be expected that sites representing at least 12,000 years of human occupation, from Paleoindian times to the present, may be found within the coastal plain study area of ANWR. These sites, both early and recent, could yield data of

[23] Ernest Burch, Jr., *Boundaries and Borders in Early Contact North-Central Alaska*, 35 ARCTIC ANTHROPOLOGY 129 (1998); John Richardson, *Narrative of a Second Expedition to the Shores of the Polar Sea, in the Years 1825, 1826, and 1827* (1828).

> great scientific and cultural value because so little is known of the sequence of human occupations and culturally defined land use patterns for this region.[24]

It is of fundamental importance that the DEIS addresses impacts to Iizhik Gwats'an Gwandaii Goodlit. Indeed, the DEIS acknowledges that:

> In summary, given the information currently available and the undetermined location and nature of development in the program area, potential impacts on traditional belief systems/religious practices and other ethnographic cultural resources, such as TCPs and cultural landscapes, particularly for the Gwich'in people, would be adverse, regional, and long term. (DEIS, at 3-157).

It is unclear why the DEIS first mentions Iizhik Gwats'an Gwandaii Goodlit in the Direct and Indirect Impacts subsection of the Cultural Resource section. (DEIS, at 3-156). As the DEIS acknowledges, Iizhik Gwats'an Gwandaii Goodlit is a known cultural resource: "The Gwich'in people . . . hold the program area as sacred ground." (DEIS, at 3-156). This sentence provides the basics for what constitutes a cultural resource: (1) its location (the Program Area); and (2) its importance (it is sacred ground). The name should also clue the BLM in as to why Iizhik Gwats'an Gwandaii Goodlit is a cultural resource.

The DEIS notes:

> Cultural aspects of the environment are not limited only to discrete locations where physical remains of past human activities are preserved, but they may also include culturally valued places, cultural use of the biophysical environment, such as religious and subsistence uses, and sociocultural attributes, such as social cohesion, social institutions, lifeways, religious practices, and other cultural institutions (National Preservation Institute 2018). (DEIS, at 3-154).

This statement highlights the cultural resources of the region north of the Brooks Range to the Gwich'in and the Inuvialuit. The Gwich'in have always regarded the Coastal Plain as sacred and important. The Program Area is not only a "sacred place" but also a place where Gwich'in traveled, camped, hunted, traded, and worked. Anthropologists and historians have documented in some details the travel of Gwich'in to the North Slope of Alaska (and northern Yukon).[25]

Scoping comments from meetings in Arctic Village and Venetie, Alaska, along with Gwich'in people across United States and Canada, make it clear that the Program Area is "associa[ed] with cultural practices and beliefs of [the] living communit[ies] [of Arctic Village and Venetie] that (a) are rooted in th[ose] communit[ies'] history, and (b) are important in maintaining the continued cultural identity of the communit[ies]."[26] Jewels Gilbert clearly conveyed that the program area is

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[24] USFWS, *Final Environmental Impact Statement and Preliminary Final Regulations: Proposed Oil and Gas Exploration Within the Coastal Plain of the Arctic National Wildlife Refuge, Alaska* S-9 (1983).
[25] John Bockstoce, *The Consumption of Caribou by Whalemen At Herschel Island, Yukon Territory, 1890 to 1908*, 12 ARCTIC AND ALPINE RESEARCH 381 (1980).
[26] Patricia L. Parker & Thomas F. King, *National Register Bulletin: Guidelines for Evaluating and Documenting Traditional Cultural Properties* 1 (rev'd ed. 1998).

a TCP in her scoping comment at the May 24, 2018, scoping hearing in Arctic Village when she testified:

> I'm Neets'ąįį Gwich'in from Vashrąįį K'ǫǫ. We are the caribou people since the beginning of time. Our main diet is caribou. Without the caribou I don't think we will survive. Not just us, other animals and birds, too. The 1002 area is sacred because of the calvings . . . . We want to continue living off of what we have. We will continue to thrive on what we have, which is our traditions, our lands, our ways of life . . . . This is who we are, the lands, animals and everything around us. It's like our other halves. It's like you are destroying part of us. That's what makes us feel drained when we hear about the issue of the 1002 area.[27]

Tonya Garnett, in her testimony at the June 12, 2018, scoping hearing in Venetie also voiced the significance of the TCP that envelopes the Program Area by explaining how the Gwich'in people maintain their cultural identity through the Porcupine Caribou Herd (PCH), which is rooted in the history of her community:

> We speak for those that came before us, and we speak for those that will come after. Our culture is alive and strong. The Porcupine Caribou Herd and the Gwich'in people have lived together since time immemorial. It's our whole identity at stake, our traditions, our culture.[28]

There is certainly more known about the Iizhik Gwats'an Gwandaii Goodlit as a TCP, which the BLM can only learn through government-to-government consultation, consultation as part of the Section 106 process, and through cultural and ethnographic interviews with Elders and knowledge and culture bearers.

The BLM has examined the NEPA scoping comments and conducted background research. Regardless of the limited analysis in the DEIS, the agency has enough information to know that a TCP (or cultural landscape) encompasses the Program Area. The BLM must address Iizhik Gwats'an Gwandaii Goodlit in the Ethnographic Resources subsection of the DEIS as a known cultural resource and properly assess impacts to the Iizhik Gwats'an Gwandaii Goodlit.

Though the DEIS states that there will be "adverse, regional, and long term" impacts, the BLM must also discuss the *kinds* of impacts that may occur as a result of the proposed leasing program. The DEIS defines "the loss of traditional meaning, identity, association, or importance of a resource" and "effects on beliefs and traditional religious practices" as indirect impacts. (DEIS, at 3-156). And the DEIS states that "the presence of development in the program area would constitute a cultural impact on the Gwich'in people." (DEIS, at 3-156). Categorizing the destruction of the Gwich'in culture as merely an indirect impact is absurd, disrespectful, and evidences the BLM's failure and refusal to adequately analyze the impacts of development on Gwich'in cultural resources. Instead, this is a direct impact because the effects of the proposed

[27] BLM, Transcript, *Coastal Plain Oil and Gas Leasing Program EIS Public Scoping Meeting: Arctic Village, Alaska* 49-51 (May 24, 2018).
[28] BLM, Transcript, *Coastal Plain Oil and Gas Leasing Program EIS Public Scoping Meeting: Venetie, Alaska* 84 (June 12, 2018).

leasing program on both the Iizhik Gwats'an Gwandaii Goodlit and the Gwich'in people will "occur at the same time and place" as approval of the leasing program.[29] To repeat the falsehood, "Issuance of oil and gas leases under the directives of Section 20001(c)(1) of PL 115-97 would have no direct impacts on the environment because by itself a lease does not authorize any on the ground oil and gas activities," throughout this DEIS is disingenuous, especially after the BLM has reviewed the scoping comments submitted by the Gwich'in people.

Scoping comments from the communities of Venetie and Arctic Village have made it clear that this NEPA process is impacting them through stress and fear for their way of life and cultural identity. The DEIS must clarify how the BLM will avoid (then minimize, then mitigate) the "adverse, regional, and long term" impacts that will result in the "the loss of traditional meaning, identity, association, or importance of a resource; effects on beliefs and traditional religious practices" for the Gwich'in people.

While the DEIS does reference what can be called Gwich'in "creation stories"—a time before there was time when caribou were people and people were caribou, and at their separation there remains a part of humans in caribou and caribou in people[30]—the DEIS fails to address how oil and gas development will impact Gwich'in culture, identity, spirituality, way of life, and worldview. These stories are compelling, providing important insight into the culture, identity, spirituality, way of life, and worldview of the Gwich'in and their view of caribou (and all animals) as sentient beings.

These stories reveal that Iizhik Gwats'an Gwandaii Goodlit is a cultural landscape of traditional religious and cultural significance to the Gwich'in of Arctic Village and Venetie. The DEIS fails to address how the BLM is taking into account effects to Iizhik Gwats'an Gwandaii Goodlit in the Section 106 process.

Furthermore, the DEIS fails to adequately describe what the BLM means by the terms "important to culture" or "sacred." While the DEIS repeatedly references the importance of PCH and other resources that use the Coastal Plain to the Gwich'in, and references the calving grounds as "sacred," it fails to describe in any meaningful way the significance of these resources to the Gwich'in. Where the DEIS does discuss values, it provides shorthand notes about "culture" instead of engaging in meaningful analysis of the impacts oil and gas development would have on Gwich'in culture and cultural resources.

The DEIS attempts to downplay the impacts to Gwich'in cultural resources by describing the cultural importance of Iizhik Gwats'an Gwandaii Goodlit only in terms of subsistence resources. For example, the DEIS states that "the presence of development in the Program Area would constitute a cultural impact on the Gwich'in people. This is because they believe that development

[29] *See* 40 C.F.R. § 1508.8(a) (providing that effects include "[d]irect effects, which are caused by the action and occur at the same time and place").

[30] Richard Slobodin, *Kuchin*, *in* HANDBOOK OF NORTH AMERICAN INDIANS VOL. 6: THE SUBARCTIC 514-532 (June Helm ed. 1981); Gary P. Kofinas, Ph.D. Dissertation, *The Cost of Power Sharing: Community Involvement in Canadian Porcupine Caribou Co-Management* (1998); Gary P. Kofinas, *Caribou Hunters and Researchers at the Co-Management Interface: Emergent Dilemmas and the Dynamics of Legitimacy in Power Sharing*, ANTHROPOLOGICA 179 (2005).

in the Program Area would harm the caribou and other migratory resources (such as waterfowl) that migrate to the Coastal Plain to give birth." (DEIS, at 3-156). The impacts of development within the Coastal Plain are more than impacts to caribou—it is an assault on the Gwich'in and their sense of self. Nonetheless, the Coastal Plain is the birthing grounds of *many* resources. Moreover, these impacts are associated with a greater view of land and environment, not just a single resource. Contemporary expressions of sacredness have been shown through ceremonies held by the Gwich'in about and on the Coastal Plain.

The DEIS also states that the Gwich'in people have identified the Program Area and adjacent areas of the Coastal Plain as a cultural landscape. (DEIS, at 3-157). The Program Area is not precluded from being a cultural landscape simply because it is also part of a TCP. Indeed, the DEIS defines landscapes as:

> The sum total of the characteristics that distinguish a certain area on the earth's surface from other areas; these characteristics are a result not only of natural forces, but also of human occupancy and use of the land. An area composed of interacting and interconnected patterns of habitats (ecosystems), which are repeated because of geology, landforms, soils, climate, biota, and human influences throughout the area. (DEIS, at Glossary-10).

While this definition touches on the cultural aspect of a landscape, the National Park Service (NPS) provides a clearer definition of cultural landscapes:

> a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person, or exhibiting other cultural or aesthetic values. There are four kinds of non-mutually exclusive types of cultural landscapes: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes.[31]

A review of the definitions for the NPS's four types of cultural landscapes indicates that the Program Area is part of an "ethnographic landscape," which the NPS defines as:

> an area containing a variety of natural and cultural resources that traditionally associated people define as heritage resources. The area may include plant and animal communities, structures, and geographic features, each with their own special local names.[32]

The BLM must provide a thorough discussion on the landscape characteristics and the potential impacts to Iizhik Gwats'an Gwandaii Goodlit.

BLM did not follow its own guidance laid out in its handbook for *Improving and Sustaining BLM-Tribal Relations*, which states that the agency should conduct ethnographic studies early in the

[31] NPS, *Management Policies 2006* 157 (2006); *see also* Charles A. Birnbaum, *Preservation Briefs: Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes* 1 (1994).
[32] NPS, *Management Policies 2006*, *supra* at 157.

planning cycle to address tribal concerns on a broad landscape scale.[33] In developing this DEIS, the BLM has also ignored its own guidance by placing the burden upon the Gwich'in people to identify their own cultural landscape. This is contrary to BLM's guidance that directs the agency not to place the burden of identification on Tribes. [34]

The BLM must review and use the landscape characteristics the NPS has listed in its Cultural Landscapes Inventory Professional Procedures Guide (Table 1) to assess and document the Iizhik Gwats'an Gwandaii Goodlit cultural landscape.

Table 1. Cultural Landscape Characteristics**.** Cultural Landscape Characteristics.[35]

Landscape Characteristic	Landscape Characteristic Definition
Natural Systems and Features	The natural aspects that have influenced the development and physical form of a landscape.
Spatial Organization	The three-dimensional organization of physical forms and visual associations in the landscape, including the articulation of ground, vertical, and overhead planes that define and create spaces.
Land Use	The principal activities in the landscape that have formed, shaped, or organized the landscape as a result of human interaction.
Cultural Traditions	The practices that have influenced the development of the landscape in terms of land use, patterns of land division, building forms, stylistic preferences, and the use of materials.
Cluster Arrangement	The location and patterns of buildings, structures, and associated spaces in the landscape.
Circulation	The spaces, features, and applied material finishes which constitute systems of movement in a landscape.
Topography	The three-dimensional configuration of the landscape surface characterized by features (such as slope and articulation) and orientation (such as elevation and solar aspect).
Vegetation	Deciduous and evergreen trees, shrubs, vines, ground covers and herbaceous plants, and plant communities, whether indigenous or introduced in the landscape.
Buildings and Structures	The elements primarily built for sheltering any form of human activities are buildings; and the functional elements constructed for other purposes than sheltering human activity are structures.

[33] BLM, *BLM Handbook 1780-1*, *supra* at IV-17.
[34] *Id.* at IV-18 (recognizing that "identification of sacred sites and traditional use areas could be burdensome for tribes" and providing that "BLM may require an applicant to contract for ethnographic studies" as part of an EIS process or the agency itself may fund such studies when engaged in resource management plan formulation).
[35] NPS, *Cultural Landscapes Inventory Professional Procedures Guide* 7-6 to 7-10 (2009).

Landscape Characteristic	Landscape Characteristic Definition
Views and Vistas	The prospect afforded by a range of vision in the landscape, conferred by the composition of other landscapes characteristics and associated features.
Constructed Water Features	The built features and elements which utilize water for aesthetic or utilitarian functions in the landscape.
Small-Scale Features	The elements which provide detail and diversity for both functional needs and aesthetic concerns in the landscape.
Archaeological Sites	The location of ruins, traces, or deposited artifacts in the landscape, and are evidenced by the presence of either surface or subsurface features.

While ethnographic research and consultation is needed to "accurately profile values and the cultural context"[36] of the Iizhik Gwats'an Gwandaii Goodlit cultural landscape, there are existing data sources that the BLM can review and use to start consulting with the Gwich'in people about characteristics of the Iizhik Gwats'an Gwandaii Goodlit. These data sources and characteristics are cited and summarized below.

Natural Systems and Features. Natural aspects that have influenced the development and physical form of the Iizhik Gwats'an Gwandaii Goodlit are the ecological features that make the Program Area an ideal place for caribou calving, and the birth and rearing of young from other wildlife species. These ecological features include abundant early-emerging forage plants, coastal mosquito-relief habitat, remnant snowfields, aufeis, mountain ridges, pingos, lakes, ponds, rivers, ground-springs, and the wind. BLM should refer to DEIS Chapter 3.2 Physical Environment and Chapter 3.3 Biological Resources for an introduction to these ecological features. Anna Willow summarizes the cultural significance of natural systems and features as: "the plants and animals, the rocks and minerals, the waters and waterways, and the landscape and ecosystems that contain cultural meanings for the people who use, relate to, and behold them."[37] The Gwich'in people "relate to and behold" the caribou and other wildlife of the Program Area.

Indigenous knowledge of the Gwich'in people that the BLM can document through ethnographic research will provide greater insight as to why these ecological resources are significant. As the NPS cultural landscape definition states, "animal communities" can be part of a cultural landscape. There is no doubt that the PCH and waterfowl who rear their young in the Program Area are "animal communities" and contributing elements of the natural systems and features that make the Iizhik Gwats'an Gwandaii Goodlit a significant cultural landscape. As Dr. Thomas F. King notes in his paper on animals and the National Register of Historic Places, "when dealing with rural landscapes and traditional cultural properties, where animals are likely to be involved in human use or perception of the land, the relevance of animals to National Register eligibility should be

[36] BLM, *BLM Handbook 1780-1*, *supra* at IV-18.
[37] Anna J. Willow, *Culturally Significant Natural Resources: Where Nature and Culture Meet*, *in* A COMPANION TO CULTURAL RESOURCE MANAGEMENT 115 (Thomas F. King ed. 2011).

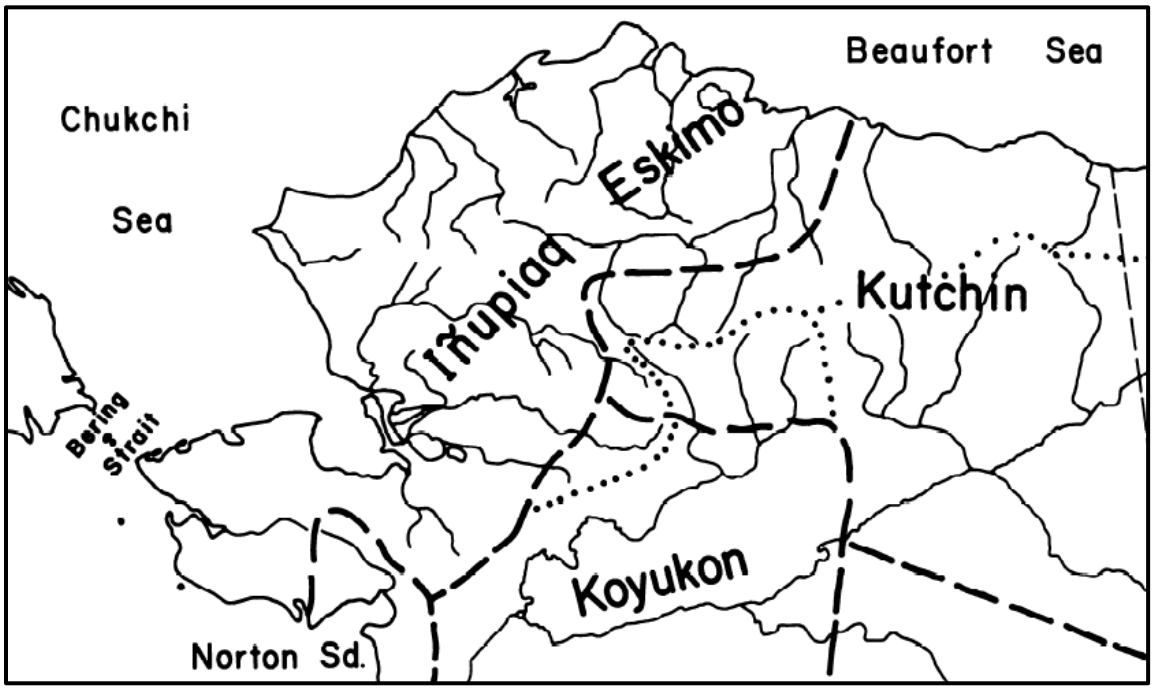
explicitly considered."[38] It's irrefutable that the PCH and waterfowl that use the Program Area are culturally significant to the Gwich'in people's "perception of the land" there.

Land Use. The Inupiat and Gwich'in have used the Program Area since time immemorial. Pete Savolik, an Iñupiaq elder described the shared land use and friendly relationships between the Inupiat, Gwich'in, and Koyukon people prior to warring, this way:

> The Indians and Eskimos lived together along the Arctic slope north of the Brooks Range long ago. They hunting together—they helping each other—Eskimos and Indians. The Eskimos stay around the Arctic slope north from the mountains and around Anaktuvuk Pass and the Colville River. The Indians lived around the Arctic slope not too far from the coast.[39]

Additional research by the ethnographer Ernest "Tiger" Burch, has confirmed Pete Savolik's account of the shared use of the Program Area. (Figure 2).

Figure 2. Indigenous territories, rangers, and language borders prior to 1820.[40]



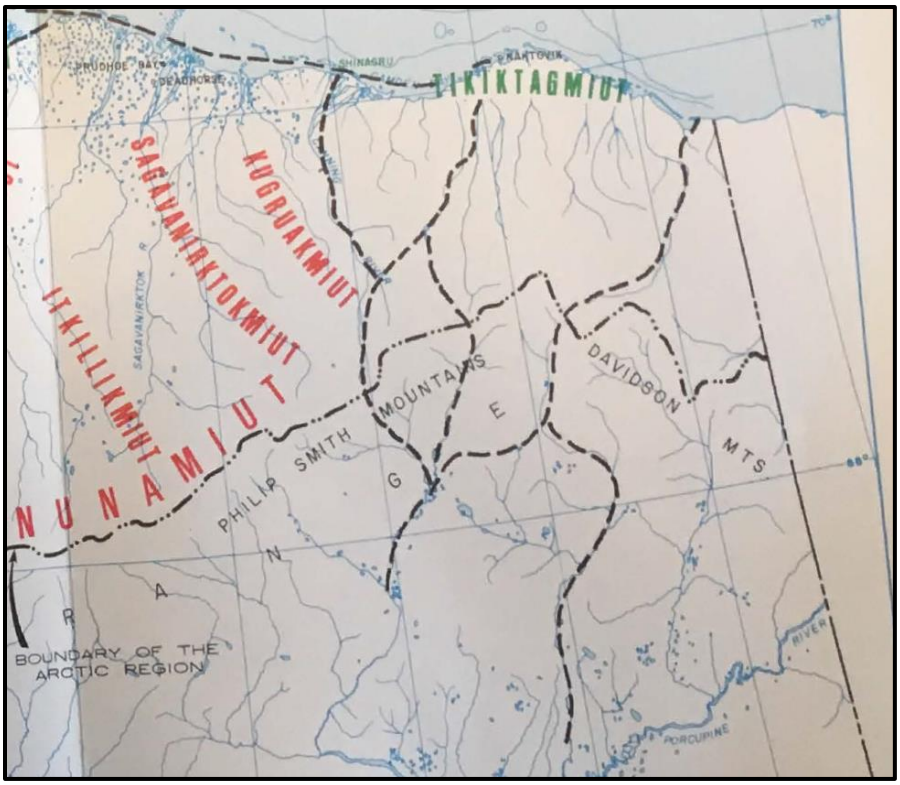
Cultural Traditions. Gwich'in cultural practices have influenced the development of the Iizhik Gwats'an Gwandaii Goodlit in terms of land use, patterns of land division, stylistic preferences, and the use of materials. These include: (1) the cultural identity of the Gwich'in people as the "Caribou People," which is intertwined with the PCH calving areas; (2) ancestral and historical trade with Iñupiat at places along the coast; (3) occasional battles and peaceful conflict resolution

[38] Thomas F. King, *Animals and the United States National Register of Historic Places*, 26 THE APPLIED ANTHROPOLOGIST 129, 134 (2006).
[39] Pete Savolik, *Eskimos and Indians* 1 (1969).
[40] Burch, *supra* at Figure 7.

with Iñupiat; (4) ancestral and historical camping, hunting, and traveling; and (5) avoidance of the area in modern times to reduce the chances of disrupting caribou calving and waterfowl nesting to ensure future successful harvesting and preservation of the Gwich'in culture.

Circulation. Ancestral Gwich'in people followed rivers as travel (i.e., circulation) routes that facilitate travel within the Iizhik Gwats'an Gwandaii Goodlit and connect the landscape with the larger region. Some of these travel routes were used for trade. (Figure 3).

Figure 3. Dashed lines represent trade route between ancestral Gwich'in people and Iñupiat.[41]



Archaeological Sites. The DEIS states that there are eighty-nine AHRS sites and thirty-four Traditional Land Use Inventory ("TLUI") sites recorded in the Program Area, including sites of both prehistoric and historic origin of which many are archaeological sites. Ancestors of the Gwich'in people and Iñupiat created these sites as a result of their shared use of the Program Area. (DEIS, at 3-153). A review of the AHRS shows that many of these sites are along rivers ancestral Gwich'in people followed to access the Program Area. The ancestral Gwich'in derived sites contribute to the significance of the Iizhik Gwats'an Gwandaii Goodlit.

II. Social Impacts

The DEIS describes only the quantifiable effects of impacts to the PCH (i.e., nutritional value, jobs, and hunting). The DEIS fails to adequately analyze impacts on cultural identity, and effects on sense of self, sense of community, sense of efficacy, and psycho-social well-being. There is

[41] Lidia Selkregg, *Alaska Regional Profiles: Arctic Region* (1975).

insufficient discussion of the generations of Gwich'in who have endured centuries of colonialism, which has eroded the Gwich'in's trust in the federal and state governments. Accordingly, the DEIS fails to address historic and intergenerational trauma and further fails to analyze how such trauma will be exacerbated within Gwich'in communities from impacts to the PHC from oil and gas development in the Coastal Plain.

The DEIS fails to address the kinship relationships between the Gwich'in who live on both sides of the United States-Canada border, who travel back and forth regularly, and are related as family. Caribou harvested in Canada by Canadian Gwich'in are shared with Gwich'in in Alaska and vise versa.

The DEIS fails to adequately analyze environmental justice implications of oil and gas development, and how Arctic Village and Venetie will be specifically impacted. The DEIS trivializes the impacts of climate change on Gwich'in communities: "[s]imilar concerns also apply to those who are not on the North Slope but nevertheless depend on its subsistence resources, such as the Gwich'in communities of Arctic Village and Venetie." (DEIS, at 3-195). These are not just "concerns," but real issues. Climate change is already affecting communities of the boreal forest.[42]

The DEIS repeatedly states:

> Issuance of oil and gas leases under the directives of Section 20001(c)(1) of PL 115-97 would have no direct impacts on the environment because by itself a lease does not authorize any on the ground oil and gas activities; however, a lease does grant the lessee certain rights to drill for and extract oil and gas subject to further environmental review and reasonable regulation, including applicable laws, terms, conditions, and stipulations of the lease. The impacts of such future exploration and development activities that may occur because of the issuance of leases are considered potential indirect impacts of leasing. (DEIS, at 3-168).

This is not true. The issuance of leases would cause *significant* psycho-social stress on the people who depend on subsistence resources within the Coastal Plain. Stress in Native communities is well documented, emerging in a number of past events. As recently documented, stresses are also cumulative and intergenerational. The effects of past colonialism along with ongoing threats to the well-being of the Gwich'in could have effects that may be hard to measure, but are nevertheless significant. The issuance of leases would also cause *significant* effects because the Program Area is considered sacred by the Gwich'in. The issuance of leases therefore affects the integrity of location, feeling, and association of Iizhik Gwats'an Gwandaii Goodlit to the Gwich'in.

The DEIS fails to analyze the psychological, cultural, and spiritual effects of contamination; the feeling of loss of something so closely tied to culture. (DEIS, at 3-174). The Coastal Plain is sacred to the Gwich'in; therefore, contaminations, even perceived, within the Program Area would have more than just physical effects. *Any disruption, contamination, or degradation* would have significant impacts on Gwich'in society, culture, economy, spirituality, way of life, subsistence, and public health. (DEIS, at 3-199).

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[42] Gary P. Kofinas et al., *Resilience of Athabascan Subsistence Systems to Interior Alaska's Changing Climate*, 40 CANADIAN JOURNAL OF FOREST RESEARCH 1347 (2010) [hereinafter Kofinas, *Resilience*].

III. Subsistence Impacts

The DEIS fails to adequately describe the impacts of oil and gas development in the Coastal Plain on the subsistence activities and the socio-cultural systems of the Gwich'in, particularly in Arctic Village and Venetie.

This DEIS defines subsistence as "[h]arvesting of plants and wildlife for food, clothing, and shelter. The attainment of most of one's material needs (e.g., food and clothing materials) from wild animals and plants." (DEIS, at Glossary-16). Using this definition, the BLM emphasizes subsistence practices and resources over the *location* where subsistence activities occur. The BLM reiterates the importance of subsistence practices and resources over the specific location of subsistence activities in the opening paragraph of the Subsistence Definition and Relevant Legislation subsection of the DEIS:

> Subsistence is a central aspect of rural life and culture and is the cornerstone of the traditional relationship of the indigenous people with their environment. Residents of the study communities rely on subsistence harvests of plant and animal resources both for nutrition and for their cultural, economic, and social well-being. Activities associated with subsistence—processing, sharing, redistribution networks, cooperative and individual hunting, fishing, and gathering, and ceremonial activities—strengthen community and family social ties, reinforce community and individual cultural identity, and provide a link between contemporary Natives and their ancestors. These activities are guided by traditional knowledge, based on a long-standing relationship with the environment. More than just food, subsistence includes economic, social, cultural/traditional, and nutritional elements. (DEIS, at 3-160).

The DEIS fails to adequately analyze impacts to Neets'ąįį Gwich'in subsistence, because its analysis does not adhere to its own definition of subsistence. The DEIS instead focuses on *where* subsistence occurs in its analysis. The BLM must expand and correct its analysis to assess direct, indirect, and cumulative impacts on the practices and resources of subsistence.

There are certainly place-based impacts that the DEIS must address, but the BLM's reliance on location of subsistence is flawed given that caribou, a keystone subsistence species, and waterfowl are *migratory* animals. Impacts to the animals in one location will affect all of the people who rely on these animals throughout their annual migration routes. Given this, the BLM must assess impacts equally to all communities that rely on these migratory animals. This means assessing the twenty-two Alaska communities and seven Canadian communities reliant on the PCH using the same methods with comparable data. Having equal analyses relies on having comparable data sets. The DEIS, by its own acknowledgement, lacks comparable subsistence data for Arctic Village. (DEIS, at 3-165).

The DEIS's reliance on limited data creates an inaccurate picture that fails to meet requirements for EIS methodology and scientific accuracy. The NEPA regulations state, "[a]gencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in

environmental impact statements."[43] As the U.S. Army states in regard to EIS methodology and scientific accuracy, "[a]ll analyses must use accepted scientific approaches, using an exact, objective, factual, and systematic or methodological basis. Again, the analysis should be objective, systematic, accurate, precise, and consistent."[44] Relying on limited data is not "accurate, precise, and consistent" which raises scientific accuracy concerns.

The DEIS fails to provide an adequate quantitative assessment of the impacts a reduction of the PCH would have on Gwich'in communities. The Gwich'in communities of Arctic Village and Venetie do not have the diversity of subsistence species that North Slope communities have (i.e., marine mammals). Therefore, if the PCH suffer significant losses that affect the subsistence harvest of Arctic Village and Venetie, there are few opportunities for these communities to switch from primarily caribou to other subsistence resources.[45] The loss of caribou in Venetie would result in a 33% reduction (29,925 lbs.) of harvested meat.[46] That loss would be significantly higher in Arctic Village, because residents there rely less on moose and other subsistence resources.[47] Moreover, there is high heterogeneity of households in communities, in terms of their cash income levels, harvesting, and sharing, and consequently their resilience to shocks.[48] Some households report high food insecurity.[49] A reduction in available caribou for harvesting in Arctic Village and Venetie would result in major food security and health hardships for some, if not most, village households.

The BLM's portrait of food insecurity and resiliency differs substantially from reality. The DEIS suggests that communities are infinitely resilient and will not face food security and public health impacts from a decrease in caribou. This conclusion is incorrect, as it fails to acknowledge that there are thresholds that can result in irreversible changes to these social-ecological systems.[50]

The DEIS further suggests that Kaktovik is the primary user of subsistence resources in the Program Area. (DEIS, at 3-161). This statement ignores the ecological reality of migratory species (such as caribou and waterfowl) and the lack of diversity of harvest resources in communities such as Arctic Village.

The DEIS fails to address and incorporate Gwich'in traditional knowledge about the Coastal Plain, the PCH, other migratory species, and subsistence resources. The Gwich'in's understanding that the Coastal Plain is sacred is not only a statement of their spirituality and cosmology, but also a statement based on millennia of observation, understanding, and relating to the resources—their traditional knowledge. Gwich'in traditional knowledge understands the social interactions of caribou, how they communicate, how the herd changes its winter range periodically to maintain the quality of forage in various areas, how they avoid some areas and why, and how weather and

[43] 40 C.F.R. § 1502.24.
[44] U.S. Army, *supra* at 27.
[45] Kofinas et al., *Resilience*, *supra*.
[46] Gary Kofinas et al., *Subsistence Sharing Networks and Cooperation: Kaktovik, Wainwright, and Venetie, Alaska* (2016) [hereinafter Kofinas et al., *Subsistence Sharing*].
[47] *Id.*
[48] *Id.*
[49] *Id.*
[50] S. Craig Gerlach, *Resilience to Rapid Change in Bering, Beaufort, and Chukchi Sea Communities, in* ADAPTATION ACTIONS FOR A CHANGING ARCTIC BERING/CHUKCHI/BEAUFORT REGION REPORT 155-176 (2017).

human behavior have affected caribou and peoples' success in hunting. The Gwich'in's assertions that oil and gas development in the calving and post-calving areas will have negative impacts on caribou are based on traditional knowledge gathered over millennia.

The DEIS fails to recognize that although residents of Arctic Village reside outside the Program Area, they are highly dependent on migratory subsistence resources (i.e., caribou, waterfowl) that make use of the Program Area. (DEIS, at 3-164). Because the Program Area is a sensitive habitat that is integral to the reproductive health of these migratory species, any development in the Program Area would have significant impacts on the subsistence resources available to residents of Arctic Village.

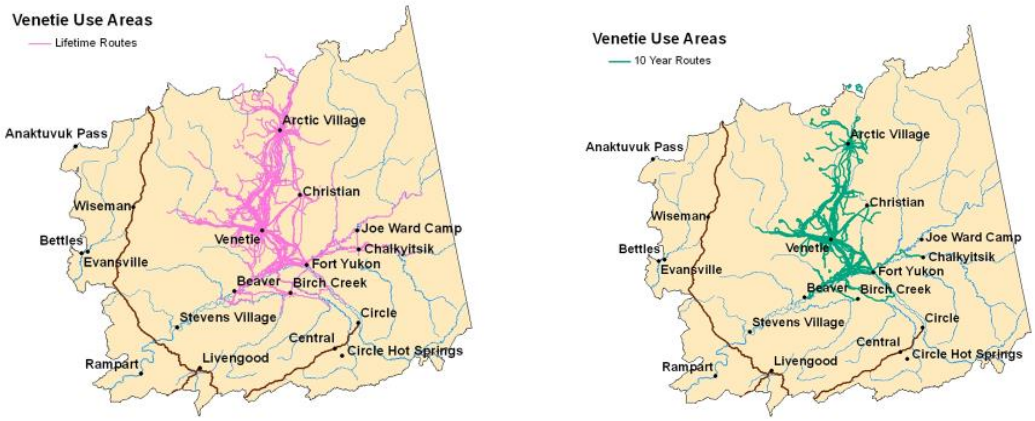
The DEIS's explanation of why there is limited harvest data from Arctic Village is incomplete. The lack of data is a reflection of the community's deep distrust of the state and federal governments, resulting from a long history of lies and broken promises. BLM's refusal to partake in a good faith analysis of subsistence impacts on Gwich'in communities is evidenced by its inadequate explanation of the lack of harvest data, its failure to supplement the available data, and its refusal to hold ANILCA Section 810 subsistence hearings in either Arctic Village or Venetie.

The harvest data the DEIS relies on for Venetie are suspect because of the limited number of reporting households. (DEIS, at M-23 to 26). This seriously undermines the accuracy of the data for all years except 2009, which had a 94% participation rate. The omission of several "super households" in a survey would skew numbers downward in significant ways. The DEIS fails to mention the number of households in the villages, their populations, and their demographics. (DEIS, at 3-164 to 166).

It can be assumed that the harvest of caribou in Arctic Village is higher per capita than that of Venetie, because of the more limited availability of moose (and other resources) in the Arctic Village area. Evidence also shows that resources harvested by these communities is shared with other communities. The dependence on these subsistence resources is not limited to these two villages. This sharing relationship is especially significant between Venetie and Arctic Village, as they are "sister" villages that share ownership of tribal lands and a common tribal government.

The DEIS significantly underrepresents the traditional and contemporary use areas of the Gwich'in of Arctic Village and Venetie. (DEIS, at Map 3-44). This level of misrepresentation of the Gwich'in demonstrates the BLM's fundamental lack of knowledge about the subsistence, cultural, and historic activities and practices of the Gwich'in. The maps below (Figure 4) represent a more accurate depiction of travel between Arctic Village and Venetie.

Figure 4. Lifetime and Ten Year Routes, Venetie Use Areas.[51]



The DEIS states: "[c]ertain households or individuals play a particularly important role in the harvesting of subsistence resources and distribution of those resources to household." (DEIS, at 3-188). This statement does not account for possible thresholds that could dramatically change the social-ecological system of the Gwich'in. The DEIS also recognizes that the "various impacts on subsistence from development can weaken social cohesion over time through reduced participation in subsistence activities, including hunting, processing, and sharing." (DEIS, at 3-175). But then in turn, the DEIS fails to adequately address these impacts.

Further, it is inappropriate for the DEIS to discuss the harvests of both caribou and moose together as "large mammals." (DEIS, at Table M-15). These resources are fundamentally different to the community. The DEIS's treatment of them as the same subsistence resource downplays the importance of caribou to the community.

The BLM's ANILCA 810 preliminary analysis is also flawed and must be corrected. The DEIS states, "Kaktovik and Nuiqsut are the only communities whose subsistence use areas overlap the program area. Thus, they are the only communities that could be legally or physically prohibited from accessing these areas." (DEIS, at E-9). This conclusion is insupportable given BLM's acknowledgement that it lacks comparable harvest data for Arctic Village. (*See* DEIS, at 3-165). The BLM must procure updated subsistence data for Arctic Village and Venetie in order to make this ANILCA 810 analysis defensible. The BLM must hold ANILCA 810 Hearings in Arctic Village and Venetie as a start for collecting the necessary updated subsistence data.

IV. Caribou Impacts

The DEIS fails to adequately represent the PCH and Central Arctic Herd ("CAH") with maps and figures. The DEIS does not provide any maps showing the annual movement of the herds on a range-wide basis. The DEIS fails to provide a detailed breakdown of the full extent of calving, core calving, post-calving, and migration habitats of the PCH and CAH.

[51] Kofinas et al., *Subsistence Sharing*, *supra* at 500.

The DEIS fails to adequately address the general decline in caribou herds across the Arctic. As noted in the recently published Arctic Report Card, Arctic populations of caribou, also known in Eurasia as "wild reindeer" (both *Rangifer tarandus*), have decreased significantly.[52] Overall, there has been a 56% decline (4.7 million to 2.1 million) over the last two decades. In the Alaska-Canada region, there has been a decline of more than 90%, and these populations show no sign of recovery. The CAH is among the herds that have suffered declines. The cause for the declines is not easily explained. Several factors have contributed to the decline of caribou in the Alaska-Canada region include forage availability, macro (worms and ectoparasites) and micro (viruses, bacteria, protozoa) parasites, predation (including human hunting), and climate change (an overarching factor). Several caribou populations in Canada have decreased to historically low levels, leading the Canadian federal government to designate them as "threatened." It is significantly concerning that the DEIS makes little mention of overall decline in caribou herds across the Arctic.

It is common for herds to cycle in their population levels from low to high, although the recent declines in many herds appear to be unprecedented. The PCH is among the few herds that has not dramatically changed in abundance.[53] Historically, the PCH has not had dramatic increases and reductions of population like some other herds (e.g., Western Arctic Herd of Alaska), but has been slow to increase in population during low periods. This pattern of slow increase in abundance indicates that the PCH is not highly resilient to shocks. "Productivity is low for the PCH which suggests the cow and calf's survival will have a disproportionate impact in limiting herd growth or exacerbating herd decline."[54] This point is especially key given the importance of habitat that provides good quality forage and insect relief during post calving.

The DEIS fails to adequately analyze the impacts of development on the PCH, because its analysis is premised on an invalid assumption that the PCH will react to development just as the CAH has. Few caribou herds of the Arctic have had exposure to oil and gas development on the scale proposed by the DEIS.[55] In Canada, caribou herds' exposure to development on the scale proposed in the DEIS has mostly been mineral development. In Russia, the experience has been with gas fields and reindeer herding. The CAH's experience in the Prudhoe Oil Fields is one of the few instances documented where caribou have been exposed to large-scale oil and gas development. The DEIS draws on the CAH's experience to extrapolate what the PCH will experience in the Program Area under the various development scenarios (i.e., DEIS alternatives). The extrapolations of the CAH's experience with development in the Prudhoe Bay Oil Fields to the PCH are invalid, both with respect to herd displacement during calving and in the post-calving period.[56]

First, the geography of the North Slope around the Prudhoe Oil Fields is a broad region that extends to the south. Displacement of caribou during calving in that area has allowed for the CAH to

[52] Don E. Russell et al., *Migratory Tundra Caribou and Wild Reindeer*, *in*, ARCTIC REPORT CARD (2018).
[53] Don E. Russell & Anne Gunn, *Vulnerability analysis of the Porcupine Caribou Herd to potential development of the 1002 lands in the Arctic National Wildlife Refuge, Alaska. Report prepared for: Environment Yukon, Canadian Wildlife Service, and NWT Department of Environment and Natural Resources* (2019). Russell & Gunn represents the kind of in-depth analysis the BLM should have conducted in this DEIS.
[54] *Id.*
[55] Gary Kofinas & Don E. Russell, *North America. Family-Based Reindeer Herding and Hunting Economies, and the Status and Management of Wild Reindeer/Caribou Populations* (2004).
[56] Russell & Gunn, *supra*.

relocate to the south.[57] The 1002 Area of the Coastal Plain is narrower north to south. Displacement of calving habitat in the Program Area based on historical uses would force the PCH to the east and south. To the south are the foothills of the Brooks Range, where there is low forage quality. Many studies have found that caribou select calving and post calving areas where there is high-quality forage.[58] Not being able to access areas of high-quality foraging due to displacement from development will have a negative impact on the reproductive success of the PCH. The greater the displacement, the greater the likelihood of negative impacts on the reproductive success of the herd.[59]

Estimates of displacement (i.e., the hypothetical scenario) in the DEIS are based on limited empirical data. Presumably the data are based on the CAH, which is different in size and in its use of the area than the PCH. As already noted, there is *great* uncertainty about the impacts of new infrastructure on the PCH's use of the calving and post-calving areas.

While the DEIS contains considerable discussion on calving grounds, the DEIS fails to adequately consider the importance of post-calving habitat. It is during the post-calving period that caribou feed, nurse calves, and add fat that allows for ongoing lactation. During post-calving, cows put on the weight needed to have the sufficient fat reserves to conceive the following Fall.

Groupings of CAH caribou during post-calving aggregations are significantly smaller in number than those of the PCH. There is *no basis* for the DEIS to assume that the PCH, which aggregate in much larger numbers during post-calving, will respond to infrastructure during post-calving like the CAH does. The impacts of infrastructure would be far greater than is described in the DEIS.

Finally, because of the nature of PCH migration patterns to and from calving groups, there is significant potential that displacement and interaction with infrastructure could dramatically alter migration patterns. Such changes could have implications to subsistence communities' access to caribou outside of the Coastal Plain.

The DEIS states that "[t]he USFWS (2015a) concluded that, due to the annual variability in the calving area, the PCH needs a large region from which to select the best conditions for calving in a given year." (DEIS, at 3-107). The free movement across a large area is critical to herd fecundity. Conversely, restrictions to movements, such as oil and gas development and the development of related infrastructure, can affect the reproductive success of a herd.

The DEIS fails to include a rigorous analysis of the potential effects to the PCH and its subsistence users. The DEIS's analysis of impacts to caribou is mostly qualitative and is not thorough. Modern-day science methods on impact assessment, cumulative effects, and wildlife ecology have made major advancements in assessing risks and possible impacts to wildlife resources. While all assessments come with uncertainties, there are tools that are valuable for informing policy

[57] Raymond D. Cameron et al., *Redistribution of Calving Caribou in Response to Oil Field Development on the Arctic Slope of Alaska*, 45 ARCTIC 338 (1992).
[58] *See, e.g.*, Brad Griffith et al., *The Porcupine Caribou Herd, in* ARCTIC REFUGE COASTAL PLAIN TERRESTRIAL WILDLIFE RESEARCH SUMMARIES 8-37 (David C. Douglas et al. eds., 2002).
[59] Jack A. Kruse et al., (2004), *Modeling Sustainability of Arctic Communities: An Interdisciplinary Collaboration of Researchers and Local Knowledge Holders*, 7 ECOSYSTEMS 815 (2004).

decisions. The DEIS's analysis of impacts to caribou is deficient because of the absence of any assessment tools (e.g., simulation modeling) or reference to such tools.[60]

One of the findings of the Russell & Gunn (2019) analysis and other research[61] on caribou is that exposure to development, through interactions with infrastructure and/or displacement from sensitive/important habitat, reduces the resilience of the herd, making it more likely that the herd would not rebound from fluxes in population. The loss of herd resilience causes hardship for communities dependent on caribou by reducing or eliminating those subsistence resources. Loss of herd resilience would have significant impacts on Arctic Village and Venetie. These reductions would result in food insecurities, health issues, and a host of other social, cultural, physical, and economic problems. It is difficult to quantify the psycho-social and cultural impacts of such a situation. Nevertheless, significant shortfalls in caribou harvests would result in impacts on Gwich'in society, well-being, and culture. The DEIS fails to provide adequate analysis of such "cascading effects."

The DEIS provides no empirical evidence that the mitigation measures designed to reduce impacts to caribou will be effective. Apart from elevated pipelines, the stated effectiveness of mitigation measures are, at best, speculative. Furthermore, the DEIS states that mitigation measures are subject to waiver, exception, or modification by the managing agency. Yet, the DEIS does not specify the criteria for granting waivers, exceptions, or modifications. The lack of specific guidelines opens the possibility for the BLM to arbitrarily enforce mitigation measures. This seriously undermines the effectiveness of mitigation measures included in the DEIS.

The DEIS fails to account for possible changes in the behavior of caribou that may result from development and increased hunting due to increases in population in Kaktovik. (DEIS, at 3-172). Caribou avoidance of and exposure to development areas can decrease their summer range by 30%. The DEIS also fails to include any discussion of threshold effects, both possible and likely.[62]

The DEIS fails to adequately analyze the cumulative impact of development and climate change on caribou. Climate data show an increase in the number of growing degree days, which may contribute to caribou in positive ways.[63] Data also show an increase of rain-on-snow events, and modeled projections show that icing events are likely to increase in frequency in the future.[64] Icing events have had dramatic negative impacts on herd populations in the range of the PCH and other regions, as documented in studies[65] and traditional knowledge. Such events coupled with development would increase the vulnerabilities of the PCH and, consequently, the vulnerabilities of the people who depend upon it. These consequences could be catastrophic:

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[60] Gary Kofinas et al., *Building Resilience in the Arctic: From Theory to Practice*, *in* ARCTIC RESILIENCE REPORT (M. Carson & G. Peterson eds., 2016).
[61] Sabrina Plante et al., *Human Disturbance Effects and Cumulative Habitat Loss in Endangered Migratory Caribou*, 224 BIOLOGICAL CONSERVATION 129 (2018).
[62] *Id.*
[63] *Fourth National Climate Assessment Vo. II*, NAT'L CLIMATE ASSESSMENT, https://nca2018.globalchange.gov/.
[64] Joel Berger et al., *Climate Degradation and Extreme Icing Events Constrain Life in Cold-Adapted Mammals*, 8 SCIENTIFIC REPORTS 1156 (2018).
[65] Bruce C. Forbes et al., *Sea Ice, Rain-on-Snow and Tundra Reindeer Nomadism in Arctic Russia*, 12 Biology Letters 20160466 (2016).

> [T]he geography of the CAH and PCH seasonal ranges, and the effects of climate differ. For the PCH, the coastal plain is much narrower and alternative calving habitats such as the foothills are available but have less forage, and higher predator densities resulting in reduced calf growth and survival. The PCH compared to the CAH has higher exposure to mosquito harassment. Spring and early Summer forage conditions appear to be more critical to the PCH compared to the CAH, where Fall conditions the previous year correlate best with early calf survival. Thus, the documented displacement of calving in the CAH, if experienced with development in the PCH, would have more significant impacts on calf survival (for the PCH) than occurred in the CAH.[66]

The DEIS's analysis of climate change impacts to caribou is flawed because it limits its discussion of caribou ecology to the Program Area. (DEIS, at 3-168). For example, the DEIS fails to consider changes in the boreal forest, which has the potential to affect caribou abundance and distributions.

The DEIS fails to provide any in-depth inter-annual analysis of herd distribution and movements. Studies show that caribou access to the Program Area is important to the PCH's ability to overcome negative impacts of severe winters. As noted by Russell & Gunn (2019), "[i]f denied access to [the] 1002 due to cows' sensitivity to development, on average, calf survival would be reduced by 9%." Over the course of years, this negative impact, along with others such as icing events, would tip the balance of the PCH's population to cause a significant decline.

The PCH distribution and movements have been documented since the 1970s, well before the use of radio satellite collars.[67] The PCH has also been considered the "most studied" caribou herd in the world, based primarily on interest in development since the early studies.[68] As noted above, caribou select habitat based on environmental conditions. Data show that in some years, the PCH has used the far western portions of the Program Area for calving and post-calving. With climate change affecting environmental conditions in the Arctic, areas used infrequently in the past may become critical use areas in the future. Given the state of rapid direction change in ecosystems across the Arctic, there is significant uncertainty regarding the future habitat needs of the PCH and the CAH. The DEIS must therefore include all distribution and movement data, even if not based on the more modern (radio satellite collars) methods, in its analysis. The DEIS's failure to do so makes its analysis deficient.

The DEIS states:

> The program area is outside the primary range of the Teshekpuk herd, although an estimated 5,000–10,000 caribou of the Teshekpuk herd moved into the northern portion of the Arctic Refuge in the fall of 2003 (Person et al. 2007; USFWS 2015a); that unprecedented movement was highly unusual and has not been repeated. (DEIS, at 3-104).

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[66] Russell and Gunn, *supra* at 5.
[67] Donald E. Russell et al., *Movements and Distribution of the Porcupine Caribou Herd, 1970-1990* (1992).
[68] Olaus J. Murie, *Alaska-Yukon Caribou*, *in* NORTH AMERICAN FAUNA SERIES NO. 54 (1935); Thomas R. Berger, *Northern Frontier, Northern Homeland: The Report of the Mackenzie Valley Pipeline Inquiry* (1977).

This is incorrect. Given the relatively short duration that the distribution and movements of these herds have been monitored, this sentence suggests that in certain environmental conditions the herd selects that area as its habitat. To say it is unusual implies that it is not important. In fact, it may be critical in certain years to the herd's reproductive success. Additionally, the DEIS's discussion on baseline conditions of the CAH is brief, incomplete, and must be elaborated upon. Indeed, the DEIS provides *no* qualitative representation of the frequency in which the western portions of the Coastal Plain are used by the CAH during post calving. (DEIS, at 3-107)

V. Other Impacts

Climate Change. The DEIS misrepresents the rapid change in the Arctic's climate by presenting temperature and precipitation data as monthly averages without including historic data. (DEIS, at Table 3-1). Data and down-scaled global climate models from the Scenarios Network for Alaska and Arctic Planning, at the University of Alaska-Fairbanks, show a very different picture, as demonstrated in figures 5 and 6:

Figure 5. Average Monthly Temperature for Kaktovik, Alaska.

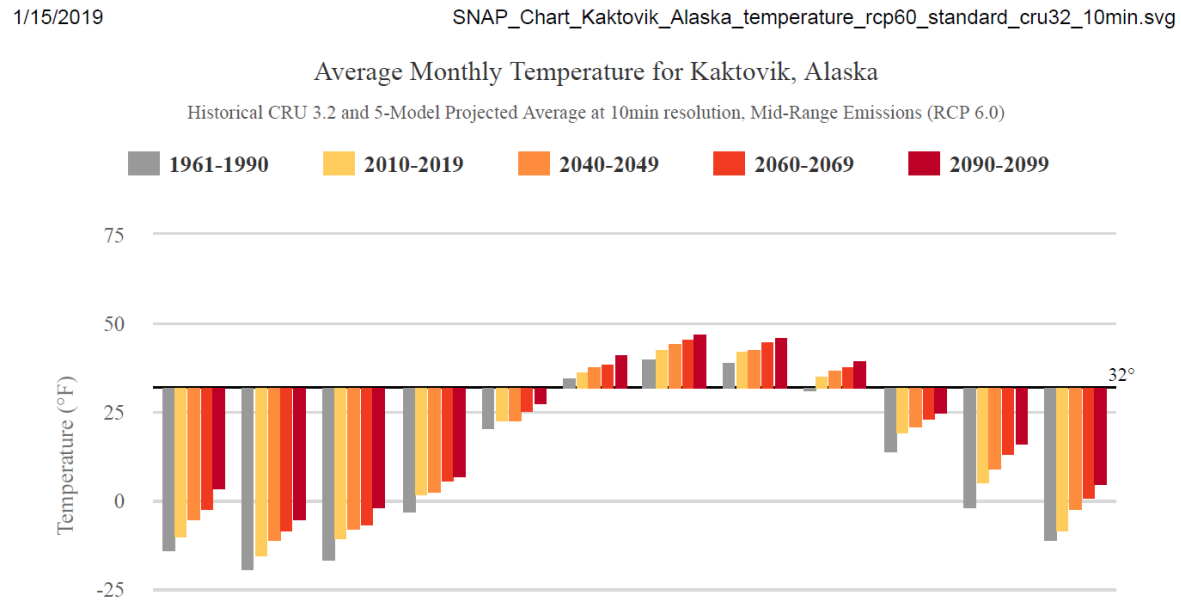
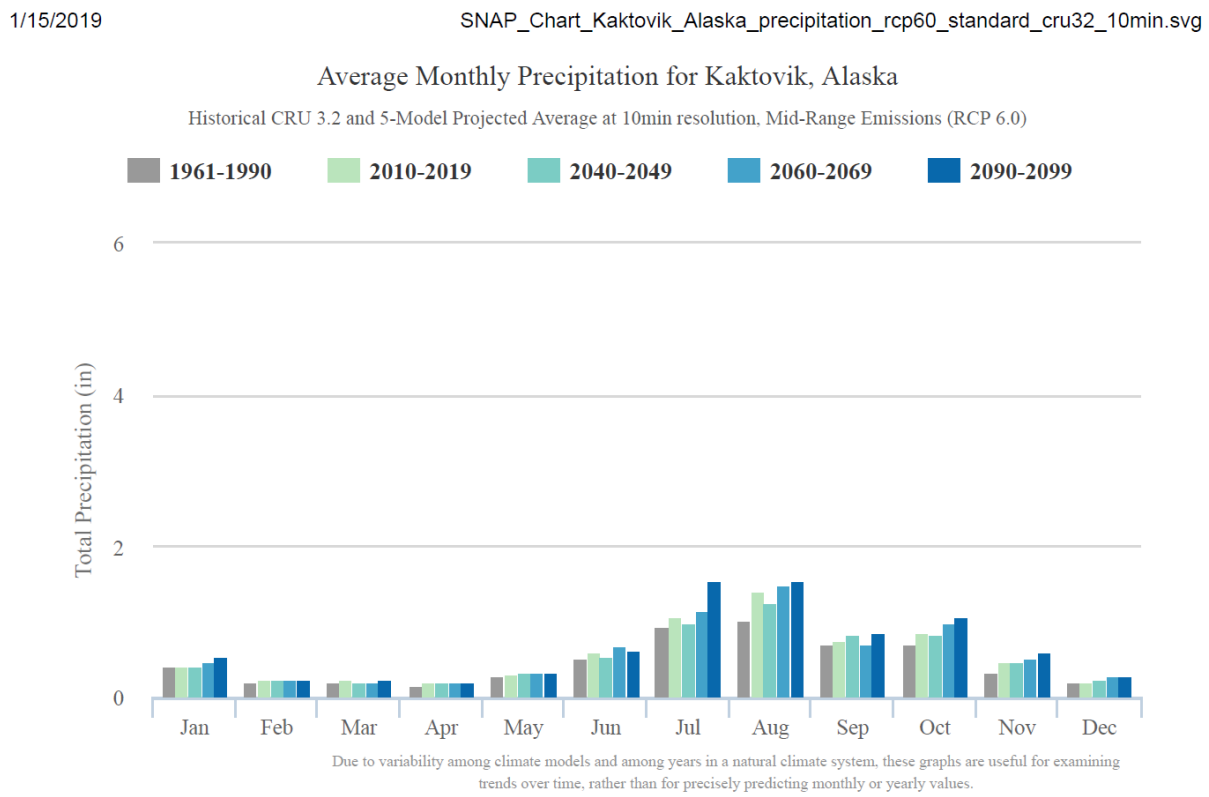


Figure 6. Average Monthly Precipitation for Kaktovik, Alaska.



The DEIS must accurately represent and consider these historical and projected future changes. Additionally, the DEIS fails to cite more current available sources, which provide more up-to-date information.[69] (DEIS, at 3-9).

Seismic Surveys. The Program Area contains a number of physiographic features that are distinct from more western portions of the North Slope. These distinctions (i.e., rougher terrain, more wind, less snow cover) have significant implications for seismic activities in the Program Area.

The experience of 3-D seismic surveys in the areas to the west of the Arctic National Wildlife Refuge are not comparable to the Program Area.[70] It is inappropriate to compare the impacts of seismic activities in the Program Area with those to the west. (DEIS, at 3-71). Seismic surveys may also alter plant communities and hydrology, thus altering forage quality for caribou. (DEIS, at 3-110 to 112). It is unclear why these issues are not addressed in the DEIS. The DEIS must address these issues.

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[69] *See, e.g.*, Intergovernmental Panel on Climate Change, *Global Warming of 1.5°C: An IPCC Special Report on the Impacts of Global Warming of 1.5°C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty* 32 (2018).

[70] D. A. Walker et al., *Likely Impacts of Proposed 3D-Seismic Surveys to the Terrain, Permafrost, Hydrology, and Vegetation in the 1002 Area, Arctic National Wildlife Refuge, Alaska* (2019).

Monitoring. The DEIS should consider adaptive management related to planning and construction of ice roads.[71] The absence of lakes in the Program Area raises the question of where the tremendous water quantities will be obtained to build the ice roads needed for exploration and development. The DEIS fails to adequately address this issues.

The DEIS's discussion of recommended monitoring programs for air quality and contamination in subsistence foods is inadequate. (DEIS, at 2-18 to 19, 3-174). The DEIS should consider an adaptive management program for management of development and wildlife. As structured, the DEIS sets the trajectory with limited opportunities to modify development later. This increases the risks associated with development.

VI. Hydrocarbon Resource Volumes and Production Levels

Resource Size. The DEIS states that the mean estimate of technically recoverable oil in the 1002 area and adjacent state waters and Native Lands is 10.35 BBO and that 90%, or 9.2 BBO, would be economically recoverable at $70 per barrel in today's dollars. (DEIS, at B-1). Moreover, the DEIS states that oil prices are expected to rise over the next twenty years, indicating that potentially more oil will be recoverable in these areas. (DEIS, at B-1). In 1998, the U.S. Geological Survey's (USGS) 1002 Area Petroleum Assessment reported that at a price of $30 per barrel an estimated 3 to 10.4 BBO would be economically recoverable.[72] The DEIS also states that a more recent study shows a mean estimate of 3.4 BBO of economically recoverable oil on the Coastal Plain produced by 2050. (DEIS, at B-1). Due to uncertainties in market forces, the size and number of fields, and the timing of development, the DEIS also estimates that production in the Coastal Plain could be anywhere from 1.5 to 10 BBO. (DEIS, at B-18).

To come up with these estimates, assumptions are required about: (1) geology and hydrocarbon presence which are unknown at this point pre-exploration; (2) development costs which can be assumed based on North Slope experience; and (3) taxation regime, regulatory climate, and oil price/demand over the next half-century or more; all of which are uncertain and unknowable. The wide range of values is indicative of this. Each estimated data point should be given broad confidence intervals to reflect the significant uncertainties about the resource.

Proposed Production Levels. The DEIS states:

> To minimize the chance that the resultant impact analysis will understate potential impacts, the hypothetical scenarios described in this document represent optimistic high-production, successful discovery and development scenarios in a situation of favorable market prices. (DEIS, at B-2).

Despite this assertion, the DEIS fails to present an optimistic high-production development scenario. The BLM proposes a single Hypothetical Development Scenario composed of up to three Anchor Fields with a minimum of 400 MMBO economically recoverable oil each. This totals a

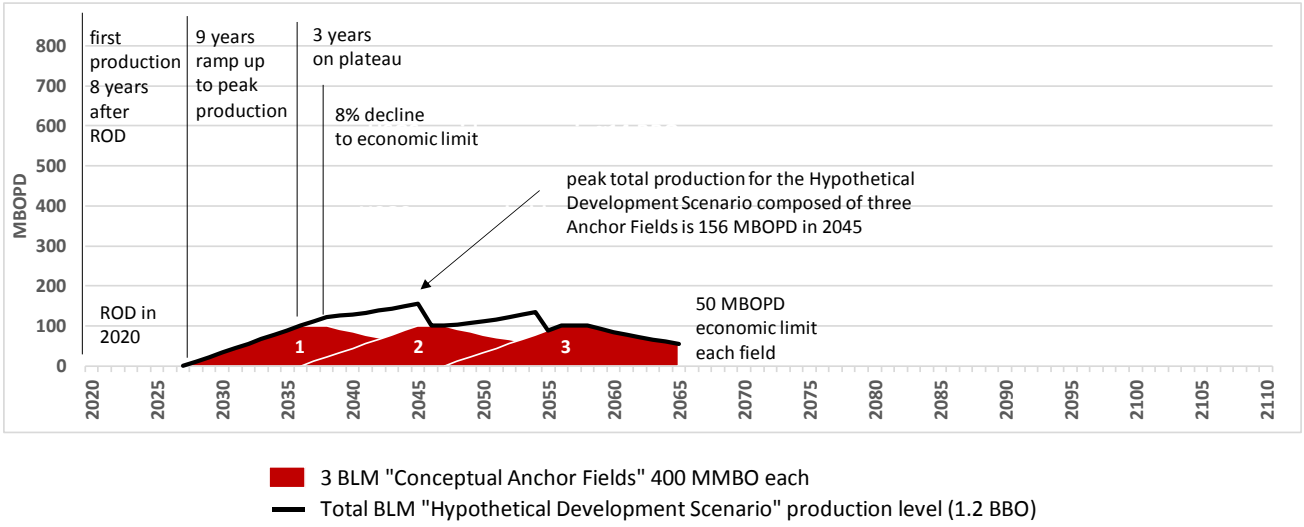
[71] *See* Christopher D. Arp et al., *Ice Roads Through Lake-Rich Arctic Watersheds: Integrating Climate Uncertainty and Freshwater Habitat Responses into Adaptive Managemen*t (2019).
[72] USGS, *Arctic National Wildlife Refuge, 1002 Area, Petroleum Assessment, Including Economic Analysi*s, Fact Sheet 0028-01 (1998).

minimum of 1.2 BBO for the Hypothetical Development Scenario. The BLM's Hypothetical Development Scenario fails to reach even half of the lowest reported value of mean economic reserves as estimated by the U.S. Energy Information Administration (EIA).[73] Moreover, the BLM fails to propose a mean or upside Hypothetical Development Scenarios in line with reported reserves in order to meet its stated goal of representing optimistic high-production development.

Possible Production Levels. The DEIS assumes that approximately eight years after its Record of Decision (ROD), production from the first Anchor Field would begin and then ramp up over a minimum of nine years to a peak of 100 MBOPD which would hold for three years before declining at a rate of 8% per year to the economic limit. (DEIS, at B-8, B-11). Based on this scenario and with an estimated 50 MBOPD economic limit, the sum of production over the life of the Anchor Field is approximately 400 MMBO.

By staggering development of the two subsequent Anchor Fields to begin when drilling ends for the previous one, peak production for the BLM's Hypothetical Development Scenario for all fields increases to 156 MBOPD in 2045. (*See* Figure 7).

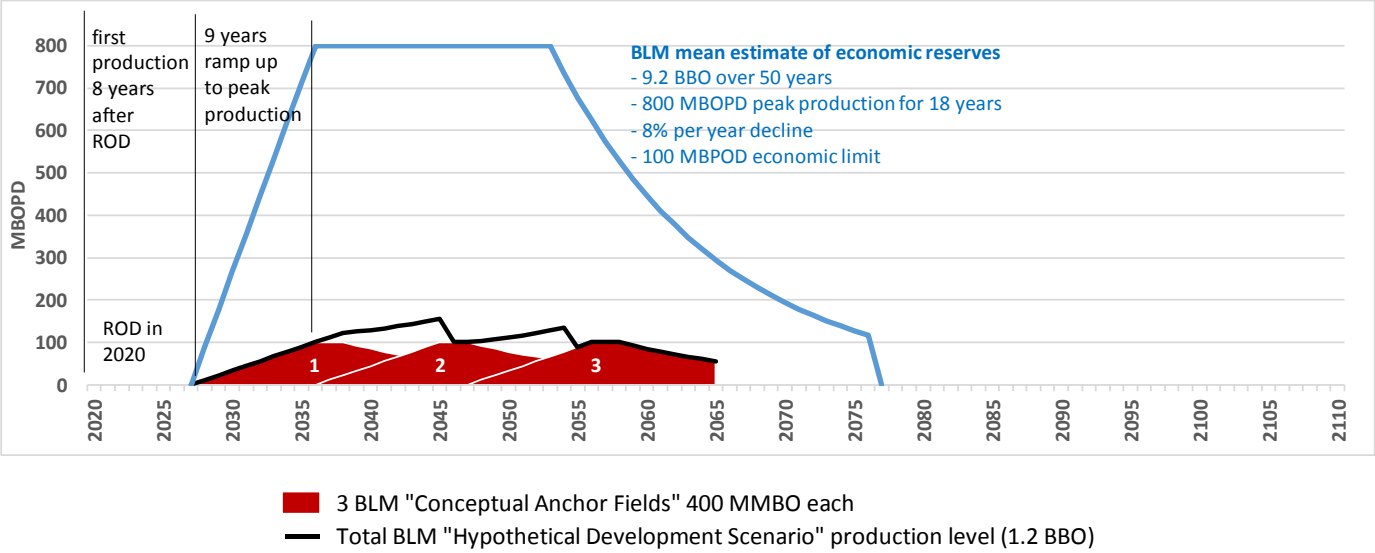
Figure 7. Production level for the BLM's Hypothetical Development Scenario composed of three Anchor Fields.



To calculate peak production for USGS's mean estimate of 9.2 BBO economically recoverable reserves a single field was modeled with the same timing, drilling, and decline assumptions as above but with a total field life of fifty years. (*See* comparison in Figure 8). This demonstrates that the DEIS greatly understates likely production.

[73] EIA, *Analysis of Projected Crude Oil Production in the Arctic National Wildlife Refuge* (2018) [hereinafter EIA May 2018 Analysis].

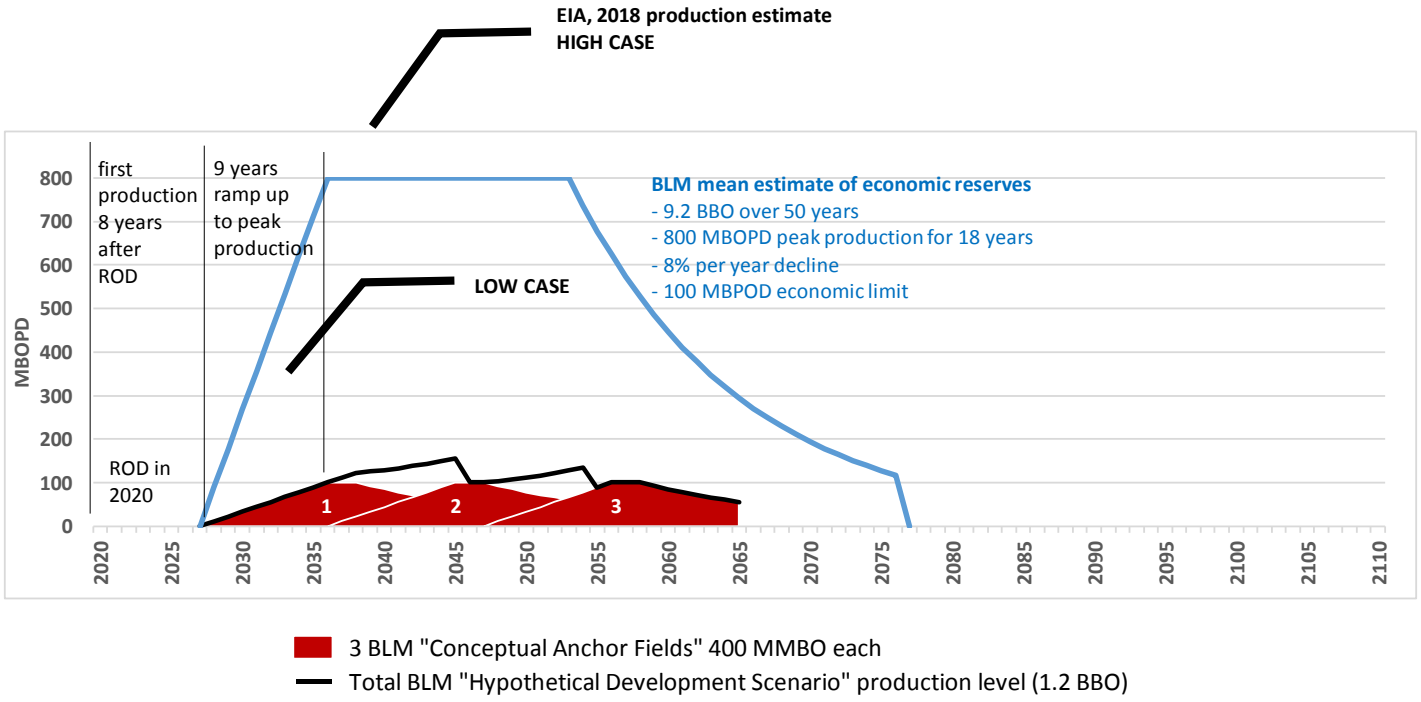
Figure 8. Comparison of production from the BLM's Hypothetical Development Scenario composed of three Anchor Fields with modeled production from BLM's mean estimate of 9.2 BBO economic reserves.



The EIA's May 2018 analysis of crude oil production estimates that in the low case production peaks at nearly 560 MBOPD in 2039 and in the high case at 1.2 MMBOPD in 2044.[74] (*See* comparison in Figure 9).

[74] EIA May 2018 Analysis, *supra* at 9.

Figure 9. Comparison of production from the BLM's Hypothetical Development Scenario composed of three Anchor Fields with modeled production from BLM's mean estimate of 9.2 BBO economic reserves and EIA, 2018 high and low peak production estimates.

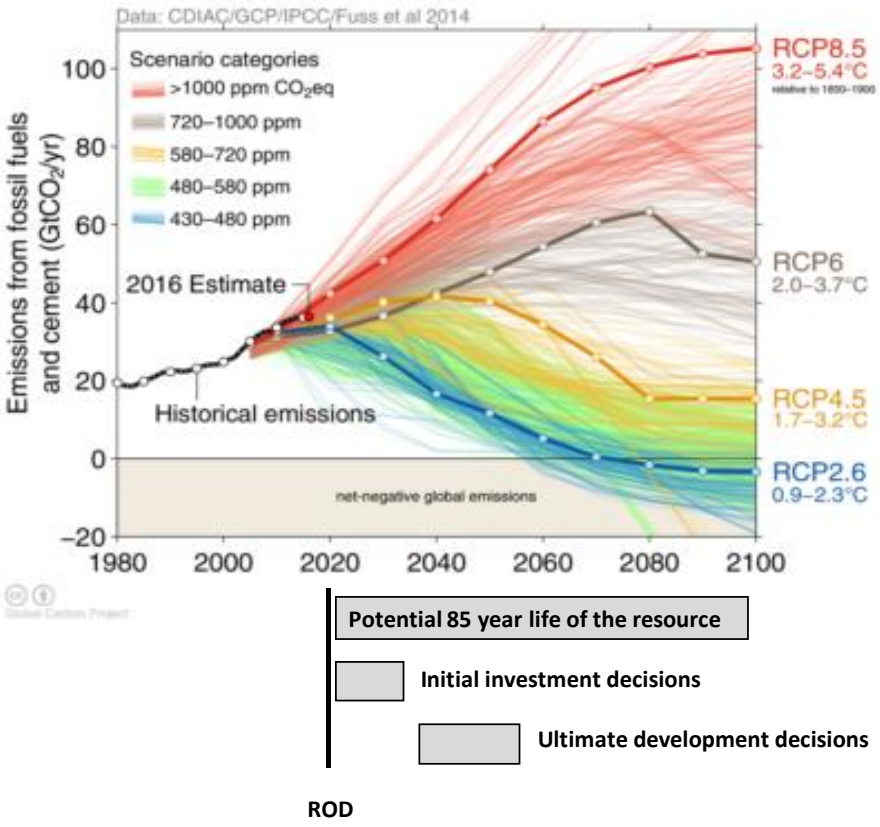


As the above figures demonstrate, the BLM fails to accurately portray potential production levels and fails to meet its stated goal of representing optimistic high-production development.

Length of Development, Social Context of Future Financial Decisions. The DEIS estimates that development activities could continue for up to fifty years, with last production eighty-five years or more from the first lease sale. (DEIS, at B-7). This means that in addition to initial development decisions made in the first five to twenty years after ROD, key investment decisions will continue to be required throughout mid-century.

Figure 10 overlays this time frame on a chart of potential global carbon dioxide concentrations and increases in atmospheric temperatures. By mid-century, it is possible that there will be no desire or no need for more high-cost oil from remote regions due to alternatives. In addition, continual advances in Lower-48 shale extraction technology over the next few decades will continue to contest high-cost oil from remote regions, such as the 1002. The DEIS fails to accurately portray the multiple economic and social dimensions of the decision milieu facing potential developers, which could minimize the value of the resource and resulting production levels, especially in late life.

Figure 10. Hydrocarbon Investment Decision Milieu.



VII. Surface Development Limitation

The Tax Cuts and Jobs Act of 2017 ("Tax Act") provides:

> In administering this section, the Secretary shall authorize up to 2,000 surface acres of Federal land on the Coastal Plain to be covered by production and support facilities (including airstrips and any area covered by gravel berms or piers for support of pipelines) during the term of the leases under the oil and gas program under this section.[75]

BLM's narrow interpretation of the surface disturbance limitation fails to consider serious impacts associated with potential development. BLM excludes, for example, significant surface-disturbing activities such as gravel mines. BLM also imposes a temporal limit that undermines the purpose of the surface disturbance limitation. Because BLM interprets the 2,000-acre limitation as limiting the number of acres covered by production or support facilities "*at any given time*," reclaimed acres that previously contained production and support facilities no longer count towards the 2,000-acre limit. (DEIS, at B-9). This flawed interpretation is contrary to the Tax Act.

Acres Included. The DEIS interprets the 2,000-acre limitation to "refer to acres of land directly occupied by facilities that are primarily used for development, production, and transportation of

[75] Pub. L. No. 115-97, 131 Stat. 2054.

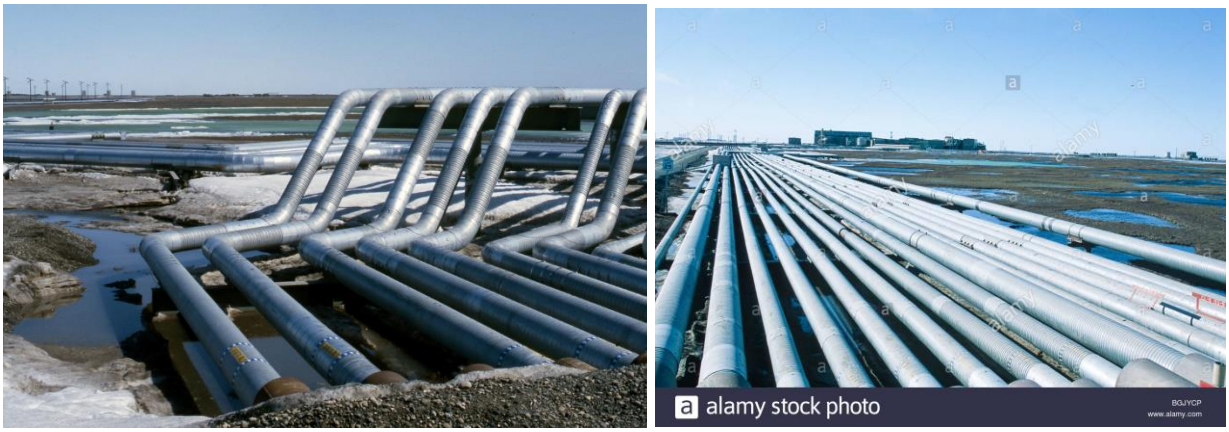
oil and gas." (DEIS, at B-9). This includes surface acres that are covered by gravel upon which these facilities are built or surface acres that are directly touched by these facilities without gravel between them and the tundra. The DEIS specifically mentions: gravel pads for wells and production/processing facilities; gravel pads from pumps or compressor stations; gravel airstrips and roads; gravel berms; and piers anchored in the tundra for the support of pipelines. (DEIS, at B-9). BLM fails to clarify whether the acres are "gravel surface acres" as measured at the top of gravel roads and pads or "tundra covered acres" as measured at the toe of the slope of gravel fill areas.

Acres Excluded. The DEIS specifies three exclusions to the 2,000-acre limitations. First, the DEIS excludes ice or snow roads and pads because they have a fleeting existence. (DEIS, at B-9).

Second, BLM excludes pipeline infrastructure that does not touch the land surface because the Tax Act only mentions pipeline support "piers" and is silent on the elevated pipeline itself between such supports. (DEIS, at B-9). The BLM fails to recognize that elevated pipelines over the tundra can cause surface disturbances, which is what the surface development cap is meant to limit. Surface disturbances are especially significant when multiple pipelines are positioned together in an elevated rack. This pipeline configuration significantly impacts the tundra below due to changes in snow accumulation depths, surface drainage characteristics, wind velocities, and sunlight penetration with resulting changes in habitat and wildlife access. (*See* Figure 11).

Figure 11. Extensive pipe racks which in aggregate create surface disturbance. This type of design significantly impacts the tundra below the pipes due to changes in snow accumulation depths, surface drainage characteristic, wind velocities, and sunlight penetration with resulting changes in habitat and wildlife access.

Figure 11. (continued).



Third, the DEIS excludes gravel mines because, like mills that supply steel for pipelines, they are not themselves oil and gas facilities. (DEIS, at B-9). The BLM, however, fails to recognize that gravel mines cause significant direct and indirect surface disturbance which is what the surface development cap is meant to limit. (*See* Figure 12). And the BLM fails to consistently apply its rationale for excluding gravel mines. For example, airstrips are not themselves oil and gas facilities yet they are included in the cap.

Gravel mining has very serious impacts that BLM fails to consider in the DEIS. Gravel extraction is generally done in large, open pit mines typically located away from major streams and lakes. It is not clear how such mines could be located in a way that protects the sensitive wildlife and biological resources of the Coastal Plain. Open pit mines require extensive overburden removal. For example, over 50 feet of vegetation and soil needed to be excavated to reach suitable gravel in the mines created for Kuparuk.[76] The resulting overburden stockpile disturbs tundra, and the gravel pit itself causes permanent changes to the area's thermal regime due to "thaw bulbs" forming in the permafrost around the unfrozen water during flooding.[77] Indirect effects such as these have led some researchers to estimate that a one acre (0.4 ha) gravel pit may impact as much as twenty-five acres surrounding the site.[78]

[76] Benjamin Sullender, *Ecological Impacts of Road- and Aircraft-Based Access to Oil Infrastructure* 19 (2017).
[77] *Id.*
[78] *Id.*

Figure 12. Mine Site B, Kuparuk River Unit.

Despite recognizing the impacts to areas surrounding gravel mines, the BLM makes no attempt to quantify that disturbance. The BLM only acknowledges the direct footprint of mining itself as being approximately 308-315 acres. (DEIS, at 3-50). The BLM does not consider the impacts to the sensitive ecosystems surrounding these mines. Additionally, the DEIS states that multiple material sources are expected to be used. Yet the DEIS does not analyze impacts from multiple gravel mines, which would have a much greater impact on the Coastal Plain than a single mine. There are also likely to be other significant impacts to the surrounding area, such as noise impacts, that have not been fully accounted for in the DEIS.

Acres Overlooked. The DEIS also completely fails to account for the following surface development footprints:

1. Non-pipeline facilities such as buildings constructed on piers elevated over the tundra and without a gravel pad beneath. This type of design significantly impacts the tundra below the facilities due to changes in snow accumulation depths, surface drainage characteristics, wind velocities, and sunlight penetration with resulting changes in habitat and wildlife access. (*See* Figure 13).
2. Other structures directly in contact with the land surface, including: snow fences, power lines, telecom towers, bridge abutments, and pilings.
3. Other gravel fill footprints not specifically mentioned as included or excluded, including: construction equipment storage and materials laydown pads, ancillary gravel mining areas for gravel sorting, gravel pile storage, overburden storage, and drilling waste grind and inject well and associated facilities.
4. Expanding gravel road and pad surface areas due to maintenance practices. (*See* Figure 14).

Figure 13. Examples of elevated buildings on piers over the tundra without a gravel pad (or without the need for a gravel pad) beneath. This type of design significantly impacts the tundra below the facilities due to changes in snow accumulation depths, surface drainage characteristics, wind velocities, and sunlight penetration with resulting changes in habitat and wildlife access.

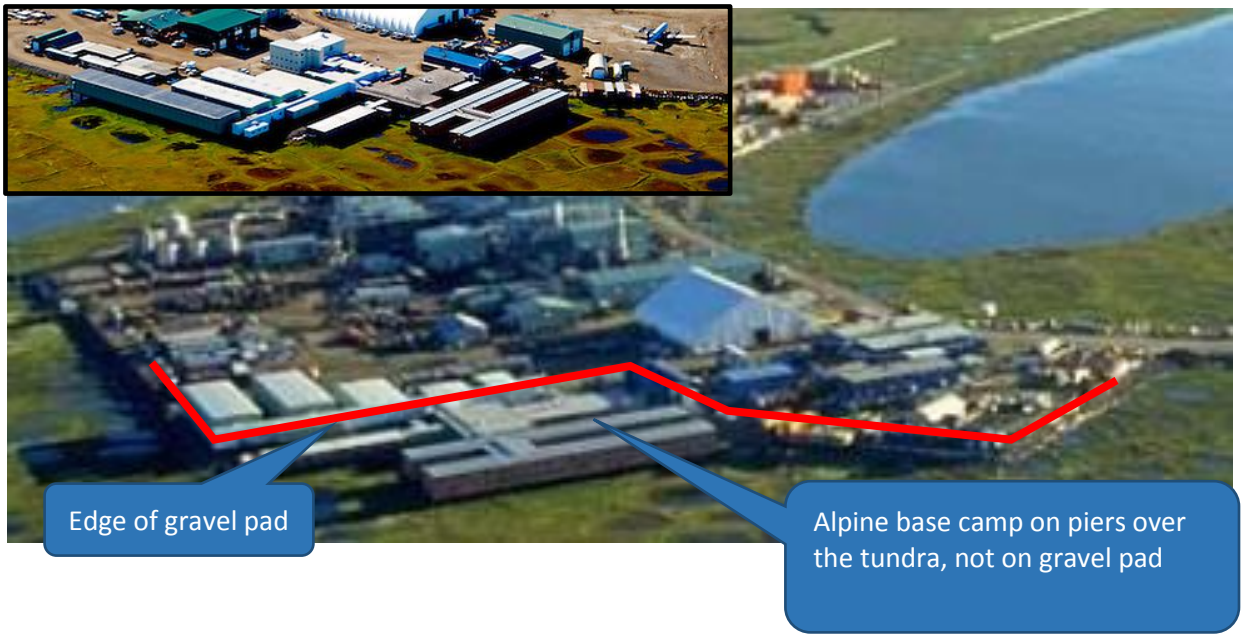
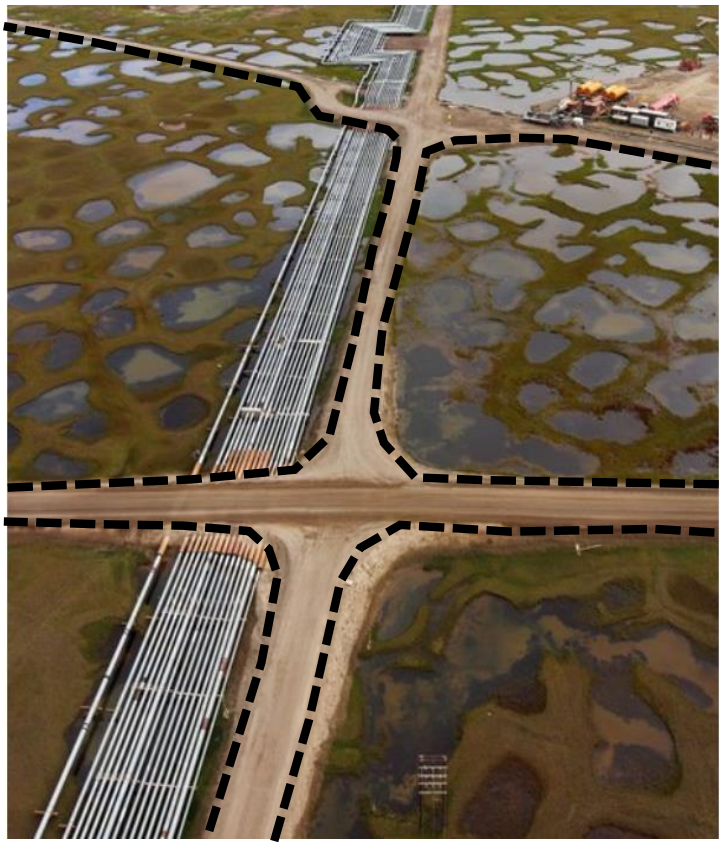


Figure 14. Examples of expanding gravel road widths. Dotted line in top photo shows original width compared to actual, which has expanded due to maintenance practices (conceptual). Oval in bottom photo shows fugitive gravel fill on tundra from summer road grading and/or winter snow removal.

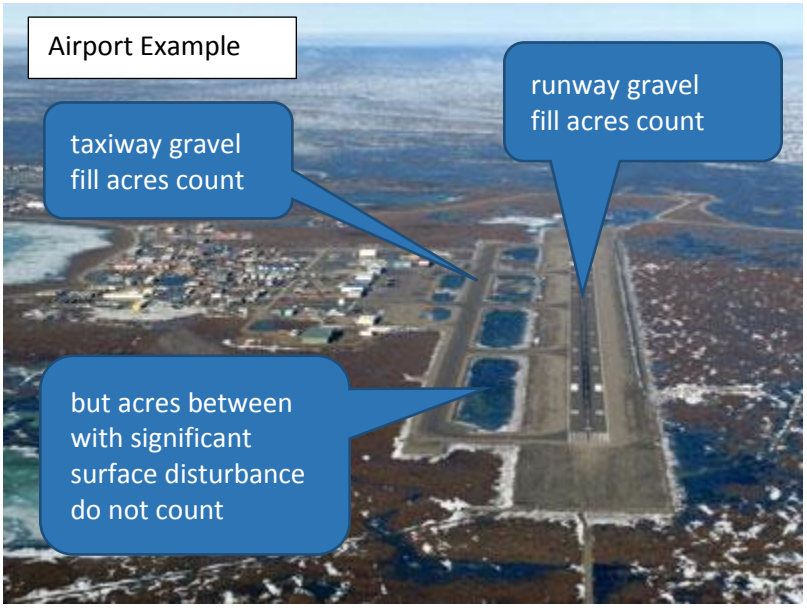


The DEIS fails to account for the location and spatial distribution of gravel in addition to absolute surface acres. Where and how gravel fill is arranged on the Coastal Plain can have as significant an impact as how much tundra surface area is covered up. (*See* Figure 9 above). How the surface disturbance is permitted to occur will have vastly different impacts on habitat and, as a result, subsistence uses.

The Tenth Circuit Court of Appeals has recognized that a limitation on solely the amount of surface disturbance, compared to a limitation on the distribution of the disturbance, can result in a significant difference in the effects of that disturbance on plants and wildlife.[79] In that case, the BLM initially considered an alternative that limited surface disturbance associated with oil and gas development to areas within a specified distance from existing roads.[80] In the final EIS, the BLM selected a modified alternative that limited surface disturbances to 5% of the leased parcel but did not include limitations on location.[81] "Because location, not merely total surface disturbance, affects habitat fragmentation," the court concluded that the two alternatives were "qualitatively different" and held that BLM was required to issue a supplement analyzing the impacts of the modified alternative.[82] The court further stated that, "the location of development greatly influences the likelihood and extent of habitat preservation. Disturbances on the same total surface acreage may produce wildly different impacts on plants and wildlife depending on the amount of contiguous habitat between them."[83] These effects were significant in the fragile Chihuahuan Desert grasslands at issue there and even more so in the Coastal Plain, where 2,000 acres of disturbance can spread in a spider web, affecting areas at magnitudes of difference than if that disturbance was carefully limited. (*See* Figure 15).

[79] *New Mexico ex rel. Richardson v. BLM*, 565 F.3d 683, 706–07 (10th Cir. 2009).
[80] *Id.* at 690.
[81] *Id.*
[82] *Id.* at 707.
[83] *Id.* at 706.

Figure 15. Examples of where and how gravel fill is placed and arranged can have as significant an impact as how much gravel is actually placed.



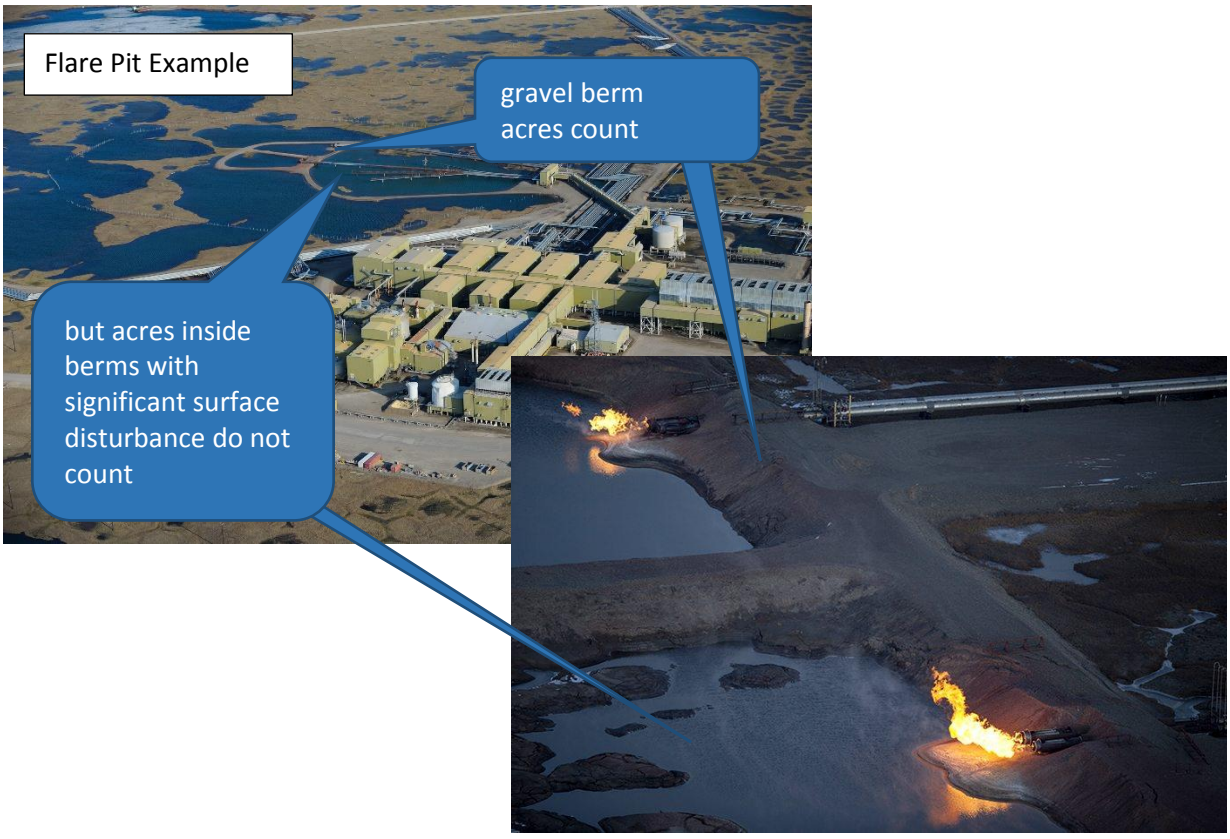
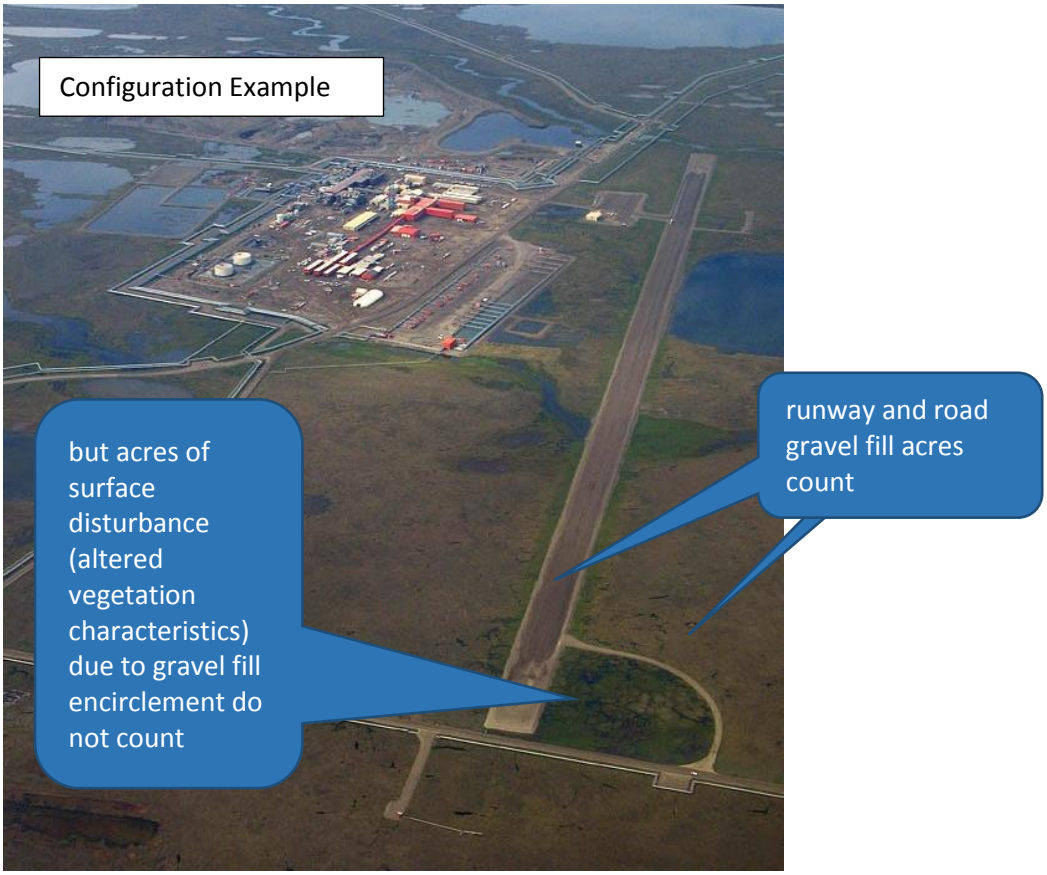


Figure 15. (continued).



When will acres be initially granted? The DEIS fails to specify the criteria and process for when acres will be secured by parties. Possibilities include: (1) at lease sale to successful bidders; (2) when development plans are approved; (3) when financial investment decisions are made; (4) when permits are secured; or (5) when construction begins.

If acres are granted too early in the development process, especially if granted to oversized speculative development plans or to operators unwilling to bear the expense of small cramped pad development, there will be few acres among the 2,000-acre limit left for remaining development. Conversely, if acres are granted too late in the development process there will be a race to that deadline resulting in potentially incomplete plans and a contested queue. Either way BLM fails to address how orderly development of the resource will be assured in the granting of surface acres.

How will acres be allocated? The DEIS fails to specify the criteria and process for how many acres will be granted to parties. Possibilities include: (1) as many acres as requested, potentially on a first come first served basis; or (2) based on metrics such as "X" acres per well or well pad, or "Y" acres per central processing facility (CPF) pad, or "Z" acres per airstrip. Without constraint, developers will seek the most acres possible and the cumulative effect could be to oversubscribe, strand acres, and limit development. The BLM fails to address how orderly development of the resource will be assured in allocating surface acres.

When will the acres be surrendered? The DEIS fails to specify the criteria and process for releasing acres once production is over. Possibilities include: (1) at the economic limit of each pad; (2) when production equipment is turned off for the final time; (3) when production equipment and gravel are removed; (4) when the tundra is restored. In terms of economics, each developer will have a different view of end-of-economic life for an individual well, well pad, and field, based on their own corporate cost structures, future price calls, discounting factors, and cost of capital for further development. In addition, some developers may be willing to operate a well pad or CPF at breakeven production levels (or even negative cash flow) to postpone significant dismantlement and abandonment costs. BLM fails to address how orderly development of the resource will be assured in surrendering surface acres.

How will developed surface acres be tracked for individual developers? The DEIS fails to address how it will monitor acres granted to a developer against acres actually used by the developer once gravel has been placed. In addition, the DEIS fails to address how it will deal with over and under variances by a developer (i.e., more acres placed than allowed or more acres resulting from gravel creep over time, and fewer acres placed than needed, especially if acres are granted in preliminary design stages before final design acres are known).

How will the acres be administrated? The DEIS also fails to outline how cumulative acres will be monitored and tracked to determine how many acres remain to be issued at any point in time and to ensure the cap is not violated. Specifically, the DEIS fails to indicate:

- How the BLM will maintain a database with this information for industry and public use.
- How the BLM will update the database for gravel road and pad acre creep due to maintenance practices, the consequences it will impose on developers for such creep, and how remaining acres in the 2,000-acre cap will be adjusted accordingly.

- How the BLM will prevent gravel acre speculation by developers who may request more acres than needed or may initially request acres based on preliminary designs that require more acres than the finalized designs.
- How the BLM will prevent developers from speculative bidding or delaying development in order to hold acres that will be worth more in the future.

The DEIS fails to address how orderly development of the resource will be assured in administering the program and how it will minimize allotment variances sought by operators.

Finally, BLM fails to address how surface acres required to connect discontinuous development areas by roads, pipelines, and power lines will be allocated to each connected development and applied towards the total cap of 2,000 acres. The DEIS (DEIS, at 3-221, 3-223) states that under each alternative a network of gravel roads would be needed to connect discrete facilities:

Alternative	Connecting Road Miles	Road Acres (at 7.5 acres/mile)	% of 2,000-acre cap
B	208	1560	78%
C	213	1597	80%
D1	218	1635	82%
D2	217	1637	81%

VIII. Technological Advancements versus Surface Development Acres

The DEIS asserts:

> [A]dvances in technology have allowed development on the North Slope to become less impactful on the surrounding environment. For example, the assumption is that each satellite production pad could disturb approximately 12 acres . . . however, newer well pads . . . suggest that, on average, pad sizes . . . may be closer to 10 acres with well density ratios increasing from 1.6 to 2.2 wells per acre to 2.5 to 3.3 wells per acre. (DEIS, at B-7).

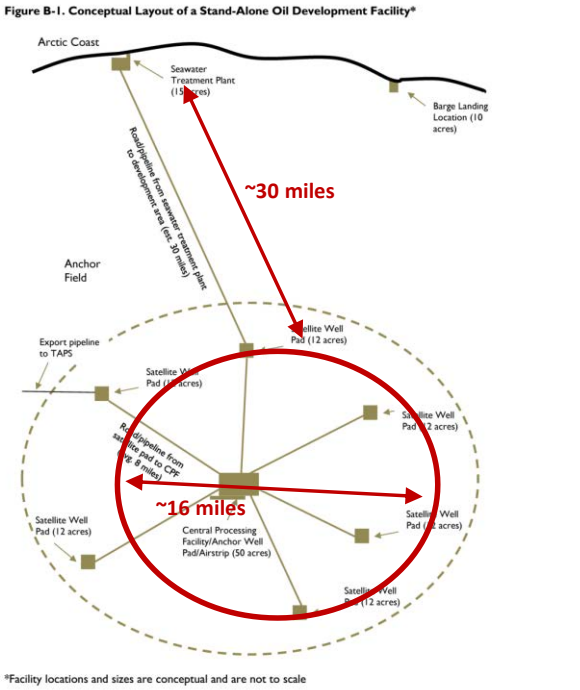
The DEIS fails to mention that technological advances related to the surface disturbance acres required for development have been made only for well pads. Similar technological advances have not been made for other surface-disturbing activities associated with development, including: CPF pads, airstrips, roads, pipeline, seawater treatment plan (STP) facilities, landing docks, and gravel mines. The footprint of much of this other infrastructure is dictated by external factors that have not changed significantly over time. For example, required safe length and width of runways, width of vehicles and construction equipment for roads, and barge docking requirements. In addition, gravel mine sizes are dictated by local geology. By focusing on only one aspect of development, well pads, the BLM presents an incomplete picture.

Figure 16 shows the DEIS concept Anchor Field with associated surface disturbance required, 736 acres. Figure 17 shows the reduced footprint of well pads over time due to advances in directional drilling with well pad oil drainage areas and the distance between pads increasing from 1.3 miles

in 1970, to 4.2 miles in 2016, to 6.3 miles with future extended reach drilling or ERD.[84] The BLM has chosen a scenario drainage area of approximately eight miles with drilling to occur seven years after ROD in the most aggressive case. The current ERD record is held by a super complex Sakhalin well drilled in 2017 that extends approximately 8.5 miles.

Figure 16. BLM's Concept Anchor Field with associated infrastructure and surface acre requirements.

BLM "Conceptual Anchor Field" Layout



Facility	amount	acres per	total ac
CPF	1 each	50	50
Well Pads	6 each	12	72
Well Pad Pipelines	48 mi	0.04/mi	2
Well Pad Roads	48 mi	7.5/mi	360
STP*	1 each	15	15
STP road	30 mi	7.5/mi	225
STP pipeline	30 mi	0.04/mi	1
Barge Landing (no road)	1 each	10	10
Export Pipeline (no road)	30 mi	0.04/mi	1.2
Field Total Acre's			**736**

* STP = seawater treatment plant

[84] *The Potential for Oil and Gas Exploration and Development in the Non-Wilderness Portion of the Arctic National Wildlife Refuge, Known as the "1002 Area" or Coastal Plain, to Raise Sufficient Revenue Pursuant to the Senate Reconciliation Instructions included in H. Con. Res. 71 Before the S. Comm. on Energy and Natural Resources* (2017) (statement of Aaron Schutt, President and Chief Executive Officer, Doyon, Limited).

Figure 17. New Technology Reduces Footprint/Impacts of Development on North Slope.[85]

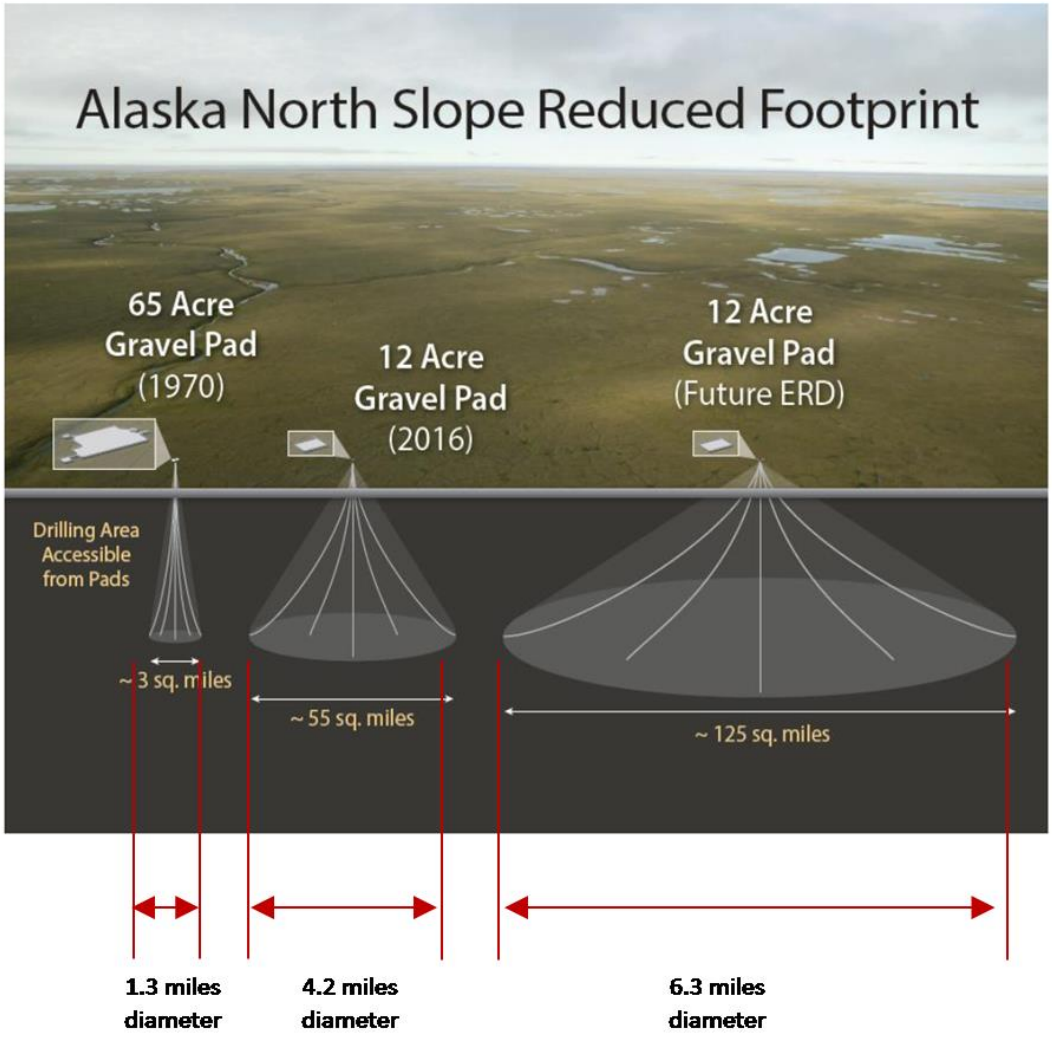
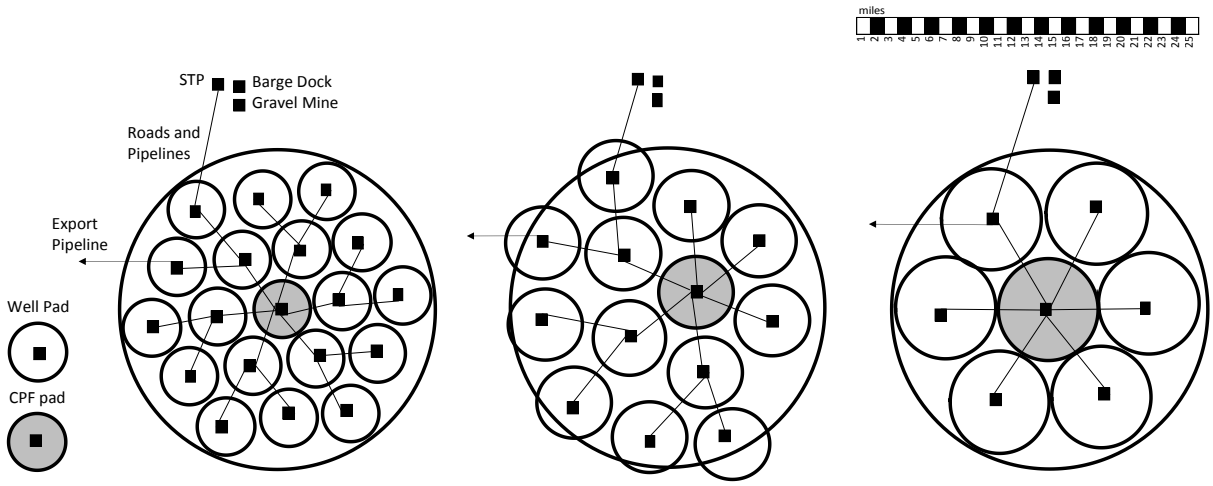


Figure 18 is a conceptual analysis of total surface acres required for Anchor Field development under three well pad development scenarios using various lengths of directional drilling: 4.2 miles in 2016, 6.3 miles with future ERD, and 8.0 miles in the DEIS scenario.

[85] *Id.*

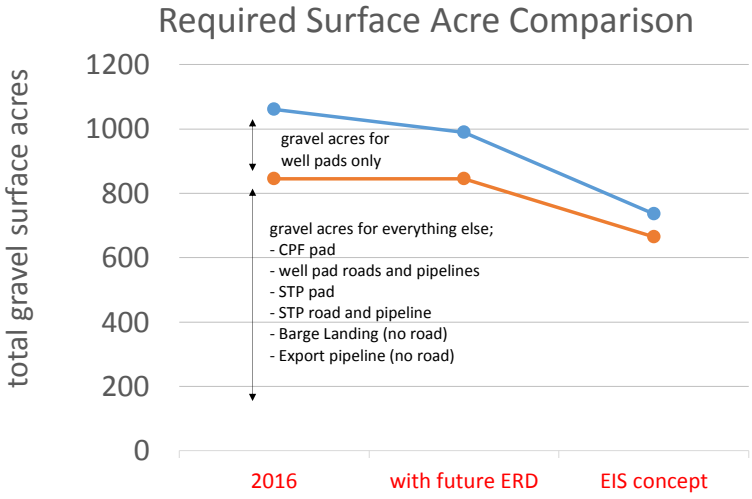
Figure 18. Conceptual analysis of total surface acres required for development with advances in directional drilling.



	amount	acres per	total ac
CPF	1	50	50
Well Pads	18	12	216
Well Pad Pipelines	72 mi	0.04/mi	3
Well Pad Roads	72 mi	7.5/mi	540
STP	1	15	15
STP road	30 mi	7.5/mi	225
STP pipeline	30 mi	0.04/mi	1
Barge Landing (no road)	1	10	10
Export Pipeline (no road)	30 mi	0.04/mi	1
TOTAL			1061

	amount	acres per	total ac
CPF	1	50	50
Well Pads	12	12	144
Well Pad Pipelines	72 mi	0.04/mi	3
Well Pad Roads	72 mi	7.5/mi	540
STP	1	15	15
STP road	30 mi	7.5/mi	225
STP pipeline	30 mi	0.04/mi	1
Barge Landing (no road)	1	10	10
Export Pipeline (no road)	30 mi	0.04/mi	1
TOTAL			989

	amount	acres per	total ac
CPF	1	50	50
Well Pads	6	12	72
Well Pad Pipelines	48 mi	0.04/mi	2
Well Pad Roads	48 mi	7.5/mi	360
STP	1	15	15
STP road	30 mi	7.5/mi	225
STP pipeline	30 mi	0.04/mi	1
Barge Landing (no road)	1	10	10
Export Pipeline (no road)	30 mi	0.04/mi	1
TOTAL			736



As shown, acres required for well pads will be reduced 66% across the scenarios due to technological advancements, but total surface acres are reduced only 30% over the forward-looking time frame (or only 25% if a 300-acre gravel mine is included in each scenario). By focusing on one aspect of development, well pads, and excluding infrastructure requirements for full development, the DEIS fails to realistically portray the impact of technological advancements on required surface acres.

IX. Visual Impacts

The DEIS inadequately considers the visual impacts of potential development in the Program Area. For example, the DEIS fails to include the visual impact of exhaust plumes from CPF facilities and gas burning heaters at well pads and fails to consider their impact. As shown in Figure 19, depending on atmospheric conditions (temperature, humidity, and inversion conditions) these plumes can raise to significant heights. Due to the topography of the Program Area these plumes can potentially be visible for miles in differing lighting conditions.

Figure 19. Visually impacting exhaust plumes.

X. Hypothetical Development Scenarios

The DEIS states that 80% of petroleum resources are estimated to be west of the Marsh Creek Anticline. (DEIS, at B-5). Mean economically recoverable reserves in that area range from 7.46 to 2.72 BBO. (*See* Figure 20). As shown in Figures 21 and 22, BLM fails to describe how that significant concentration of total hydrocarbons in one-third of the 1002 area will impact development intensity across the Coastal Plain.

The DEIS lays out a roughly circular Anchor Field concept economically producing a minimum of 400 MMBO and describes a Hypothetical Development scenario composed of three Anchor Fields, at no specified locations, economically producing a minimum total of 1.2 BBO. (DEIS, at B-13 to B-17) (*See* Figures 23 and 24). The DEIS fails to consider that oil accumulations are usually irregularly shaped (*see* Figure 21) and that the circular Anchor Field Concept must be modified accordingly. (*See* Figure 22). The DEIS does not describe the necessary range and size of individual Anchor Fields required to meet either the mean total estimate of hydrocarbon resources or the upside in line with the BLM's stated intention of describing "optimistic high-production" impacts. The DEIS fails to overlay and arrange Concept Anchor fields on the Coastal Plain in a way that recognizes differing development intensity arising from the uneven distribution of hydrocarbon resources. (*See* Figures 26-28). The DEIS does not consider that development of the Coastal Plain will require industrial support centers analogous to Deadhorse, which the BLM must also include in the impact assessment.

Figure 20. Uneven distribution of the total Coastal Plain potential oil resources and wild range of recoverable oil estimates.

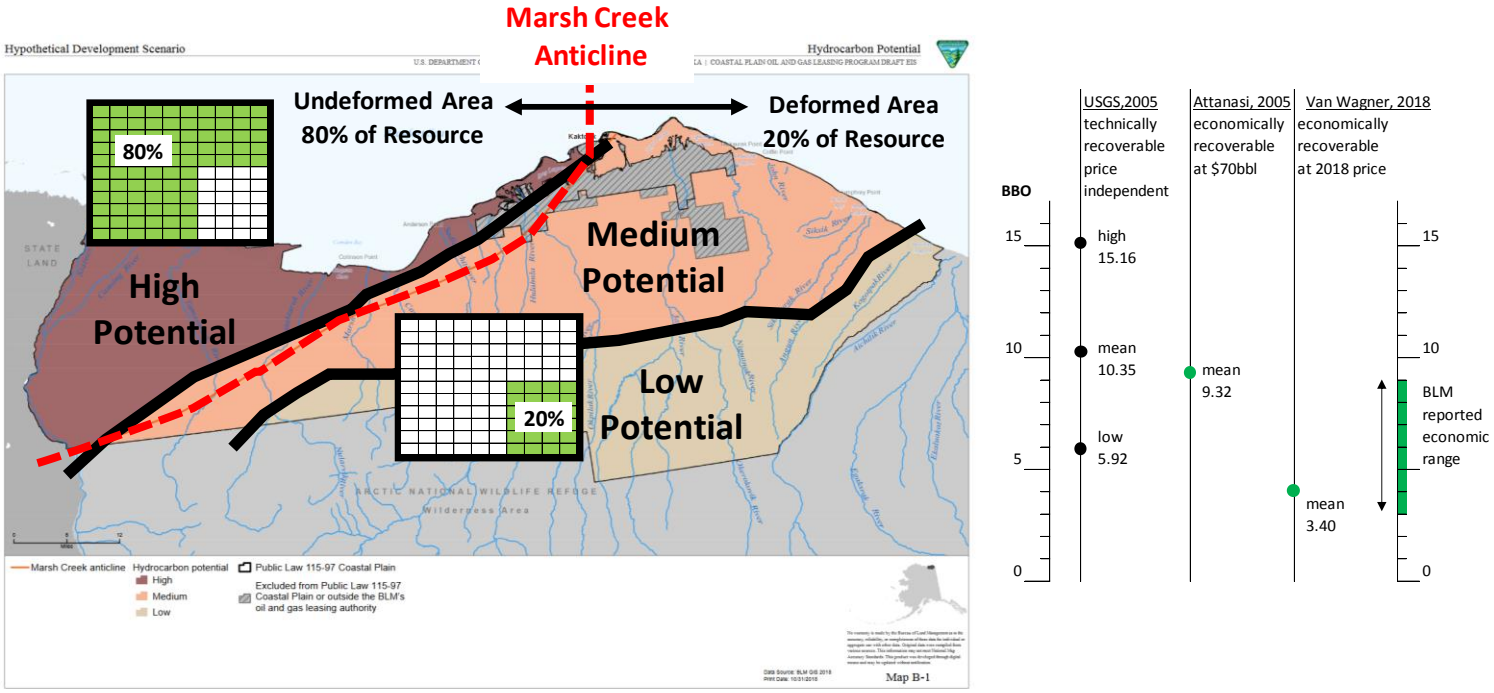


Figure 21. Overlay on existing North Slope development to show uneven size and distribution of potential oil accumulations.

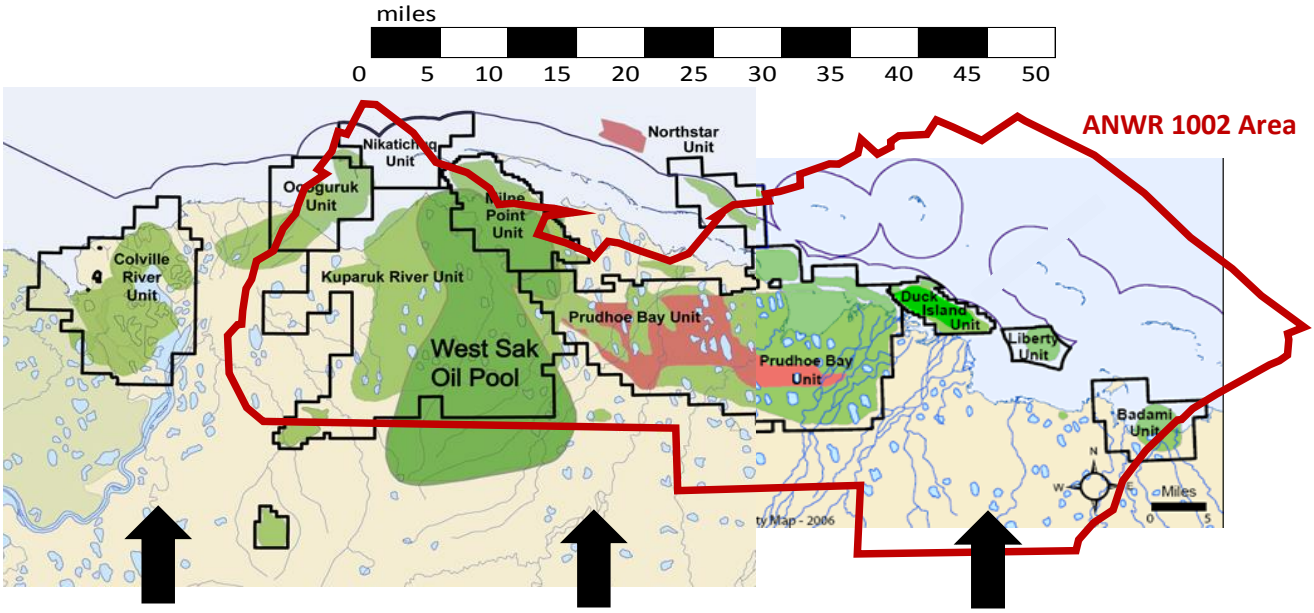


Figure 22. Surface disturbance characteristics of differing development intensity arising from the uneven distribution of hydrocarbon resources.

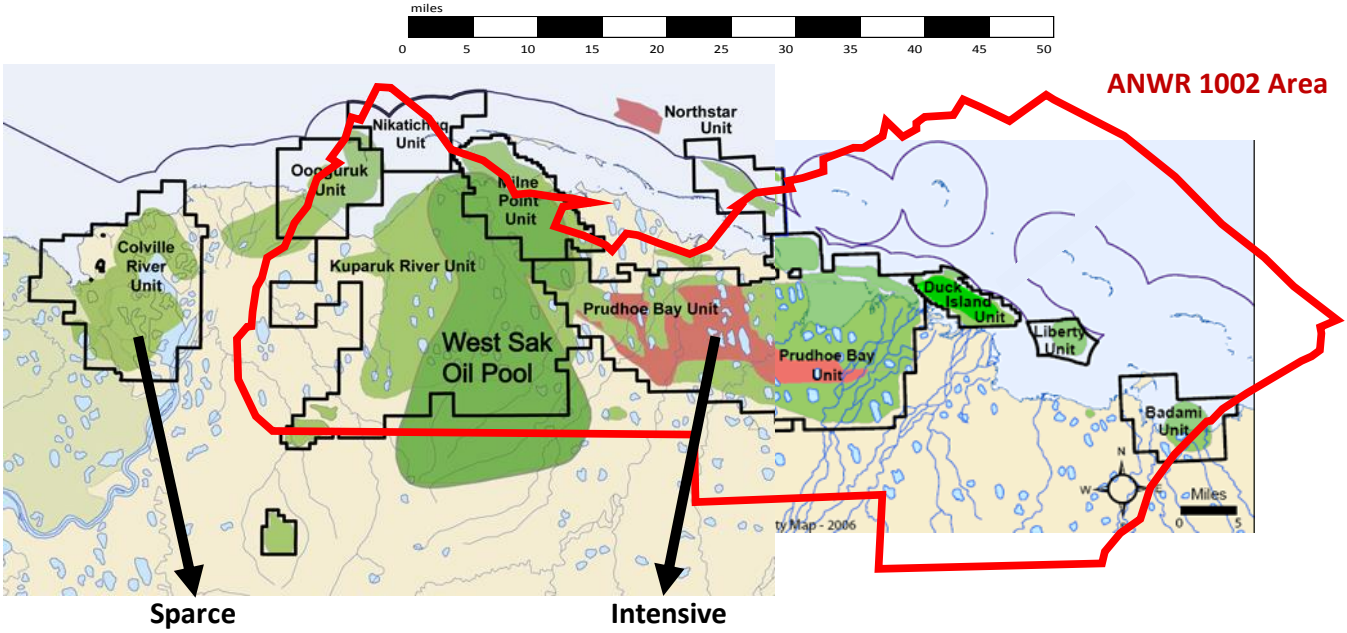
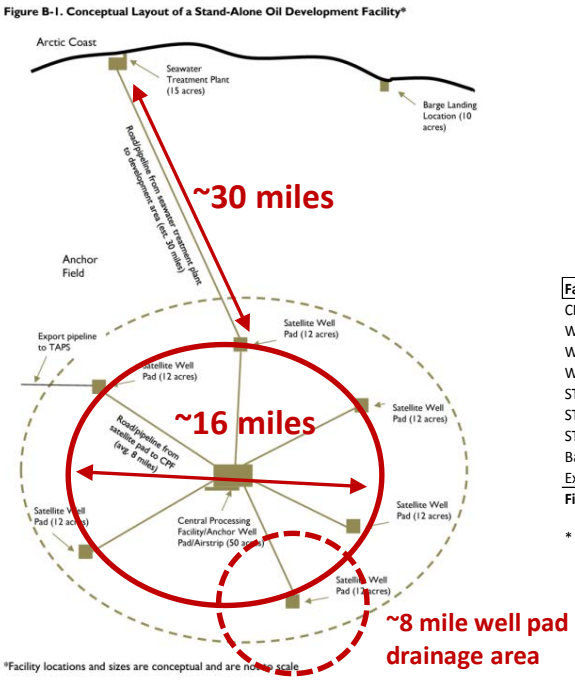


Figure 23. BLM's Conceptual Field Layout with gravel acre requirements economically producing a minimum of 400 MMBO from approximately 8-mile well pad drainage patterns



Facility	amount	acres per	total ac
CPF	1 each	50	50
Well Pads	6 each	12	72
Well Pad Pipelines	48 mi	0.04/mi	2
Well Pad Roads	48 mi	7.5/mi	360
STP*	1 each	15	15
STP road	30 mi	7.5/mi	225
STP pipeline	30 mi	0.04/mi	1
Barge Landing (no road)	1 each	10	10
Export Pipeline (no road)	30 mi	0.04/mi	1.2
Field Total Acre's			**736**

* STP = seawater treatment plant

Figure 24. BLM Hypothetical Development scenario composed of three Anchor Fields at no specified locations economically producing a minimum total of 1.2 BBO.

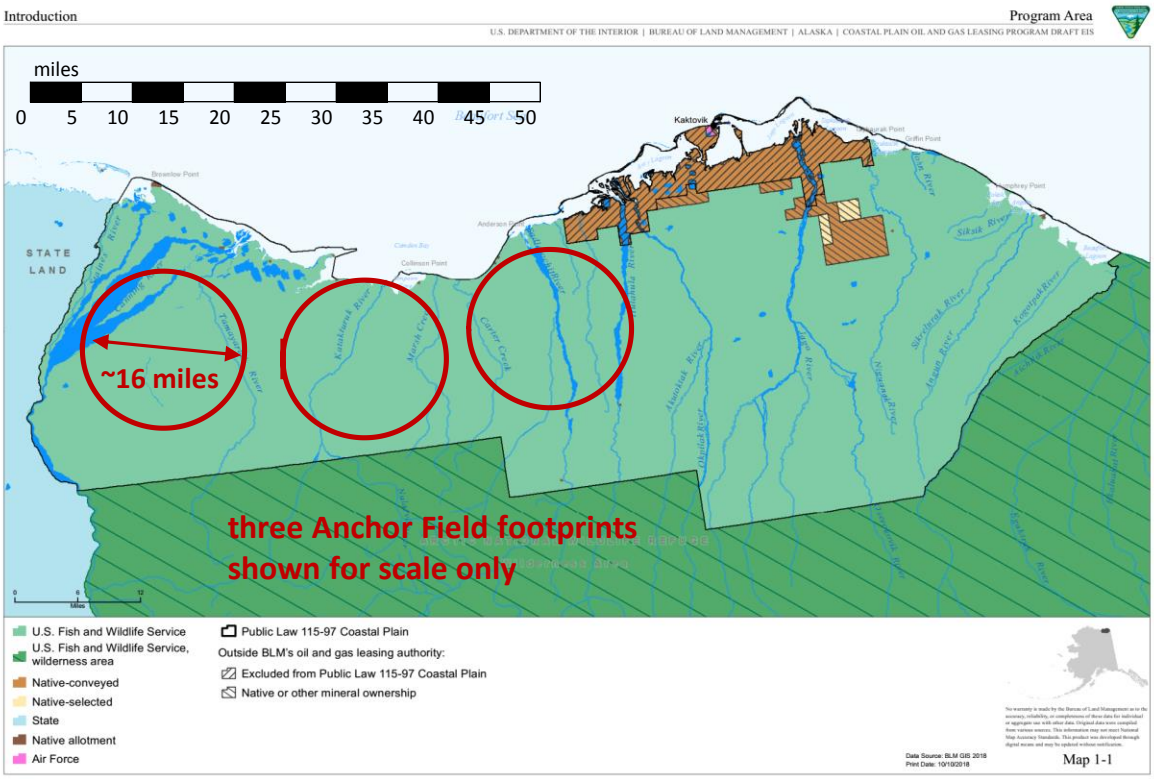


Figure 25. Conceptual Anchor Field modifications to align with uneven field sizes.

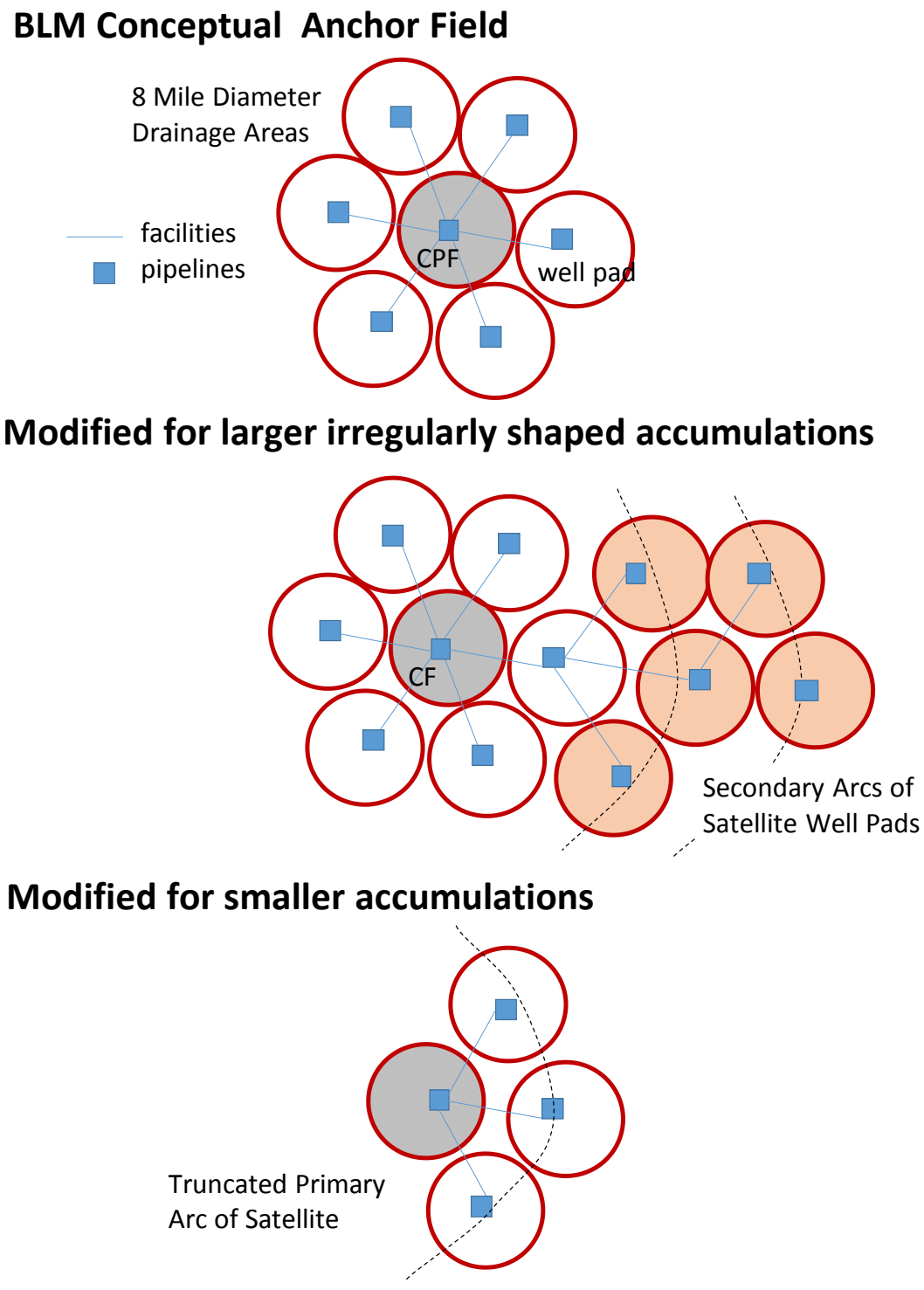


Figure 26. Existing development patterns on the North Slope. Existing and secondary areas of well pads at the large Kuparuk accumulation.

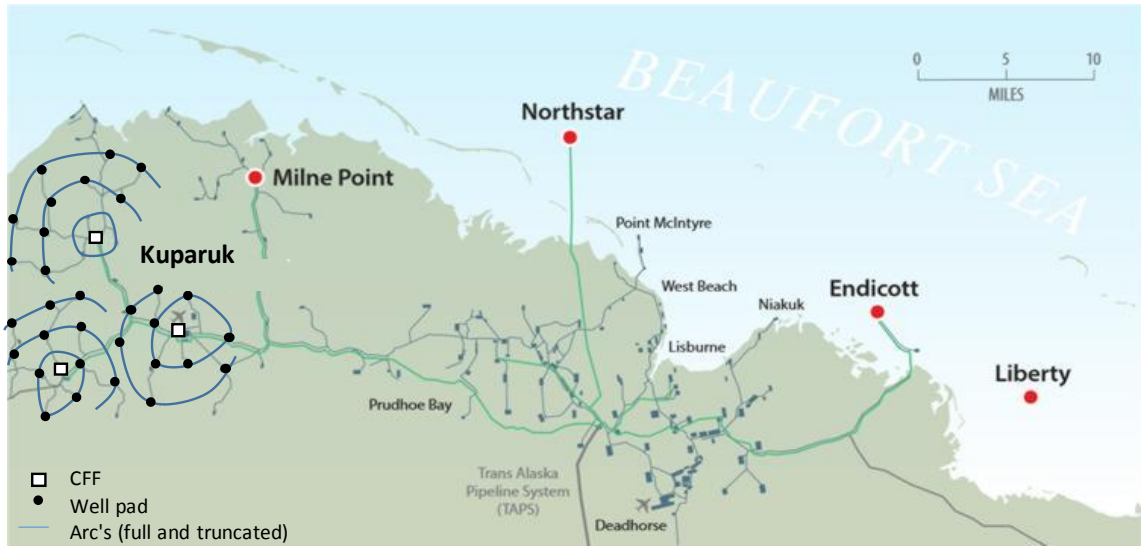


Figure 27. Existing development patterns on the North Slope. Well Pads draining smaller accumulations along a linear pipeline corridor at Alpine

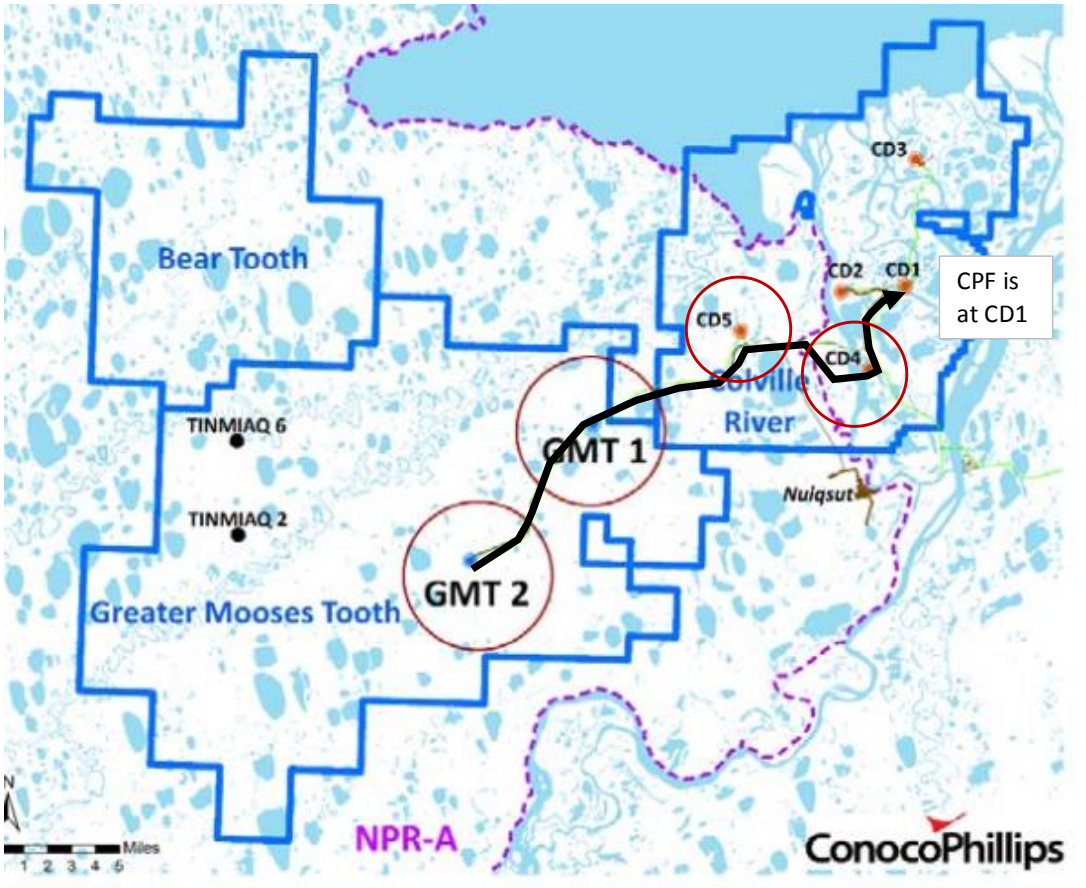
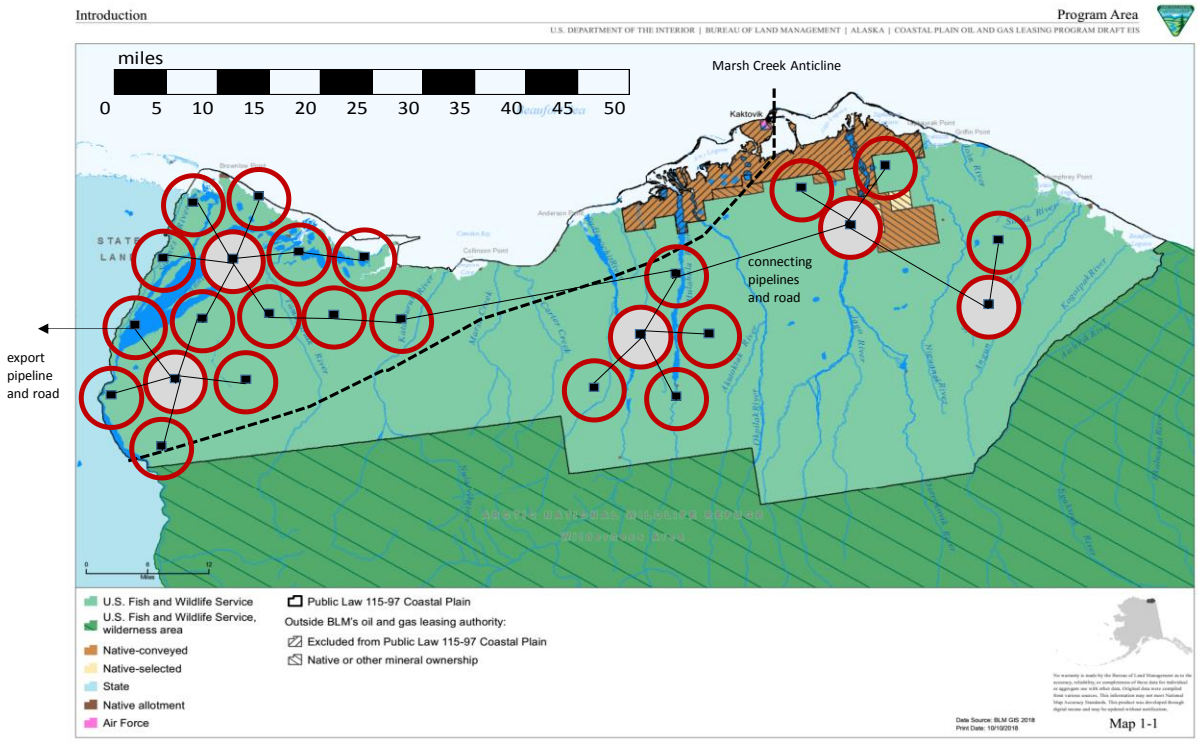


Figure 28. Modified Anchor Field overlaid on uneven resource distribution to show areas of sparse and intensive development connected by pipelines and roads. Development west of the Marsh Creek Anticline (80% of the potential resource) will likely be similar to the large Kuparuk oil accumulation with full and truncated arcs of satellite well pads around CPFs. Development east of the Marsh Creek Anticline (20% of the potential resource) will likely be similar to the linear development of smaller isolated Alpine oil accumulations along a pipeline corridor connected a common CPF.



XI. Alternatives

The DEIS offers Alternatives A, B, C, and D1 and D2. These scenarios represent a progression from no to full development. In this respect, the scenarios do not provide a set of alternatives that prioritize different values. For example, there is no alternative that has wildlife conservation as its priority. Such an alternative would exclude all surface occupancy and activities from all habitat used by the PCH. This kind of alternative would maximize the likelihood that the Program Area will continue to sustain wildlife populations. A more protective alternative is critical, especially given the many uncertainties regarding the future and the impacts of climate change. If this scenario included development west of the Marsh Creek Anticline, it would permit development in the area of the most promising oil reserves.

The selection of alternatives also includes Kaktovik Inupiat Corporation lands in all cases, which suggests that private property rights and opportunities for the Inupiat to profit are more important than wildlife and Gwich'in subsistence activities. Of course, the entire Program Area is important

to wildlife; however, should development be permitted, an alternative as described above would limit impacts on resources important to the Gwich'in (and other PCH users).

The BLM has subtly changed the provisions of alternatives described in the internal, preliminary DEIS and the DEIS released to the public. The changes show that the public DEIS allows for fewer restrictions (and more agency determinations) of land use in sensitive habitat areas.

These changes indicate that the BLM failed to meaningfully consider non-development interests in its revisions to the preliminary DEIS. The BLM's selection of alternatives fails to provide a development scenario that considers caribou (and other wildlife) conservation and subsistence as a priority.

The BLM's development and selection of alternatives has not been carried out in accordance with other statutory obligations.[86] For example, the NHPA implementing regulations require the BLM to "ensure that the section 106 process is initiated early in the undertaking's planning, so that a broad range of alternatives may be considered during the planning process for the undertaking."[87] The BLM initiated the Section 106 process well after it developed and selected the alternatives. Indeed, the BLM has yet to conduct a single Section 106 consultation with the Native Village of Venetie Tribal Government, Arctic Village Council, or Venetie Village Council.

Thus, the Section 106 process has had no effect on the development of alternatives. Therefore, the alternatives discussed in the DEIS fail to take into account effects to historic properties, including cultural landscapes such as Iizhik Gwats'an Gwandaii Goodlit. None of the alternatives represent any effort by the BLM to avoid, minimize, or mitigate adverse effects to historic properties. As the Section 106 implementing regulations make clear: "The [BLM] shall consult with the SHPO[] and other consulting parties, including Indian tribes . . . , to develop and evaluate *alternatives or modifications* to the undertaking that could avoid, minimize, or mitigate adverse effects on historic properties."[88] Furthermore, the DEIS's section on alternatives fails to address how the Section 106 process will inform the ongoing development and selection of alternatives.

The alternative development analysis presented in Figures 29-33 demonstrates that the BLM's Anchor Field concept is wholly inadequate and misleading. Because the BLM based its analysis on this flawed concept, the DEIS failed to adequately consider the impacts of potential development in the Program Area.

The BLM's Anchor Field is an inadequate and misleading concept to describe the geometry of facility layout possibilities. Given the potential resource distribution, many variations of CPF and well pad arrangements are likely, including long linear strings of pads in addition to concentrated concentric rings and arcs of well pads surrounding a CPF.

[86] *See* 40 C.F.R. § 1502.25 ("To the fullest extent possible, agencies shall prepare draft environmental impact statements concurrently with and integrated with environmental impact analyses and related surveys and studies required by . . . the [NHPA].").
[87] 36 C.F.R. § 800.1(c).
[88] 36 C.F.R. § 800.6(a).

The BLM's Anchor Field is an inadequate and misleading concept to describe facility layout in relation to field reserves and production levels. The DEIS assumes a single scenario of at least 400 MMBO reserves and 100 MBOPD production for each Anchor Field. The DEIS fails to analyze the minimum economic size field for development and how the Anchor Field would be modified, if at all, to fit. The DEIS also fails to analyze how the Anchor Field would scale up as field reserves and production levels increase.

The BLM's Anchor Field is an inadequate and misleading concept to describe the full impact of development on the Coastal Plain. By keeping the Anchor Field a free-floating concept and not superimposing it (or the multiple and many versions of it required) over the land area it is not possible to visually understand and grasp impacts.

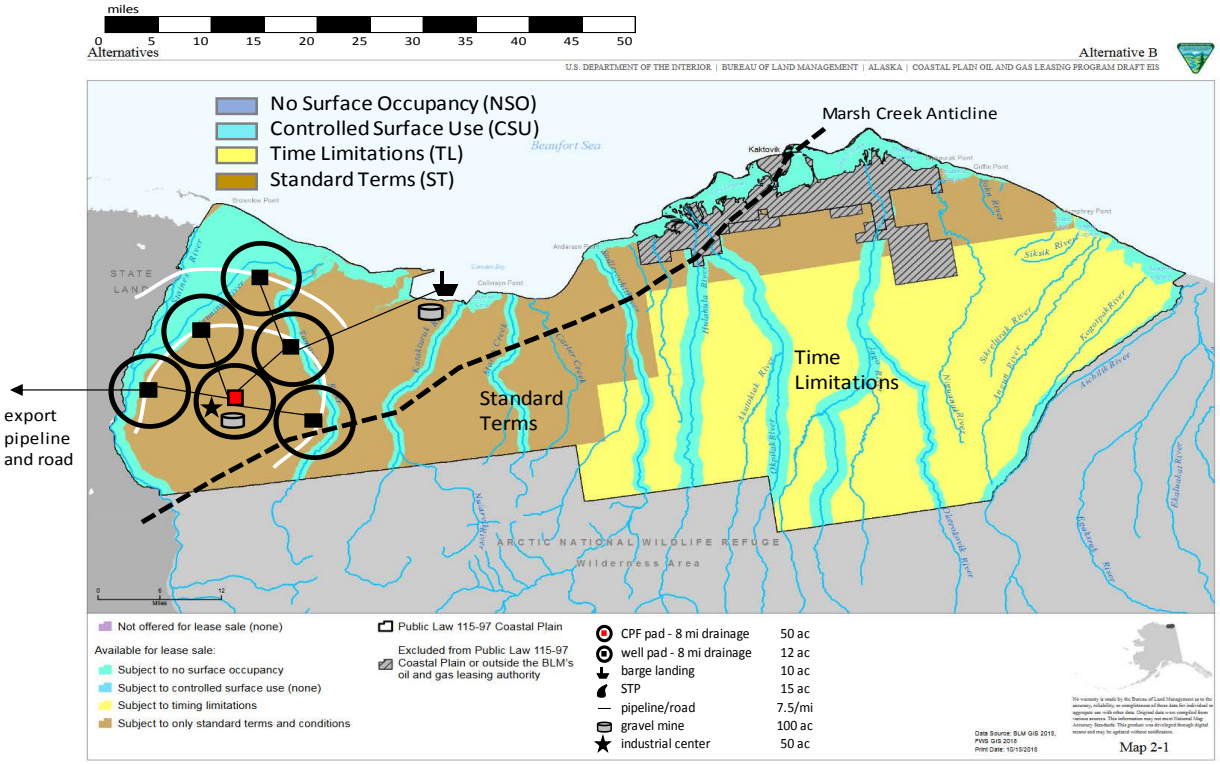
Even under the BLM's definition of the 2,000-acre surface disturbance limitation, which excludes gravel mines, full development of the Coastal Plain could occur in one push, eliminating the need to wait and to retire and reclaim previously used acres for further development. This will result in extensive linear structures (roads and pipelines) visible from the horizon. By additionally pushing development onto the excluded lands around Kaktovik to end-run the cap, this is more likely.

Given the topography of the Coastal Plain with rivers and ravines, structures will likely be developed along ridgelines making them more visible on the horizon. For pipelines crossing rivers and ravines, unless underground boring and tunneling is required, substantial elevated structures would be necessary making visual impacts greater. For roads crossing ravines, extensive cuts and fills would be required to maintain road grade, or a complete re-alignment would be required to re-route around the ravine. Both scenarios would increase surface disturbance and visual impact.

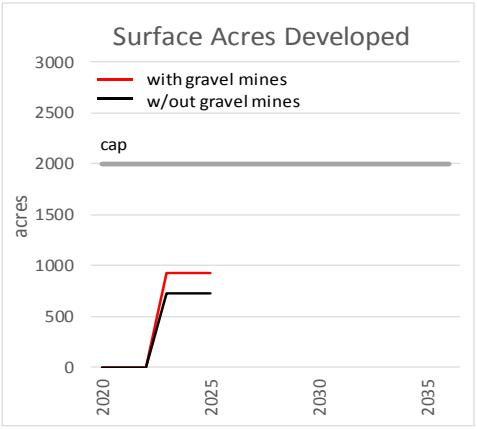
Figure 29.

Alternative B - Phase 1 development

- begin with highest potential land west of Marsh Creek Anticline
- intitally develop barge landing, "CPF west", and first arcs of well pads similar to Kuparuk



Development Scenario	with gravel mines		without gravel mines	
	acres	sum	acres	sum
Phase 1				
2020 ROD				
engineering	-	0	-	0
permitting	-	0	-	0
2023 gravel mine Camden Bay	100	100	0	0
barge dock and landing	10	110	10	10
25 mi road from dock to CPF-wes	188	298	188	198
gravel mine west	100	398	0	198
CPF-west pad	50	448	50	248
west industrial center	50	498	50	298
5 well pads for CPF-west	60	558	60	358
5 pad pipelines and roads	302	860	302	660
8 mi export pipeline and road	60	920	60	720
2025 first sealift (CPF-west modules)	-	920	-	720
first oil CPF-west	-	920	-	720
Phase 2				
Phase 3				



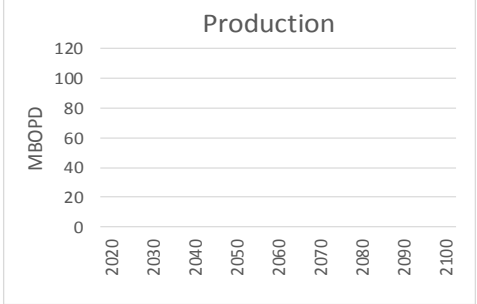
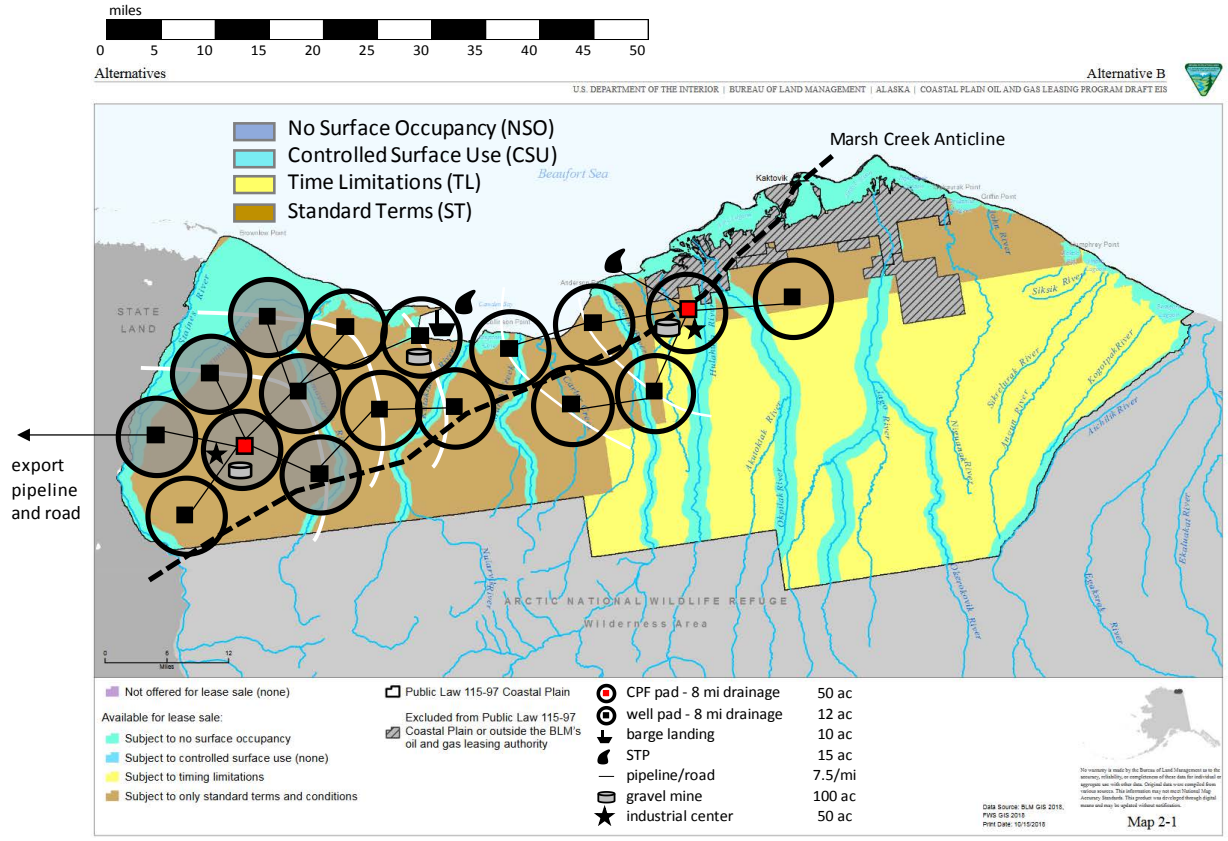


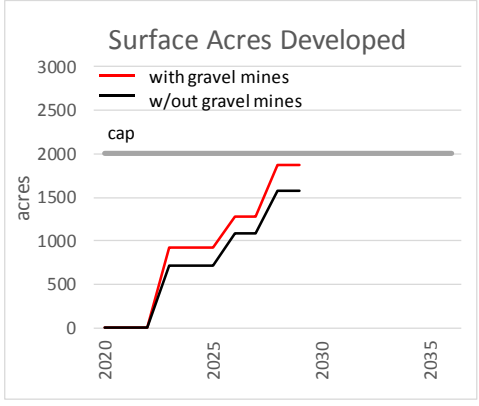
Figure 30.

Alternative B - Phase 2 development (option a)

- extend development to "CPF mid" along ST lands, add STP east and west
- option a) no use of excluded lands for any facilities



		with gravel mines		without gravel mines	
Development Scenario		acres	sum	acres	sum
Phase 1					
2020	ROD				
	engineering	-	0	-	0
	permitting	-	0	-	0
2023	gravel mine Camden Bay	100	100	0	0
	barge dock and landing	10	110	10	10
	25 mi road from dock to CPF-west	188	298	188	198
	gravel mine west	100	398	0	198
	CPF-west pad	50	448	50	248
	west industrial center	50	498	50	298
	5 well pads for CPF-west	60	558	60	358
	5 pad pipelines and roads	302	860	302	660
	8 mi export pipeline and road	60	920	60	720
2025	first sealift (CPF-west modules)	-	920	-	720
	first oil CPF-west	-	920	-	720
Phase 2			920		720
2026	5 well pads for CPF-west	60	980	60	780
	5 pad pipelines and roads	302	1282	302	1082
2028	gravel mine east	100	1382	0	1082
	CPF-mid pad	50	1432	50	1132
	east industrial center	50	1482	50	1182
	5 well pads for CPF-east	60	1542	60	1242
	5 pad pipelines and roads	302	1844	302	1544
	STP-west	15	1859	15	1559
	STP-east	15	1874	15	1574
	STP-east pipeline and road 10 miles	75	1949	75	1649
	second sealift (CPF-mid, STP modules)	-	1874	-	1574
Phase 3					



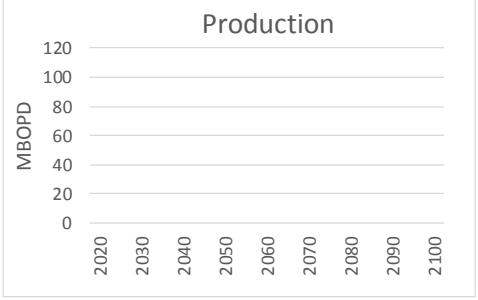
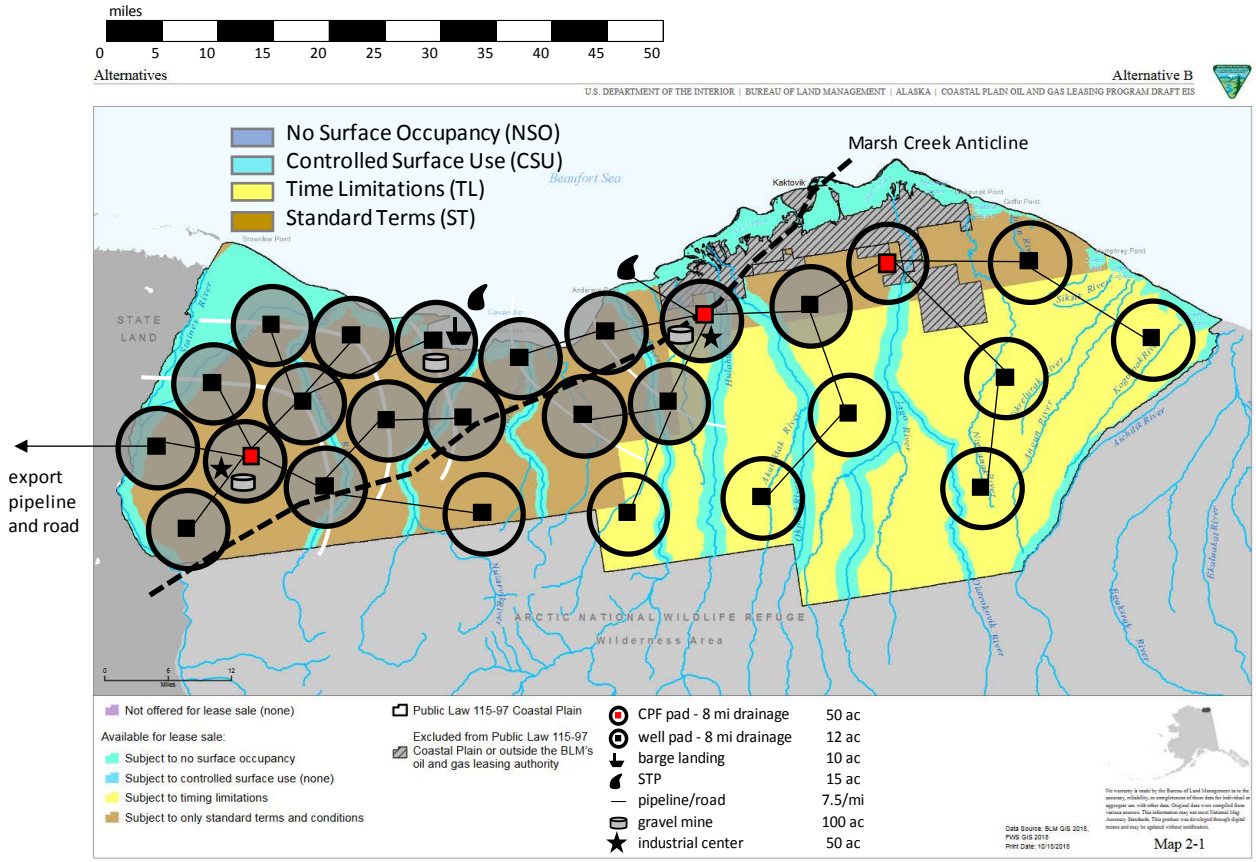


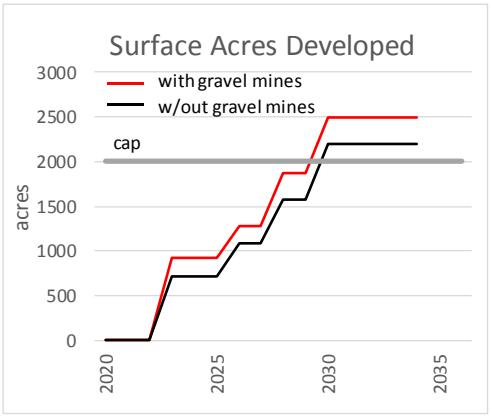
Figure 31.

Alternative B - Phase 3 development (option a)

- extend network to "CPF-east" like Alpine linear development and on to TL lands
- option a) no use of excluded lands for any facilities



Development Scenario	with gravel mines		without gravel mines	
	acres	sum	acres	sum
Phase 1				
2020 ROD				
engineering	-	0	-	0
permitting	-	0	-	0
2023 gravel mine Camden Bay	100	100	0	0
barge dock and landing	10	110	10	10
25 mi road from dock to CPF-west	188	298	188	198
gravel mine west	100	398	0	198
CPF-west pad	50	448	50	248
west industrial center	50	498	50	298
5 well pads for CPF-west	60	558	60	358
5 pad pipelines and roads	302	860	302	660
8 mi export pipeline and road	60	920	60	720
2025 first sealift (CPF-west modules)	-	920	-	720
first oil CPF-west	-	920	-	720
Phase 2		920		720
2026 5 well pads for CPF-west	60	980	60	780
5 pad pipelines and roads	302	1282	302	1082
2028 gravel mine east	100	1382	0	1082
CPF-mid pad	50	1432	50	1132
east industrial center	50	1482	50	1182
5 well pads for CPF-east	60	1542	60	1242
5 pad pipelines and roads	302	1844	302	1544
STP-west	15	1859	15	1559
STP-east	15	1874	15	1574
STP-east pipeline and road 10 miles	75	1949	75	1649
second sealift (CPF-mid, STP modules)	-	1874	-	1574
Phase 3		1874		1574
2029 first oil CPF-mid	-	1874	-	1574
2030 CPF-west pad	50	1924	50	1624
8 well pads for CPF-east	96	2020	96	1720
8 pad pipelines and roads	480	2500	480	2200
third sea lift (STP east-modules)	-	2500	-	2200
2031 first oil STP-east	-	2500	-	2200



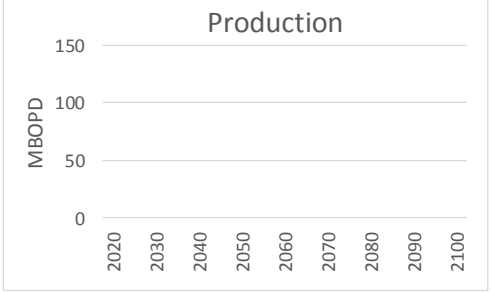
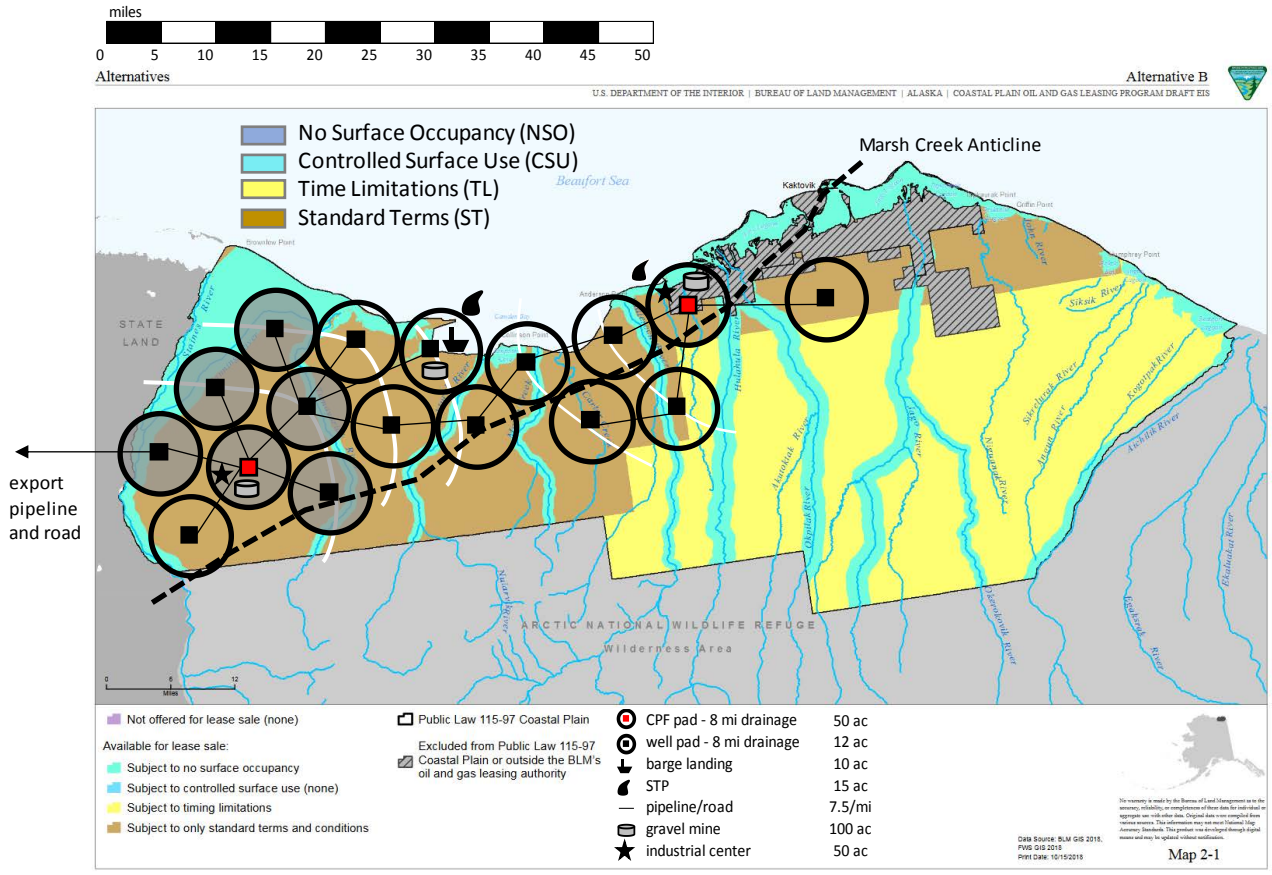


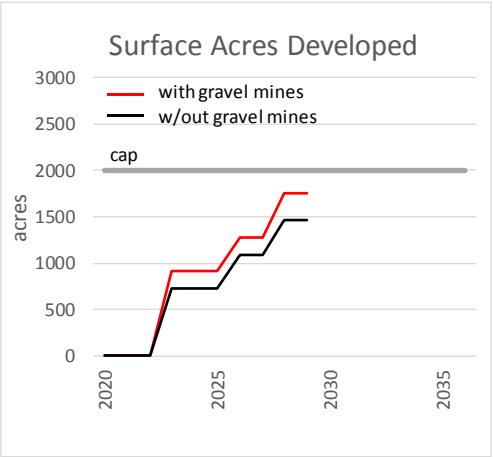
Figure 32.

Alternative B - Phase 2 development (option b)

- extend development to "CPF mid" along ST lands, add STP east and west
- option b) agressive use of excluded lands for support facilities



Development Scenario		with gravel mines acres	with gravel mines sum	without gravel mines acres	without gravel mines sum
Phase 1					
2020	ROD				
	engineering	-	0	-	0
	permitting	-	0	-	0
2023	gravel mine Camden Bay	100	100	0	0
	barge dock and landing	10	110	10	10
	25 mi road from dock to CPF-west	188	298	188	198
	gravel mine west	100	398	0	198
	CPF-west pad	50	448	50	248
	west industrial center	50	498	50	298
	5 well pads for CPF-west	60	558	60	358
	5 pad pipelines and roads	302	860	302	660
	8 mi export pipeline and road	60	920	60	720
2025	first sealift (CPF-west modules)	-	920	-	720
	first oil CPF-west	-	920	-	720
Phase 2			920		720
2026	5 well pads for CPF-west	60	980	60	780
	5 pad pipelines and roads	302	1282	302	1082
2028	gravel mine east	100	1382	0	1082
	CPF-mid pad	0	1382	0	1082
	east industrial center	0	1382	0	1082
	5 well pads for CPF-east	60	1442	60	1142
	5 pad pipelines and roads	302	1744	302	1444
	STP-west	15	1759	15	1459
	STP-east	0	1759	0	1459
	STP-east pipeline and road 10 miles	0	1759	0	1459
	second sealift (CPF-mid, STP modules)	-	1759	-	1459
Phase 3					



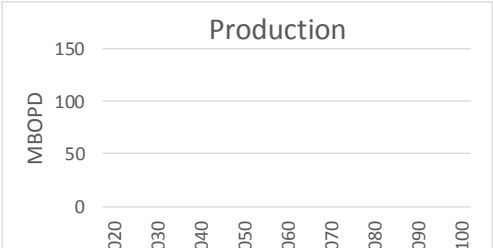
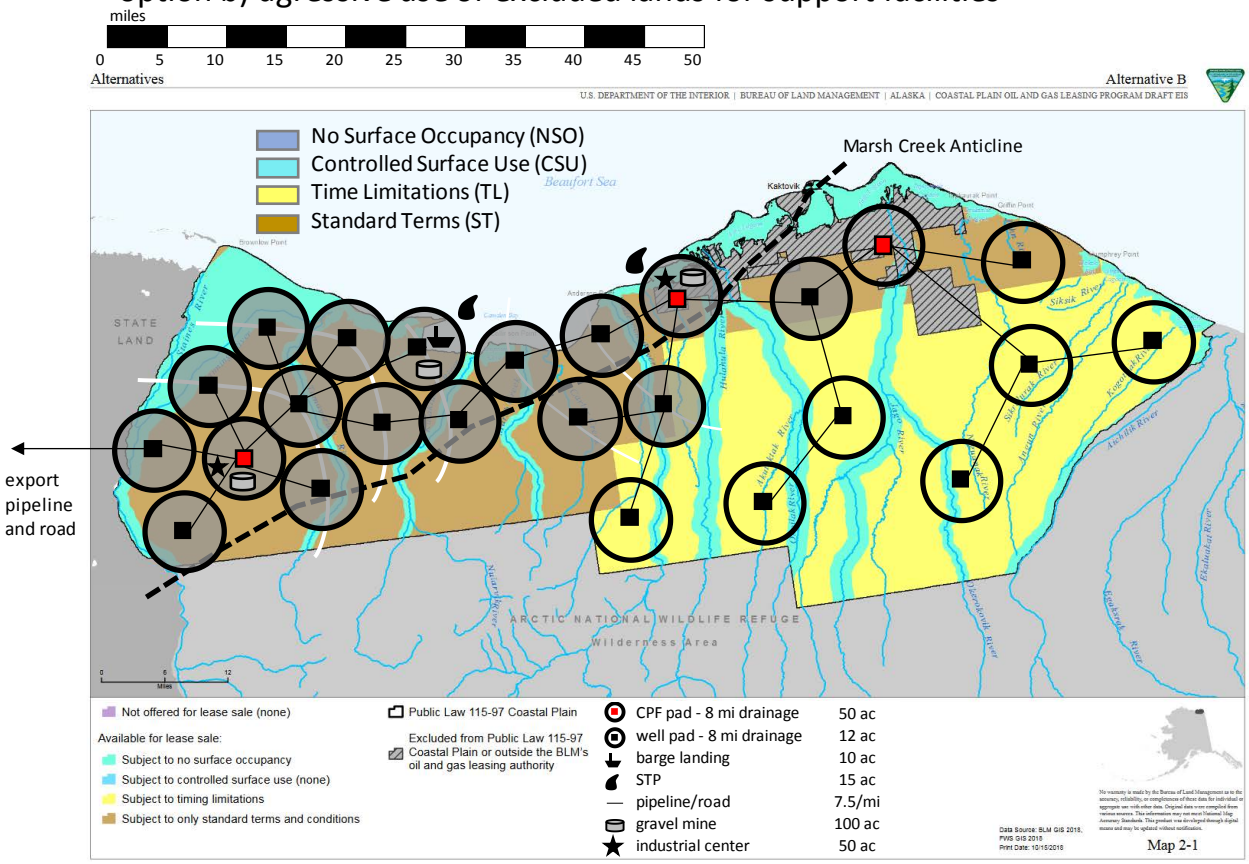


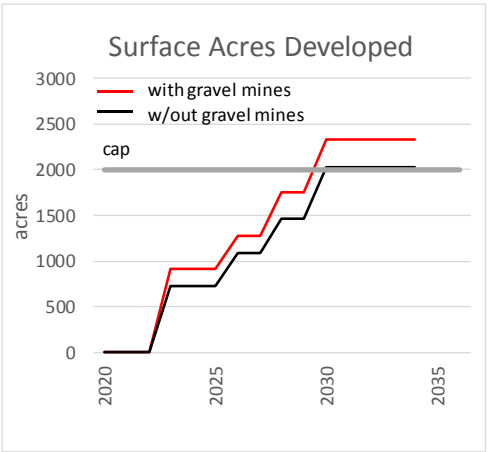
Figure 33.

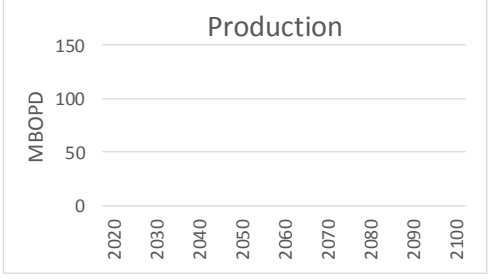
Alternative B - Phase 3 development (option b)

- extend network to "CPF-east" like Alpine linear development and on to TL lands
- option b) agressive use of excluded lands for support facilities



Development Scenario	with gravel mines acres	with gravel mines sum	without gravel mines acres	without gravel mines sum
Phase 1				
2020 ROD				
engineering	-	0	-	0
permitting	-	0	-	0
2023 gravel mine Camden Bay	100	100	0	0
barge dock and landing	10	110	10	10
25 mi road from dock to CPF-west	188	298	188	198
gravel mine west	100	398	0	198
CPF-west pad	50	448	50	248
west industrial center	50	498	50	298
5 well pads for CPF-west	60	558	60	358
5 pad pipelines and roads	302	860	302	660
8 mi export pipeline and road	60	920	60	720
2025 first sealift (CPF-west modules)	-	920	-	720
first oil CPF-west	-	920	-	720
Phase 2		920		720
2026 5 well pads for CPF-west	60	980	60	780
5 pad pipelines and roads	302	1282	302	1082
2028 gravel mine east	100	1382	0	1082
CPF-mid pad	0	1382	0	1082
east industrial center	0	1382	0	1082
5 well pads for CPF-east	60	1442	60	1142
5 pad pipelines and roads	302	1744	302	1444
STP-west	15	1759	15	1459
STP-east	0	1759	0	1459
STP-east pipeline and road 10 miles	0	1759	0	1459
second sealift (CPF-mid, STP modules)	-	1759	-	1459
Phase 3		1759		1459
2029 first oil CPF-mid	-	1759	-	1459
2030 CPF-west pad	0	1759	0	1459
8 well pads for CPF-east	96	1855	96	1555
8 pad pipelines and roads	480	2335	480	2035
third sea lift (STP east-modules)	-	2335	-	2035
2031 first oil STP-east	-	2335	-	2035





XII. US-Canada International Agreement for the Porcupine Caribou

The DEIS fails to adequately address the international impacts of the proposed oil and gas development. From an ecological perspective, the Program Area provides important habitat for an array of migratory species, including Beluga, Bowhead, caribou, and waterfowl. The failure to include maps in the DEIS that show the full range and migratory paths of these species underscores its deficient analysis of the international impacts of development in the Coastal Plain.

The use of the area by migratory species has prompted the United States' participation in several international agreements to ensure their conservation. As the DEIS notes, in 1987 the United States and Canada entered the *Agreement between the Government of the United States of America and the Government of Canada on the Conservation of the Porcupine Caribou Herd* (Caribou Treaty). The execution of the Caribou Treaty was preceded by decades of cooperation between United States and Canadian wildlife management agencies. This cooperation included regular meetings of the International Porcupine Technical Committee.

The Caribou Treaty states its purpose as:

- To conserve the Porcupine Caribou Herd and its habitat through international cooperation and coordination so that the risk of irreversible damage or long-term adverse effects as a result of use of caribou or their habitat is minimized;
- To ensure opportunities for customary and traditional uses of the herd by rural Alaska residents, Yukon and Northwest Territories, Native users as defined by sections A8 and A9 of the Porcupine Caribou Management Agreement (1985);
- To enable users of Porcupine Caribou to participate in the international coordination of the conservation of the Porcupine Caribou Herd and its habitat; [and]
- To encourage cooperation and communication among governments, users of the Porcupine Caribou and others to achieve these objectives.

Conservation is defined in the agreement as: "the management and use of the Porcupine Caribou Herd and its habitat utilizing methods and procedures which ensure the long-term productivity and usefulness of the Porcupine Caribou Herd. Such methods and procedures include, but are not limited to, activities associated with scientific resources management such as research law enforcement, census taking, habitat maintenance, monitoring and public information and education."

While the DEIS mentions the Caribou Treaty, it fails to address how the proposed development scenarios, as well as the BLM's process in developing this DEIS, comport with the treaty's terms. In fact, the BLM has repeatedly failed to adhere to the terms of the Caribou Treaty during the development of this DEIS.

For example, the United States has refused requests by the Canadian Government, including First Nations Tribal Governments, to hold public meetings in Canada, so that Canadian subsistence communities can discuss the proposal. The DEIS fails to mention of the role of Canada, the Porcupine Caribou Herd Technical Committee, or the Board during the leasing, exploration, and production processes. Indeed, the chapter on alternatives fails to include any Canadian input. The

DEIS fails to include adequate analysis of the impacts of development to Canadian subsistence user communities.

The Caribou Treaty further states:

- The Parties will take appropriate action to conserve the Porcupine Caribou Herd and its habitat.
- The Parties will ensure that the Porcupine Caribou Herd, its habitat and the interests of users of Porcupine Caribou are given effective consideration in evaluating proposed activities within the range of the Herd.
- Where an activity in one country is determined to be likely to cause significant long-term adverse impact on the Porcupine Caribou Herd or its habitat, the other Party will be notified and given an opportunity to consult prior to final decision.
- The Parties should avoid or minimize activities that would significantly disrupt migration or other important behavior patterns of the Porcupine Caribou Herd or that would otherwise lessen the ability of users of Porcupine Caribou to use the Herd.
- When evaluating the environmental consequences of a proposed activity, the Parties will consider and analyze potential impacts, including cumulative impacts, to the Porcupine Caribou Herd, its habitat and affected users of Porcupine Caribou.

The DEIS fails to address these obligations.

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Enclosure 6

Comments from The Native Village of Venetie Tribal Government, The Arctic Village Council, and The Venetie Village Council on Leasing Program Scoping (June 19, 2018)

Comments of
The Native Village of Venetie Tribal Government
The Venetie Village Council, and
The Arctic Village Council

On

The Bureau of Land Management's

Notice of Intent to Prepare an Environmental Impact Statement for the Coastal Plain Oil and Gas Leasing Program, Alaska, 83 Fed. Reg. 17562 (Apr. 20, 2018)

Submitted June 19, 2018

I. General Comments

This comment is being submitted jointly by the Native Village of Venetie Tribal Government, the Venetie Village Council, and the Arctic Village Council (collectively, "the Tribes"). The Tribes collectively represent the Gwich'in tribal members living in Arctic Village and Venetie. They are the modern successors of our traditional governments and each is recognized as a sovereign Indian Tribe having a government-to-government relationship with the United States.[1] The Native Village of Venetie is the present owner of the 1.8 million acres that once constituted the Venetie Indian Reserve. Our Tribal members continue to live a subsistence way of life in the villages of Venetie and Arctic Village; both of which are located far from Alaska's road system.

At the outset, the Tribes wish to unequivocally state their opposition to the Bureau of Land Management's ("BLM") proposed oil and gas leasing program.[2] The Coastal Plain of the Arctic National Wildlife Refuge ("the Refuge") is one of the most important natural, cultural, and subsistence resources to the Tribes and to all Gwich'in people as a whole. This is reflected in the Gwitch'in name for the Coastal Plain: Izhik Gwats'an Gwandaii Goodlit, or "the sacred place where life begins." Oil and gas development in this area is wholly incompatible with the Gwitch'in worldview. The caribou that calve on the Coastal Plain are the primary source of our Tribal members' subsistence harvests—the keystone species that has made it possible for us to live within our traditional areas from prehistory to the present. Any impacts to those animals, from changes in migration patterns, lower fertility rates, and loss of habitat, will be felt by our Tribal members in Arctic Village and Venetie.

II. Trust Responsibility and Government-to-Government Consultation

The BLM, like all other federal agencies, owes a trust responsibility to our Tribes, as well as all the federally recognized tribes of the Yukon Flats region. Part of that trust responsibility includes the BLM's affirmative duty to "protect the subsistence resources of Indian communities."[3] In Alaska, this duty is particularly important given the unique history and laws surrounding Alaska Native tribes.[4] The legal status of Indian tribes creates an important requirement for the federal government to consult directly with tribal governments when contemplating actions that may affect tribal lands, resources, members, and welfare. Specifically, Executive Orders 13,084 and 13,175 make this requirement explicit by mandating that all executive agencies recognize tribes' sovereign status. These orders also require agencies to establish policies and procedures to foster meaningful tribal involvement and government-to-government consultation between agencies and tribes where such decisions impact tribal interests.[5]

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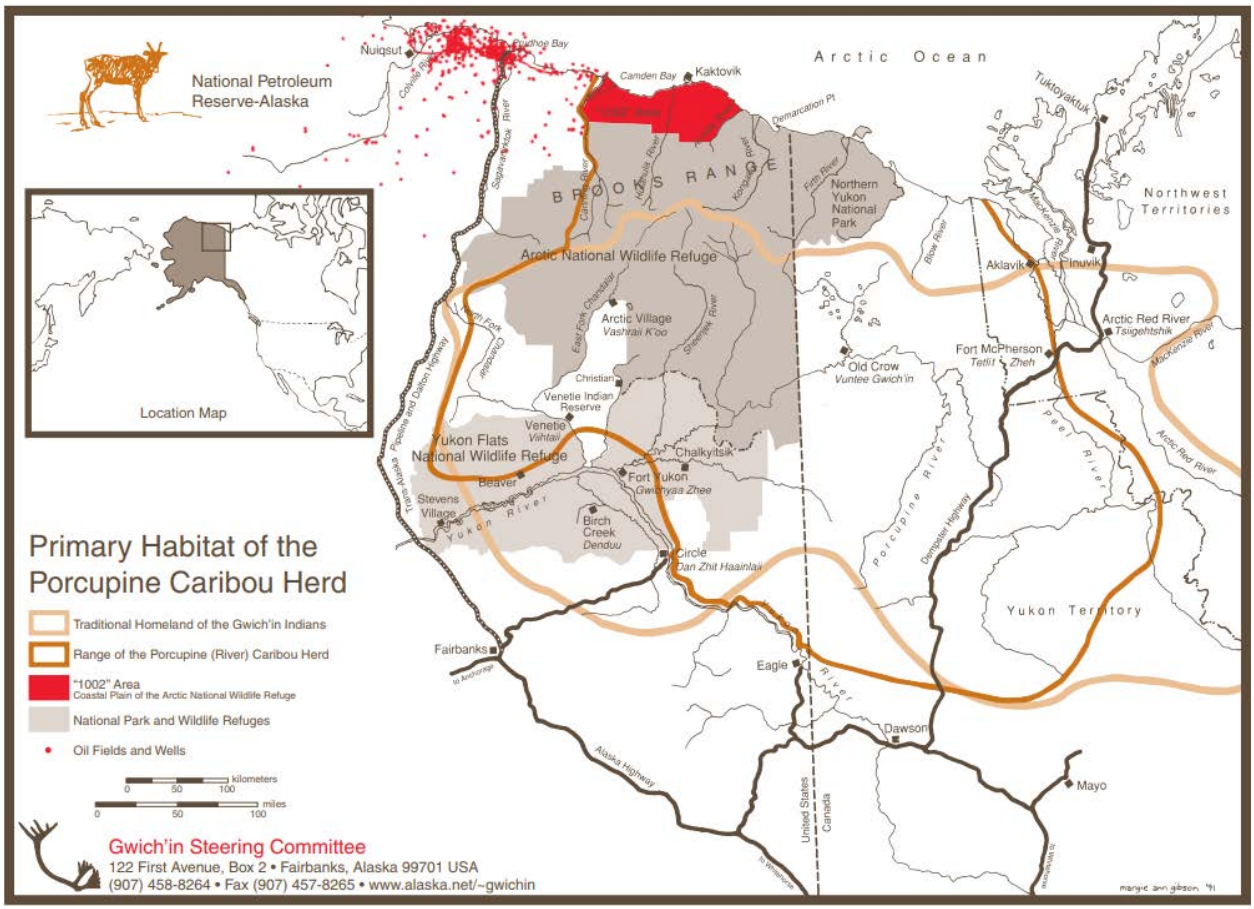
[1] *See* 83 Fed. Reg. 4,235, 4,239-40 (Jan. 30, 2018).
[2] *See* 83 Fed. Reg. 17,562 (Apr. 20, 2018).
[3] *People of Togiak v. United States*, 470 F. Supp. 423, 428 (D.D.C. 1979) (internal citations omitted).
[4] David S. Case & David A. Voluck, ALASKA NATIVES AND AMERICAN LAWS 42 (3d. ed. 2012) (discussing the atypical history of the United States' Alaska Native policy and the importance of federal statutes in developing a trust responsibility in the absence of formal treaties).
[5] Exec. Order No. 13,084, 63 Fed. Reg. 27,655 (May 19, 1998) (requiring "regular and meaningful involvement" by Tribal governments in agency actions affecting tribal interests); Exec. Order No. 13,175, 65 Fed. Reg. 67,249 (Nov. 9, 2000) (requiring "government-to-government" consultation and coordination with tribes when actions affect Tribal interests).

While the BLM is in the early stages of conducting government-to-government consultation with our Tribes, it is imperative that the BLM continue to meets its trust obligations to all federally recognized Tribes affected by the proposed oil and gas leasing program. In the Yukon Flats region alone, there are ten Gwich'in communities: Arctic Village, Beaver, Birch Creek, Canyon Village, Chalkyitsik, Circle, Fort Yukon, Rampart, Stevens Village, and Venetie. While the present locations of these Tribes may be geographically distant from the Coastal Plain, the cultural and subsistence connections these Tribes ascribe to the area remain intact. Indeed, as the Gwich'in Steering Committee demonstrates in the map below, the traditional territory of these Native people intimately includes the range of the Porcupine Caribou Herd:



As the National Environmental Policy Act ("NEPA") process moves forward, the BLM must consult, on a government-to-government basis, with all Tribes of the Yukon Flats. Additionally, the BLM should expand its list of hearing communities for the draft environmental impact statement ("EIS") to include all villages in the region. Without such outreach, the Tribes believe the BLM will fail to meet the mandate of Exec. Order 13,175 to perform its administrative obligations to consult and coordinate "with tribes when actions affect Tribal interests."

III. Cultural Resources

The term "Neets'ąįį Gwich'in" refers to the descendants of those families who traditionally occupied the territory south of the Brooks Range between the Chandalar and Coleen Rivers.

Although the Neets'ąįį Gwich'in have existed for countless generations, it was not until the early 1900s that their presence was documented in a published account.

The Neets'ąįį are a subset of the larger Gwich'in Nation whose territory extends from what is now known as the northeastern Interior of Alaska to the Yukon and Northwest Territories of Canada. The term "Gwich'in" refers generally to a people; however, when coupled with place-name identifiers, it literally translates to the people of a certain location. At present, the Gwich'in occupy twelve villages located along the Yukon, Chandalar, Porcupine, Black, Arctic Red, Mackenzie, and Peel Rivers and their tributaries. Prior to settling into permanent villages, the Neets'ąįį lived in widely scattered camps, moving in relation to seasonal subsistence resources. Today, the Neets'ąįį are centralized in two villages, Vashrąįį K'ǫǫ (Arctic Village) and Vįįhtąįį (Venetie), located within the boundaries of the 1.8 million-acre Venetie Indian Reserve.

The experiences of the Neets'ąįį Gwich'in, as compared to other Alaska Native groups, are unique in some important respects. Most notably, the Neets'ąįį hold fee simple title to 1.8 million-acres that make up the Venetie Indian Reserve, and have rejected both municipal governments and Native corporation structures. Today, the communities of Vashrąįį K'ǫǫ and Vįįhtąįį are independently governed by their respective Tribal governments, the Arctic Village Council and the Venetie Village Council. The land base is jointly managed by a third entity, the Native Village of Venetie Tribal Government.

For most of our history, Neets'ąįį people lived in scattered camps moving in relation to seasonal resources. Traditional housing models such as *neevyaa zhee* (caribou skin tents) and, later, canvas tents were designed to be transportable enabling families to move between customary use areas. Life "in those days" cycled through periods of abundance and scarcity. A prominent theme of Neets'ąįį oral history is the struggle against starvation. Each season posed unique challenges that often required Neets'ąįį families to continually evaluate and adjust their plans. Sometimes this meant camping together and other times apart. Sometimes it meant moving to areas that were known to be productive in terms of harvesting and other times it meant taking calculated risks in terms of where and when to move.

The pattern of life for Neets'ąįį people in a pre-settlement context generally followed the four seasons: *shin* (summer-time), *khaiits'à'* (fall-time), *khaii* (winter-time), and *shreenyaa* (spring-time). It is important to mention that not all camps followed the same patterns of movement. Different families had their own customary use areas for hunting, trapping, and fishing. While most families operated from a seasonal blueprint, plans had to be continually adjusted to account for changes in weather, resource availability and other external factors.

Around the turn of the Twentieth Century, certain locations became more prominent in terms of supporting several Neets'ąįį families at a given time. Despite the emergence of various semi-permanent settlements, the Neets'ąįį planning model changed little in the first few decades of the Twentieth Century. Most families, in fact, continued to move frequently between trap-lines and hunting and fishing camps.

Since contact, the traditional territory of the Neets'ąįį has been threatened by numerous forces including encroachment, ownership transfers, and resource extraction. In a (post)colonial context,

the Neets'ąįį have frequently found themselves to be in value-conflict with others, particularly on issues relating to the use and management of lands and resources.

Before it evolved into a more-permanent settlement, Arctic Village or Vashrąįį K'ǫǫ (meaning "creek along a steep bank") was known as a traditional fishing spot. Vashrąįį K'ǫǫ was chosen as the site for a permanent settlement because of the supply of both animals and fish. The first cabin was built at Vashrąįį K'ǫǫ in 1909. Although the appearance of cabins suggested a transition to a permanent settlement, many years would pass before Vashraii K'oo would become a year-round place of residence. Most Neets'ąįį families would continue to maintain seasonal camps or traplines along the Koness, Sheenjek, Wind and other rivers. Venetie or Vįįhtąįį was founded in 1895. The location was strategically chosen due to the regular crossing of moose, caribou, and other migrating animals.

Recognizing the millennia-old, and deeply-rooted historic and cultural connection of the Neets'ąįį to the Coastal Plain and the greater Yukon Flats region, the BLM must fully analyze the impacts of oil and gas development in the Coastal Plain on all aspects of cultural resources. The EIS must include an inventory of cultural resources that are important to the people and communities of the study area. Potential impacts from the proposed project to these cultural resources must then be identified, recognized, and evaluated in the EIS. Such resources include not only specific land and water areas, sites and structures, but plants and animals, fish and water, and human cultural, spiritual, and other relationships with nature and the environment.

Additionally, the BLM must in good faith engage in the Section 106 process of the National Historic Preservation Act ("NAHP") and its implementing regulations[6] and, in consultation with the Tribes, identify and document historic properties within the area of potential effect, analyze the potential effects to those properties, and develop a plan to avoid, minimize, and mitigate the adverse effects to those properties. In both the NEPA and the NHPA process, the BLM cannot rely solely on archaeological surveys and research to document and identify cultural resources and historic properties.

IV. Subsistence Impacts

In 1983, Richard A. Caulfield led a research effort on subsistence harvests in the communities of Vashrąįį' K'ǫǫ (Arctic Village), Birch Creek, Chalkyitsik, Fort Yukon, and Vįįhtąįį (Venetie). It is important to note that the data was collected between 1970-1982, which was post-settlement. Figures 9 and 10 (see next page) offer a comparison of annual cycles of resource harvesting activities in the communities of Vashrąįį' K'ǫǫ and Vįįhtąįį. An analysis of the harvest data between the two villages shows a pattern of overlapping dependence on certain animals; however, there were key differences in harvesting by time of year and by primacy as a primary or secondary activity.

The migratory porcupine caribou herd has long been the most important means of subsistence for the Neets'ąįį Gwich'in. Before the advent of rifles, Neets'ąįį families used to camp around a

[6] *See* 36 C.F.R. pt. 800.

caribou fence (also called corrals or pounds). Caribou fences, from a planning perspective, offer some of the oldest physical evidence of the Neets'ąįį land use patterns.

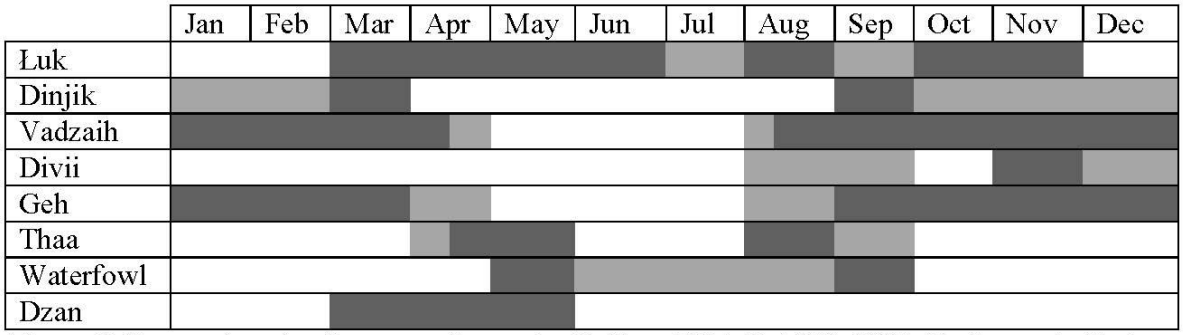


Figure 9. Seasonal cycle of resource harvest activities, Vįįhtąįį, 1970–1982. Dark grey indicates primary activity; light grey indicates secondary activity. Adapted from Caulfield (1983) Annual Cycle for Venetie (p. 178).

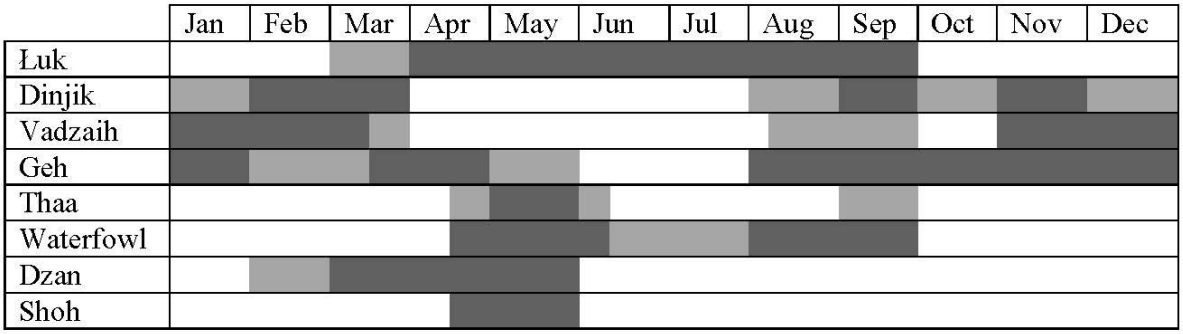


Figure 10. Seasonal cycle of resource harvest activities, Vashrąįį' K'ǫǫ, 1970-1982. Dark grey indicates primary activity; light grey indicates secondary activity. Adapted from Caulfield (1983) Annual Cycle for Arctic Village (p. 98).

The Neets'ąįį's reliance on caribou cannot be overstated. Indeed, caribou form the backbone of Gwich'in culture, providing for the health, well-being, economic security, and food security of Tribal members throughout the region. For this reason, that the BLM must thoroughly analyze not only the potential impacts to caribou, but also how those impacts to caribou will impact the subsistence way of life for the Neets'ąįį in Arctic Village and Venetie.

A. Caribou

Caribou (*Rangifer tarandus*) are the most abundant large terrestrial herbivore in the circumpolar arctic.[7] Known as reindeer in some countries, caribou populations stretch across North America, Europe, and Asia.[8] Although widely distributed, many caribou and wild reindeer populations have faced strong declines, likely due to global changes in climate and anthropogenic landscape change.[9]

[7] Brathen et al. (2007).
[8] Vors & Boyce (2009).
[9] Vors & Boyce (2009); Russell et al. (2015).

Four caribou herds occupy Alaska's arctic region, having their calves on the coastal plain and foothills of the North Slope. These caribou are renowned for their long-distance migrations, covering thousands of miles each year in some of the longest overland movements in the world.[10] These migrations allow caribou to take advantage of varying resources, moving to areas with greater winter food availability and shelter and then returning to calving grounds with fewer predators.[11]

The Arctic National Wildlife Refuge is used, with varying frequency, by three of the four caribou herds that calve on Alaska's North Slope. The Central Arctic Herd uses the Refuge for summer range, including the coastal plain.[12] The Teshekpuk Caribou Herd occasionally uses parts of the Refuge as winter range.[13] The most consistent use of the Refuge is by the Porcupine Caribou Herd, which inhabits the Refuge throughout the year, including using the coastal plain for calving, insect relief, and other summer habitat.[14] While the Porcupine Caribou Herd's calving grounds have shifted in concentration between the Refuge and Canadian Yukon over time in response to food availability,[15] most of the herd has calved on the Coastal Plain in recent years.[16]

Even in years in which calving was concentrated in Canada, the herd used the Refuge coastal plain for food and insect relief after calving.[17] The Coastal Plain also is critical for caribou post-calving as it provides greater concentrations and prolonged availability of plant nitrogen, a limited resource for caribou that allows them to gain weight during the brief summer months, increasing winter survival and subsequent-year reproduction.[18] Being displaced into the Brooks Range, where plant nitrogen is lower and available for a shorter amount of time, could have negative effects on calving success and population growth. Furthermore, key limiting minerals needed by caribou appear to be more available on the coastal plain than in other seasonally-used areas.[19] As the Alaska Department of Fish and Game has stated about the Porcupine Caribou Herd: "Over time the entire extent of the calving grounds may be important for caribou."[20]

Due to its ecological, cultural, and subsistence importance, conservation of the Porcupine Caribou Herd and its habitat in its natural diversity is a primary purpose of the Refuge.[21] The Alaska National Interest Lands Conservation Act addresses international treaty obligations, including the 1987 Porcupine Caribou Herd Conservation Agreement between the United States and Canada, providing the opportunity for continued subsistence uses of caribou and other Refuge resources purposes of the Refuge.[22]

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[10] Fancy et al. (1989); Bergman et al (2000); Schaefer & Mahoney (2013).
[11] Person et al. (2007); Dau (2011), Joly (2012).
[12] Arthur & Del Vecchio (2009); Lenart (2015).
[13] Person et al. (2007).
[14] Caikoski (2015).
[15] Griffith et al. (2002).
[16] McFarland et al. (2017).
[17] Griffith et al. (2002).
[18] Barboza et al. (2018).
[19] Oster et al. (2018).
[20] Caikoski, at 15-11 (2015).
[21] Pub. L. No. 96-487, Title III, § 303(2)(B)(i), 94 Stat. 2371 (1980) (Title III of ANILCA is not codified).
[22] *Id.* § 303(2)(B)(ii)-(iii).

1. Development Impacts on Caribou

Studies of the Central Arctic Herd in relation to the Prudhoe Bay development area and expansion to the west of the Coastal Plain provide a guideline about possible effects of energy development on caribou calving and migration within the Arctic National Wildlife Refuge. The Central Arctic Herd historically used two calving grounds, one in the west between the Colville and Kuparuk rivers and one in the east between the Sagavanirktok and Canning rivers.[23] As development expanded from Prudhoe Bay, caribou using the western calving grounds, where new development occurred, shifted south.[24] Those in the east, outside of main development areas, did not shift.[25] This shift away from new development likely had consequences for caribou. Food availability was lower for development-exposed caribou that shifted calving areas[26] and these caribou showed lower calf body mass[27] and birth rate,[28] though the herd still grew through this period.[29] A review by the United States Geological Survey ("USGS") concluded there was no clear biological explanation for the shift in concentrated calving in the west, implicating petroleum development as its likely cause.[30] The observation that only the development-exposed portion of the herd showed this shift in calving location casts doubt upon alternative explanations, such as the timing of snowmelt.

The sensitivity to development of female caribou about to give birth and those with young calves has been well documented. Studies of the Central Arctic Herd following expansion of the Kuparuk Development Area, west of Prudhoe Bay, found that use of areas by caribou near development declined after infrastructure was established[31] and was lower than expected within four kilometers of roads.[32] While one study reported increasing density of caribou calves within one kilometer of roads in the Kuparuk Development Area,[33] this study was criticized for not taking into account the overall decrease in caribou numbers within the development area when interpreting their findings.[34] This decrease in numbers occurred despite a rapid increase in herd size during this period and has been suggested to reflect a shift of caribou away from the area of concentrated development.[35] Caribou with calves also tend to occur farther from development than those without calves and tend to occur less in areas and at times of higher human activity.[36] Furthermore, females about to give birth or with very young calves tend to avoid, or are less likely to cross, roads and pipelines during the calving season.[37]

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[23] Lenart (2015).
[24] Wolfe (2000); Noel et al. (2004); Cameron et al. (2005); Joly et al. (2006); Lenart (2015).
[25] Wolfe (2000); Russell & McNeil (2005).
[26] Wolfe (2000); Griffith et al. (2002).
[27] Arthur & Del Vecchio (2009).
[28] National Research Council (2003); Cameron et al. (2005).
[29] Lenart (2015).
[30] Griffith et al. (2002).
[31] Cameron et al. (1992); Dau & Cameron (1986).
[32] Cameron et al. (2005).
[33] Noel et al. (2004).
[34] Joly et al. (2006).
[35] *Id.*
[36] Haskell et al. (2006).
[37] Wolfe et al. (2000); Griffith et al. (2002).

Insect activity, primarily that of mosquitoes and oestrid flies, has a strong influence on caribou space use, leading caribou to seek areas of relief from insects, such as the coast, gravel bars and elevated areas.[38] Harassment due to insects can have a negative effect on caribou populations, leading to lower rates of calves being born in years following high insect activity.[39] Caribou may also use areas around infrastructure during periods of moderate to high insect activity.[40] Nevertheless, observations of lower reproduction rates following years of high insect activity for caribou occupying relatively developed areas compared to those occupying less developed areas led the National Research Council to conclude that by altering caribou movements development "probably exacerbates the adverse effects of insect harassment."[41] This is of grave concern as warming conditions in the Arctic are leading to earlier growth and increased survival of mosquitoes.[42]

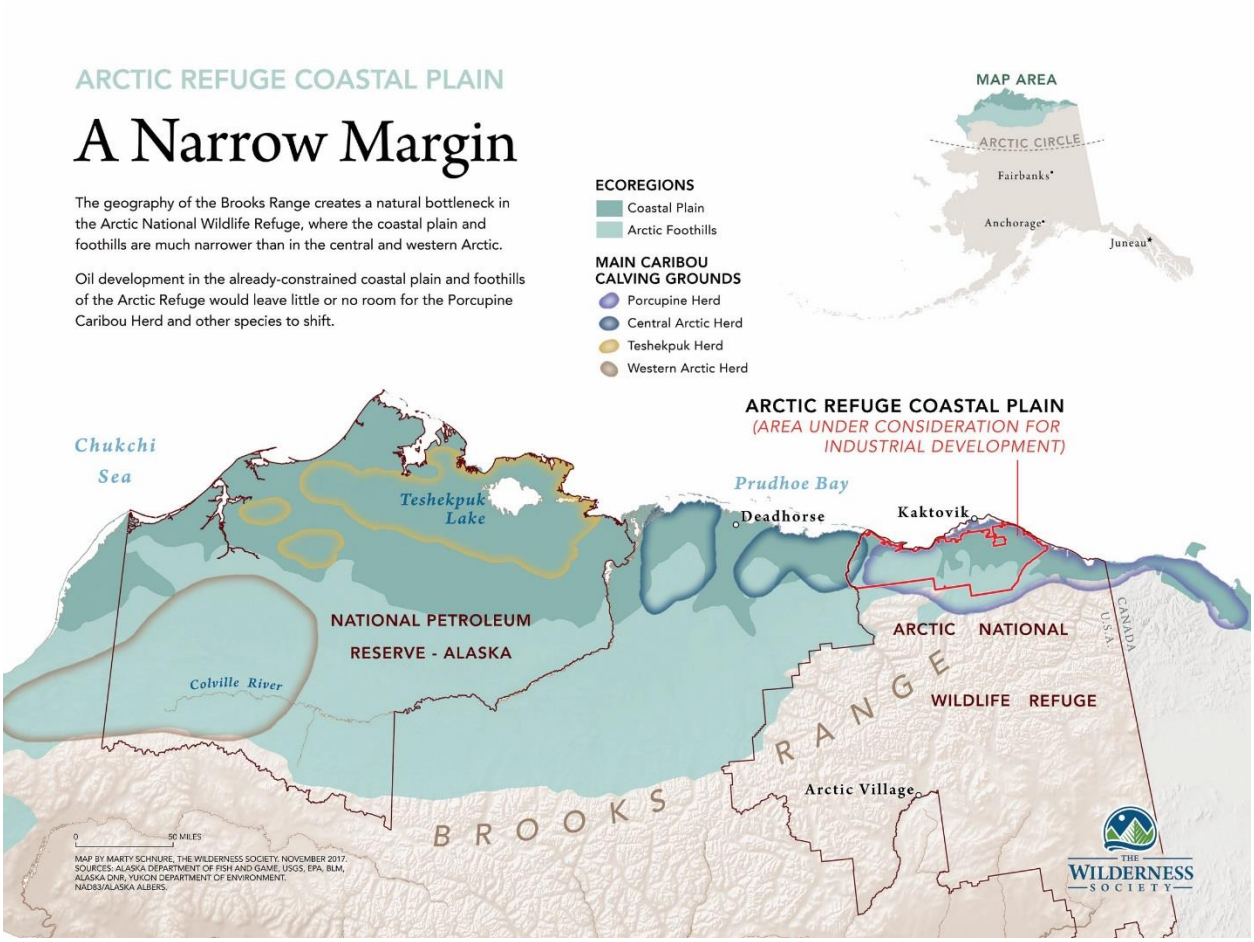
Some have argued that caribou habituate to human activity, learning not to fear it over time.[43] The evidence for this is equivocal at best. A search of the scientific database *Web of Science* for studies of caribou habituation conducted in November 2017 revealed only three peer-reviewed studies of caribou habituation to oil and gas activity. Two of these look at habituation within the Central Arctic Herd.[44] While both claimed to show evidence of habituation, one study suggests this is based largely on use of areas closer to infrastructure during the post-calving period, when insect harassment is a dominant driver of caribou space use.[45] Calving caribou only moved closer to infrastructure during the calving period in one of the three years evaluated.[46] The second study found no evidence of habituation across years.[47] They observed greater percentages of calves and numbers of caribou per kilometer surveyed in years with earlier snowmelt and inferred this as evidence that caribou habituated to infrastructure during each year but point out that "[t]he available data were few, so our results may benefit from further verification or falsification."[48] The third study used 27 years of location data for the Porcupine Caribou Herd to examine winter distribution responses to various human infrastructure and disturbance, including both seismic lines and well sites, as well as non-energy infrastructure.[49] They found a decreasing response of caribou to human infrastructure over time, but concurrent decreases in oil and gas activities made it difficult to determine whether this was due to habituation or to regeneration of natural habitats and processes after the cessation of human activities.[50] Other studies of ungulates have failed to find strong evidence of habituation to industrial development and activity. Boulanger et al. (2012) examined caribou disturbance responses near a diamond mine in Canada and found variation in avoidance responses over time, but no clear evidence of habituation. Similarly, recent research on mule deer (*Odocoileus hemionus*) in the contiguous United States found that the deer did not

[38] Pollard et al. (1996).
[39] National Research Council (2003).
[40] Pollard et al. (1996).
[41] National Research Council, at 115 (2003).
[42] Culler et al. (2015).
[43] *E.g.*, BLM (2018).
[44] Haskell et al. (2006); Haskell & Ballard (2008).
[45] Haskell et al. (2006).
[46] *Id.*
[47] Haskell & Ballard (2008).
[48] *Id.* at 628.
[49] Johnson & Russell (2014).
[50] *Id.*

habituate to energy development, even after a fifteen-year period and intensive mitigation efforts.[51] After discussing habituation, a group of caribou experts concluded that past experiences suggest that the Porcupine Caribou Herd will show "a low degree of habituation, particularly of maternal cows, to the presence of development."[52] This is a topic that requires further scientific investigation to allow adequate determination of the possible effects of oil and gas development. The current scientific literature does not justify an assumption of habituation for caribou.

2. Application of Current Scientific Understanding to the Porcupine Caribou Herd

It is likely that the responses to development observed in the Central Arctic Herd will similarly apply to the Porcupine Caribou Herd. In fact, the USGS pointed out numerous reasons why responses may be greater in the Porcupine Caribou Herd compared to the Central Arctic Herd.[53] One major factor is that the coastal plain is narrower within the Refuge compared to the main Central Arctic Herd range, leaving less room for shifts in space use.



[51] Sawyer et al. (2017).
[52] Elison et al., at 21 (1986).
[53] Griffith et al. (2002).

Another is that the expansion of development and the shift in Central Arctic Herd calving occurred during a period of relatively favorable environmental conditions. Future environmental changes, due to natural fluctuations or climate change, may reduce the ability of caribou to accommodate range shifts. As the National Research Council pointed out in its 2003 report:

> [A]lthough the accumulated effects of industrial development to date have not resulted in large or long-term declines in the overall size of the Central Arctic Herd, the spread of industrial activity into other areas that caribou use during calving and in summer, especially to the east where the coastal plain is narrower than elsewhere, would likely result in reductions in reproductive success, unless the degree to which it disturbs caribou could be reduced.[54]

Success of mitigation measures to reduce disturbance to movement due to physical barriers has not been adequately determined.[55] However, the shift in Central Arctic Herd calving distribution to the south in the Milne Point and Kuparuk areas was maintained in spite of the use of structures intended to mitigate impacts, like elevated pipelines and reduced road density.[56]

There is still much unknown about caribou and the factors that influence their population dynamics. It is important to note that while caribou populations naturally fluctuate, the USGS points out that "reduced calf survival may slow the rate of increase during positive phases of the growth curve of the herd and increase the rate of decline during the negative phases of the herd's growth curve."[57] Three expert groups evaluated potential consequences of energy development on the Refuge coastal plain for the Porcupine Caribou Herd.[58] Techniques analyzed development scenarios, population simulation models, food availability, predator density, and more. All three indicated likely declines in calf survival, with effects on herd distribution and/or population growth, in response to coastal plain development.[59] These analyses and the concerns raised above urge care and a cautionary approach for sensitive Refuge coastal plain habitat.

The BLM must fully analyze these and other reasonably foreseeable direct, indirect, and cumulative impacts of all phases of oil and gas development on the Porcupine Caribou Herd, utilizing the best available scientific information.

3. Data gaps

Understanding space use by species is fundamental to their management. Information regarding critical habitat and species movement patterns over time enables decision making that balances alternative land use objectives. Protecting fish and wildlife species and their habitats in their natural diversity is among the primary objectives of the Refuge.[60] Previous land management decisions by the BLM in northern Alaska seeking a balance between species conservation and resource development, such as the 2013 National Petroleum Reserve–Alaska ("NPR-A")

[54] National Research Council, at 6 (2003).
[55] Lenart (2015).
[56] Griffith et al. (2002).
[57] Griffith et al., at 32 (2002).
[58] Elison et al. (1986); Griffith et al. (2002); Russell & McNeil (2005).
[59] Elison et al. (1986); Griffith et al. (2002); Russell & McNeil (2005).
[60] *See* Pub L. No. 96-487, § 303(2)(B)(1).

Integrated Activity Plan ("IAP"), have used information about habitat values for caribou and potential effects of development to inform decisions about where leasing, exploration, and oil and gas development would be allowed.[61] Similar information has not been made available for the Porcupine Caribou Herd in the Refuge and nearby areas. To enable decisions about conservation and development in the NPR-A, scientific studies were conducted and published in peer-reviewed journals. Those studies documented areas of concentrated use by caribou across seasons, based on radio and satellite telemetry data,[62] relative habitat suitability for key caribou periods, such as calving,[63] and a quantitative analysis of reduction in high quality calving habitat under different development alternatives, based on the best available scientific understanding of caribou response to development and of oil and gas availability.[64] This array of information was used to help select the final preferred alternative for the 2013 IAP.[65] The BLM must do the same to inform its leasing EIS for the Coastal Plain.

While some depictions of Porcupine Caribou Herd habitat use exist in terms of general polygons,[66] these mostly only depict habitat use prior to 2005.[67] Such polygon-based depictions of use provide a general depiction of habitat use and important areas, but do not provide the type of resolution or fine-scale information needed to inform specific land use decisions or analyses of development impact similar to that previously used by the BLM.[68] To our knowledge, only one study provides a kernel density-based analysis which can help identify key areas[69] and this only includes caribou location data through 2001. Thus, the BLM should conduct a resource selection function analyses to identify relative habitat value for Porcupine caribou in a spatially continuous manner based on environmental factors.[70] Resulting information should be fed into a simulation analysis similar to that used previously by the BLM to evaluate leasing alternatives for the Refuge coastal plain, including a robust no-action alternative.[71] As the agency has already demonstrated in the NPR-A IAP, this information is essential to the BLM's analysis of alternatives.

4. Climate change and caribou

Climate change is disproportionately affecting the Arctic, with warming occurring more strongly than the global average.[72] Caribou population dynamics have been shown to be influenced by broad-scale climate patterns,[73] though in many cases local factors may exert population pressures as strong as, or stronger, than climate.[74]

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[61] BLM (2013).
[62] Person et al. (2007).
[63] Wilson et al. (2012).
[64] Wilson et al. (2013).
[65] BLM (2013).
[66] Hemming (1971); Elison et al. (1986); Griffith et al. (2002); Russell & McNeil (2005); McFarland et al. (2017).
[67] *See* McFarland et al. (2017) (which depicts calving polygons from 2012-2017 and winter polygons from 2008-2017).
[68] Wilson et al. (2013).
[69] Griffith et al. (2002).
[70] *C.f.* Wilson et al. (2012).
[71] Wilson et al. (2013).
[72] IPCC (2013).
[73] Joly et al. (2011); Mallory et al. (2018).
[74] *E.g.*, Mahoney et al. (2016); Uboni et al. (2016).

Climate change has the potential to both negatively and positively influence caribou populations. Warming winter conditions in the Arctic have led to an increase in rain-on-snow events.[75] Such events lead to thick ice cover when temperatures subsequently decrease, blocking access to food for caribou and other species.[76] The potential of such icing events to decrease body condition of overwintering caribou is of great concern, as late winter body mass of female caribou is strongly linked to calf production and survival, influencing population growth rates.[77] These icing events are expected to continue to increase as the Arctic keeps warming and sea ice retreats.[78]

Shifts in climate also are influencing the timing of snowmelt and plant green-up and growing season length across the globe. In northern Alaska, surveys show earlier plant greening and longer growing seasons.[79] While this could increase food availability, warming may also reduce forage quality for caribou, as has been seen in other systems.[80] Thus far, however, forage quality does not seem to have declined during the calving period.[81] Warming conditions also have been associated with expansion of shrubs in the Arctic.[82] Experts suggest that decreased edibility of shrubs for caribou may explain why patterns of Arctic greening are accompanied by population declines in caribou.[83]

Potentially contradictory effects of longer, warmer growing seasons and increased rain on snow events make cumulative effects of climate change on caribou difficult to determine. The variability in potential responses of caribou to changing climate in the arctic calls for increased studies to understand how caribou are likely to respond to warming conditions and for monitoring to determine whether predicted patterns are met. Analyses have been done in Canada to evaluate net effects that consider both positive and negative influences under different climate scenarios.[84] Adapting such studies to the Alaskan Arctic may help provide increased understanding of climate effects and allow cumulative analyses of potential stresses from climate change and resource development.

The BLM must fully analyze existing and reasonably foreseeable impacts of climate change on caribou, including in the environmental baseline and affected environment, and across alternatives.

B. Fish

Freshwater and near-shore waters of the Coastal Plain of the Arctic Refuge contain numerous Arctic fish species that are sensitive to stressors from oil and gas development. The two most abundant anadromous fish species, Dolly Varden (*Salvelinus malma*) and Arctic Cisco (*Coregonus*

[75] Hansen et al. (2011); Hansen et al. (2014); Forbes et al. (2016).
[76] Hansen et al. (2011); Hansen et al. (2013).
[77] Hansen et al. (2011); Albon et al. (2017); Veiberg, et al. (2017).
[78] Hansen et al. (2014); Forbes et al. (2016).
[79] Gustine et al. (2017).
[80] Barboza et al. (2018).
[81] Gustine et al. (2017).
[82] Tape et al. (2016); Fauchald et al. (2017).
[83] *See* Fauchald et al. (2017).
[84] *E.g.*, Tews et al. (2007).

autumnalis)[85] are also the most harvested subsistence fish resources.[86] Arctic Cisco have not been documented using freshwater habitat within the Coastal Plain, but extensively use nearshore habitat within the Beaufort Seas as essential foraging habitat between their spawning migration to the Mackenzie River and overwintering location in the Colville River Delta.[87] Dolly Varden have two life forms, and both resident and anadromous forms are present in freshwater and nearshore habitats.[88] Other fishes within the Coastal Plain freshwater habitat include Lake Trout (*Salvelinus namaycush*), Arctic Grayling (*Thymallus arcticus*), Burbot (*Lota lota*), Ninespine Stickleback (*Pungitius pungitus*), and Slimy Sculpin (*Cottus cognatus*).[89] The delta and lower sections of many rivers within the Coastal Plain contain extensive essential fish habitat such as rearing areas for juvenile Dolly Varden[90] as well as distinct overwintering areas located at perennial springs and deep sections of rivers.[91] Another type of essential fish habitat, spawning areas, are located upstream of the Coastal Plain. Many Dolly Varden either migrate downstream after spawning and overwinter at perennial springs within the Coastal Plain or do so in nearby watersheds.[92]

Due to the limited amount of water available in winter, ice roads built using water extracted from rivers will likely have both short and long-term impacts on fish populations. This could include direct loss of overwintering habitat, reduced dissolved oxygen concentrations, and increased stress and mortality of Dolly Varden or other Arctic fish.[93] Seismic exploration has the potential to cause short-term, but severe, impacts to overwintering fish and could include negative behavioral changes (*e.g.*, fleeing, herding), hearing loss, and direct mortality of fish and embryos.[94] Construction of gravel and ice roads, pipelines, and other infrastructure with river crossings would mobilize sediment, with associated impacts to rearing, spawning, and overwinter habitat,[95] as well as the health and behavior of fish.[96] Within floodplain channels in-filling and various types of stream and river crossings have the potential to cause long-term changes to the natural flow regime, and restrict channel movement and fish passage, causing negative impacts to fish populations.[97] Additionally, with the construction and maintenance of a gravel road network, numerous other minor to severe impacts may occur, such as hydrocarbon and sump contamination,[98] introduction of non-native species and increased fishing pressure. All of which would have both short and long-term impacts to fish populations.[99]

The leasing EIS must fully analyze all of the reasonably foreseeable direct, indirect, and cumulative impacts to fish and subsistence biological resources of the Coastal Plain associated with all phases of development. In order to properly under take this analysis, the BLM must:

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[85] Craig (1984).
[86] Bacon et al. (2009).
[87] Reist & Bond (1988); Brown (2008)
[88] Ward and Craig (1974).
[89] U.S. Fish and Wildlife Serv. (2015).
[90] Ward & Craig (1974).
[91] Craig & McCart (1974); Viavant (2005); Brown et al. (2014).
[92] Brown et al. (2014).
[93] *E.g.*, Gaboury & Patalas (1984); Evans (2007); Cott et al. (2008).
[94] McCauley et al. (2003); Popper et al. (2005).
[95] *E.g.*, Robertson et al. (2006).
[96] *E.g.*, Newcombe & Macdonald (1991); Reid et al. (2003); Robertson et al. (2006).
[97] Semple et al. (1995).
[98] Schein et al. (2009); Kanigan and Kokelj (2010).
[99] Schindler (2001).

1. Identify all water withdrawal sites, including lakes and rivers, and fully analyze how winter fish presence will be accurately detected and adverse impacts avoided, minimized, and mitigated;
2. Analyze and articulate how essential fish habitat (spawning, overwintering, and rearing) will be managed or avoided, so that development does not have negative impacts on fish populations;
3. Analyzing and articulate how stream crossing structures within floodplain channels (50 year-200 year) will be managed to minimize impacts to essential fish habitat, the natural flow regime, and aquatic ecological processes;
4. Analyze and identify the physiological and behavioral impacts associated with sediment mobilization and deposition on Arctic fish;
5. Analyze and identify how temporary and permanent fish passage restrictions will be avoided or minimized to allow seasonal movement patterns by fish species such as Dolly Varden and Arctic Grayling; and
6. Articulate how important subsistence fish species will be monitored to detect short and long-term negative impacts to subsistence fisheries.

V. Human Health Impacts

The NEPA requires federal agencies to take a hard look not only at the potential impacts to the natural environment, but to the human environment as well. As such, it is incumbent on the agency to thoroughly analyze in the leasing EIS how all phases of a proposed oil and gas leasing program will impact the health of the region's residents, including those residents of Arctic Village and Venetie, the Yukon Flats, and other United States and Canadian communities that are connected to the Coastal Plain through ecological and social systems, like the Porcupine Caribou Herd. All of these communities should be formally identified within the EIS as potentially affected communities ("PAC").

To adequately analyze such human health impacts, the BLM must complete a thorough Health Impact Assessment ("HIA").[100] This type of assessment has an established framework and methodology that will allow the agency to take a hard look at the health impacts of various leasing alternatives and compare them to the "no action" alternative.[101] This analysis needs to focus on how oil leasing, exploration, construction, operation, and the cumulative effects of development will expose residents to health risks, as well as how direct and indirect determinants that positively contribute to health may be compromised by development-related activities.

The HIA will require the BLM to compile comprehensive baseline data to complete a thorough assessment. When analyzing human health, the BLM must comprehensively examine how oil and

[100] *See* Karen Lock, *Health Impact Assessment*, 320 BRITISH MEDICAL J., 1395 (2000).
[101] *See* Alaska Health Impact Assessment Program, *Technical Guidance for Health Impact Assessment in Alaska* (2015), *available at* http://dhss.alaska.gov/dph/Epi/hia/Documents/AlaskaHIAToolkit.pdf.

gas development will impact the numerous health benefits that subsistence resources and practices provide to regional residents. These benefits include: food security and nutrition, social networks, and mental health. While ecosystems are a foundational determinant of the public's health and wellness everywhere, in Alaska's subsistence-based Tribal communities this connection is particularly important.[102]

The HIA must also consider how a Coastal Plain leasing program will impact the region's food security.[103] All three pillars of food security should be examined: food availability, food access, and food use.[104] Within each of these pillars, attention should be given to the importance of nutrition and traditional foods, as well as subsistence. The HIA must examine how oil and gas activities will impact the harvest, preparation, sharing, and consumption of wild resources and subsistence through the lens of dietary, identity, and cultural changes. This should also include an analysis of how changes to the harvesting, preparing, sharing, and consumption of wild resources will impact social networks and community structure within PACs.[105] Social networks contribute significantly to human health outcomes.[106] How these networks may change and how these alterations will impact residents' health must be considered and described.

Examination of how development will impact relationships, including sociocultural and socioeconomic systems relationships to mental health is also necessary. The act of procuring and providing traditional subsistence resources has positive psychological health benefits at the individual and community level. How an oil development program may disrupt traditional practices, cultural identity, and mental health should be analyzed.[107] Moreover, the anxiety and stress of development should also be considered.

Of particular importance to the Tribes is the inclusion in the HIA a risk assessment for subsistence practices impacted by development. The disturbances of oil development are forcing our tribal hunters to travel further from their community to access caribou and other subsistence resources.[108] This increased travel increases the risk of harm and injury because hunters must travel longer distances and have an increased exposure to harsh and often dangerous conditions.

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[102] *See* Philip A. Loring & S.C. Gerlach, *Food, Culture, and Human Health in Alaska: An Integrative Health Approach to Food Security*, 12 ENVIRONMENTAL SCIENCE & POLICY 466 (2009).
[103] *See* Janell Smith et al., *Measurable Benefits of Traditional Food Customs in the Lives of Rural and Urban Alaska Inupiaq Elders* (2009), *available at* http://www.alaskaanthropology.org/wp-content/uploads/2017/08/akanth-articles_275_v7_n1_Smith-Saylor-Easton-Wiedmen-Elders.pdf.
[104] *See* World Health Org., *Trade, Foreign Policy, Diplomacy, and Health: Food Security* (2014), *available at* http://www.who.int/trade/glossary/story028/en/.
[105] *See* Gary Kofinas et al., *Subsistence Sharing Networks and Cooperation: Kaktovik, Wainwright, and Venetie, Alaska. BOEM Report 2015-023DOI; AFES Report MP 2015-02* (2016).
[106] *See* Kristin P. Smith & Nicholas A. Christakis, *Social Networks and Health*, 34 THE ANNUAL REV. SOCIOLOGY 405 (2003).
[107] *See*: N.K. McGrath-Hanna et al., *Diet and Mental Health in the Arctic: Is Diet an Important Risk Factor for Mental Health in Circumpolar Peoples? – Review*, 63:3 INTERNATIONAL J. CIRCUMPOLAR HEALTH 228 (2003).
[108] *See* Final Supplemental Environmental Impact Statement for the Greater Mooses Tooth One Development Project, (2014).

Finally, the BLM must fully consider and integrate the impacts of climate change on human health into the HIA. Specifically, the agency must consider how climate change affects the social and environmental determinants of health within the region for PACs.[109] This analysis should include, but not be limited to: mental health, air quality, impacts to subsistence resources and practices, and food security. Ongoing and reasonably foreseeable climate change impacts and stressors must be integrated into the BLM's baseline and across all alternatives.

VI. Air and Water Quality

A. Air Quality

The leasing EIS must rigorously assess the significant air quality impacts associated with all phases of an oil and gas development program for the Coastal Plain. Adequate NEPA analysis and compliance with the Clean Air Act will require the BLM to model the air pollution impacts associated with each alternative, ensure prevention of significant deterioration of air quality, fully analyze a suite of enforceable mitigation measures, and address greenhouse gas emissions and climate change impacts associated with all phases of oil and gas development.

B. Water Resources

The Coastal Plain contains a variety of permafrost dominated lentic and lotic ecosystems including large rivers, small beaded streams and both shallow and deep thermokarst lakes that are sensitive to oil and gas development. Compared to the rest of the North Slope Coastal Plain, the area within the Refuge lacks widespread deep lakes to provide water sources for ice roads.[110] Areas that do contain deep lakes will need to be carefully managed for impacts to surface water connectivity, seasonal flow regime patterns, and processes within aquatic ecosystems. Impacts from improper water withdrawals could include loss of overwintering habitat, degraded water quality, loss of littoral habitat and freezing of fish eggs or benthos.[111]

While historically considered as a potential water source for ice roads, lotic environments should be avoided due to the high potential for detrimental aquatic impacts.[112] Due to the lack of available water during the winter months for ice roads, development will likely require construction, maintenance, and use of numerous permanent gravel roads, which in turn have a number of significant impacts.[113] Both short and long-term impacts from roads, stream crossings and development within the riverine floodplain may occur and could include increased sediment transport and deposition, increased frequency of mass wasting and slump events, and degraded water quality and habitat.[114] Associated negative impacts to Arctic fish populations from degraded

[109] *See* Alaska Epidemiology, *Assessment of the Potential Health Impacts of Climate Change in Alaska* (Jan. 8, 2016), *available at* http://www.epi.alaska.gov/bulletins/docs/rr2018_01.pdf.
[110] Trawicki et al. (1991); Lyons and Trawicki (1994).
[111] Gaboury & Patalas (1984); Turner et al. (2005); Cott et al. (2008).
[112] Bendock (1976).
[113] *E.g.*, DFO (2000).
[114] *E.g.*, Newcombe & Macdonald (1991); Robertson et al. (2006)

water quality and habitats are likely to include minor to severe impacts to critical habitat (i.e., spawning, rearing, and overwintering) quality and quantity and to Arctic fish fitness.[115]

In the leasing EIS, the BLM must fully analyze all of the reasonably foreseeable direct, indirect, and cumulative impacts to water resources and hydrology of the Coastal Plain associated with all phases of development. As such, the agency must:

1. Identify water withdrawal amounts under each alternative and fully analyze associated impacts to Arctic fishes;

2. Identify and analyze a full suite of protective measures to avoid, minimize, and mitigate adverse impacts to fish and hydrology associated with water withdrawals;

3. Ensure adequate information on the spatial and temporal variability of water and dissolved oxygen concentrations in lakes within the study area;

4. Identify and analyze a full suite of protective measures for designation, construction, and maintenance of stream crossings to minimize impacts to water quality, natural flow regimes and ecological processes;

5. Ensure that river and stream setbacks minimize impacts to riparian and floodplain processes; and

6. Fully analyze physiological and behavioral impacts on Arctic fish from impacts to water resources associated with all phases of oil and gas development.

VII. Cumulative Impacts

The leasing EIS must fully consider and analyze all reasonably foreseeable direct, indirect, and cumulative impacts associated with all phase of an oil and gas development program for the Coastal Plain.

A. Leasing Impacts

As part of analyzing the likely impacts of leasing on the Coastal Plain, the BLM must consider the impacts to management for other resources, including: wildlife habitat, subsistence, recreation, and tourism. Issuing an oil and gas lease is an irretrievable commitment of resources. Oil and gas leases confer "the right to use so much of the leased lands as is necessary to explore for, drill for, mine, extract, remove and dispose of all the leased resource in a leasehold."[116] Therefore, issuing a lease constitutes an "irreversible and irretrievable commitment of resources."[117] Once leased, regardless of development potential or actual ongoing development, federal agencies take the

[115] *E.g.*, Goldes et al. (1988); Berg and Northcote (1985); Reynolds et al. (1989).
[116] *See*, e.g., *New Mexico ex rel. Richardson v. Bureau of Land Management*, 565 F.3d 683, 718 (10th Cir. 2009); *Pennaco Energy, Inc. v. U.S. Dep't of Interior*, 377 F.3d 1147, 1160 (10th Cir. 2004).
[117] *New Mexico*, 565 F.3d at 718.

position that leased land cannot be proactively managed for wildlife, recreation, or land conservation. Once the BLM leases land to the fossil fuel industry, management for conservation, even on sensitive lands with important wildlife habitat, wilderness values, or cultural resources, is essentially abandoned.

B. Seismic Exploration Impacts

The impacts of seismic surveys conducted during the winter must be analyzed as part of considering the impacts of an oil and gas development program for the Coastal Plain. Seismic surveys taking place during the winter will industrialize the Coastal Plain. Source and receiver lines typically would be placed just a few hundred feet apart. Some of the significant adverse impacts from seismic activities include: noise and other impacts on wildlife, including denning polar bears, damage to the tundra by moving heavy equipment, operating a mobile camp with hundreds of people, use of large amounts of water in a water-limited region, discharge of wastewater to the environment, and effects to wildlife energetics and activities by performing seismic work beyond the short winter season.

C. Infrastructure Impacts

The BLM must thoroughly analyze impacts associated with infrastructure under all development scenarios being considered, including providing estimates of surface acreage disturbance. Oil and gas exploratory drilling and production would have a variety of significant impacts associated with infrastructure. These include impacts associated with the physical footprint of the infrastructure, acquisition of materials such as gravel to build the infrastructure, and infrastructure operations. Under full development scenarios, exploratory and production-related drilling infrastructure could potentially sprawl over vast stretches of the Coastal Plain, greatly exceeding the development area provided for in the 2017 Tax Cuts and Jobs Act.[118]

Finally, the BLM must fully analyze the impacts of the development of road infrastructure and well pad construction. The construction and maintenance of permanent, ice, and snow roads has significant and adverse impacts on wildlife, habitat, water resources, and subsistence that must be fully analyzed. Permanent road construction and maintenance requires gravel transport and mining, with associated impacts on wildlife habitat. Stream crossings for roads require bridges or adequately sized and maintained culverts to ensure water flow and adequate fish passage and to prevent creation of flooded wetlands. Temporary ice roads require significant water and ice withdrawals which can adversely impact over-wintering fish in lakes. Temporary, compacted snow roads can harm tundra growth, as the snow overlying those areas likely will require more time to melt during the very short growing season, and snow compaction can affect surface flows. Roads fragment habitat, with associated avoidance behavior by caribou and other wildlife. Raised permanent roads built to protect permafrost make subsistence travel more difficult. Similarly, gravel well pad construction and operation will adversely affect wildlife habitat. Wildlife generally

[118] Pub. L. No. 115-97, 131 Sta. 2054 (Dec. 22, 2017).

avoid pads because they are noisy areas with humans around. Pads also require significant quantities of mined gravel.

D. Spill Impacts

The BLM must analyze all reasonably foreseeable impacts associated with potential blowouts and spills. Oil exploration and production will inevitably result in a blowout, upturn, or spill. Operators cannot prevent all exploratory and production-related blowouts because companies may encounter unexpected or changing subsurface conditions that have not been adequately addressed during drilling. Similarly, major and minor spills can occur from corrosion, human errors, inadequate maintenance, earthquakes, infrastructure failures, and freezing. Inadequate leak detection and valve placement for gathering and transmission pipelines can also lead to larger spills. And management and disposal of drilling muds and cuttings, produced water and other forms of wastewater including oil-contaminated storm-water, and hydraulic fracturing related chemicals and wastes can have significant impacts as well. The agency must also fully analyze and consider how it will ensure operators will comply with all relevant lease and state and federal regulatory requirements, particularly given the remoteness of the region and associated challenges with and costs of performing regulatory inspections.

E. Other Impacts

The BLM must fully analyze all other impacts associated with oil development in the Coastal Plain, including, but not limited to: air and noise pollution, waste generation, surface water use, and restrictions on access for subsistence.

Furthermore, the BLM cannot rely on directional drilling to claim that numerous significant impacts associated with development will be eliminated or mitigated. Directional or extended reach drilling for oil has the same impacts as vertical well drilling. The limited range of directional drilling makes in ineffective in avoiding, minimizing, and mitigating the impacts of vertical well drilling.

VIII. International Obligations

While the Refuge and the Coastal Plain lie wholly within the United States, they are part of a larger human and natural environmental that spans international borders. Any NEPA analysis of the Coastal Plain must consider these many complex transboundary issues. Some such issues arise from international agreements and treaties the United States is subject to, such as the Porcupine Caribou Herd Conservation Agreement ("the Agreement") between the United States and Canada, while other issues stem from NEPA obligations to consider transboundary environmental and associated socio-economic effects. It is critically important for the BLM to cooperate and coordinate closely on these transboundary issues with relevant Canadian government officials, agencies, Canadian First Nations—specifically the Gwich'in communities of Old Crow, Fort McPherson, Tsiigehtchic, Aklavik, and Inuvik—as well as with the U.S. Fish and Wildlife Service,

the United States Department of State, other federal and state agencies, and the federally recognized Tribes in the region.

A. Porcupine Caribou Herd Conservation Agreement

One of Congress's express purposes for the Refuge is "to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats."[119] The Agreement was signed on July 17, 1987, by United States Secretary of the Interior Don Hodel and his Canadian counterpart Thomas McMillan. The Agreement recognizes that the Porcupine Caribou Herd:

> [R]egularly migrates across the international boundary between Canada and the United States of America and that caribou in their large free-roaming herds comprise a unique and irreplaceable natural resource of great value which each generation should maintain and make use of so as to conserve them for future generations.[120]

The Agreement further recognizes "the importance of conserving the habitat of the Porcupine Caribou Herd, including such areas as calving, post-calving, migration, wintering and insect relief habitat."[121] The Agreement specifically defines the herd's habitat as "the whole or any part of the ecosystem, including summer, winter and migration range, used by the Porcupine Caribou Herd during the course of its long-term movement patterns."[122]

The Agreement's first objective is "[t]o conserve the Porcupine Caribou Herd and its habitat through international cooperation and coordination so that the risk of irreversible damage or long-term adverse effects as a result of use of caribou or their habitat is minimized."[123]

The agreed-upon "conservation" obligations of the two countries are clarified in seven clauses of Article 3 of the Agreement:

1. The Parties will take appropriate action to conserve the Porcupine Caribou Herd and its habitat.

2. The Parties will ensure that the Porcupine Caribou Herd, its habitat and the interests of users of Porcupine Caribou are given effective consideration in evaluating proposed activities within the range of the Herd.

3. Activities requiring a Party's approval having a potential impact on the conservation of the Porcupine Caribou Herd or its habitat will be subject to impact assessment and review consistent with domestic laws, regulations and processes.

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[119] Pub L. No. 96-487, § 303(2)(B)(ii).
[120] Agreement between the Government of Canada and the Government of the United States of American on the Conservation of the Porcupine Caribou Herd (July 17, 1987), *attainable at* www.treaty-accord.gc.ca/text-texte.aspx?id=100687.
[121] *Id.*
[122] *Id*.
[123] *Id*.

4. Where an activity in one country is determined to be likely to cause significant long-term adverse impact on the Porcupine Caribou Herd or its habitat, the other Party will be notified and given an opportunity to consult prior to final decision.

5. Activities requiring a Party's approval having a potential significant impact on the conservation or use of the Porcupine Caribou Herd or its habitat may require mitigation.

6. The Parties should avoid or minimize activities that would significantly disrupt migration or other important behavior patterns of the Porcupine Caribou Herd or that would otherwise lessen the ability of users of Porcupine Caribou to use the Herd.

7. When evaluating the environmental consequences of a proposed activity, the Parties will consider and analyze potential impacts, including cumulative impacts, to the Porcupine Caribou Herd, its habitat and affected users of Porcupine Caribou.

The BLM must address each of the Agreement's seven conservation obligations in the development of its leasing EIS for the Coastal Plain. Oil and gas leasing, together with subsequent related activities will have significant long-term impacts on the Porcupine Caribou Herd and its habitat. As such, the agency must, pursuant to the Agreement, notify and consult with Canada while developing its draft leasing EIS. This effort needs to be done well in advance of BLM's publication of the draft leasing EIS, in order to integrate information and data obtained during the consultation process into the draft.

B. International Porcupine Caribou Board

The Agreement also establishes a bilateral advisory board—the International Porcupine Caribou Board ("the Board")—consisting of four representatives from each country. The Agreement states that the Board "will make recommendations and provide advice on those aspects of the conservation of the Herd and its habitat that require international coordination," including, for example, "the identification of sensitive habitat deserving special consideration."[124] Under the Agreement, the two countries will "promptly notify the Board of proposed activities that could significantly affect the conservation of the Porcupine Caribou Herd or its habitat and provide an opportunity to the Board to make recommendations."[125] The two countries are not required to abide by any Board recommendations, but they are expected to "consider and respond" to any such recommendations.[126]

The Agreement specifies several topics for the Board to address in its recommendations and advice. These topics raise relevant issues that should be considered in the EIS:

1. The sharing of information and consideration of actions to further the objectives of this Agreement at the international level;

[124] *Id*.
[125] *Id*.
[126] *Id*.

2. The actions that are necessary or advisable to conserve the Porcupine Caribou Herd and its habitat;

3. Cooperative conservation planning for the Porcupine Caribou Herd throughout its range;

4. When advisable to conserve the Porcupine Caribou Herd, recommendations on overall harvest and appropriate harvest limits for each of Canada and the United States of America taking into account the Board's review of available data, patterns of customary and traditional uses and other factors the Board deems appropriate; and

5. The identification of sensitive habitat deserving special consideration.

It remains unclear to the Tribes what process the BLM will undertake to engage with the Board in the development of the EIS. The answer is of critical importance to the Tribes, as one of the seats on the Board is reserved for a Gwich'in representative. Presently, the Tribes have nominated, with the support of the other Tribal councils in the region, Dr. Charlene Stern to serve as the Gwich'in representative. In moving forward with this EIS process, the BLM must comply with the Agreement and utilize the Board to obtain its recommendations and advice regarding the proposed oil and gas leasing program in the Coastal Plain. In doing so, it is critically important that the Board have adequate opportunity to collect, share, and discuss all the relevant and most up-to-date information pertaining to the effects of oil and gas development on the Herd and to make its recommendations before the BLM completes and releases the Draft EIS for public comment. Otherwise, the Agency's proposed action and alternatives will not reflect the input and recommendations of the Board and, likewise, the public will not be able to comment on the alternatives and the analysis of environmental effects in the Draft EIS in light of the Board's input and recommendations. If the Draft EIS precedes the Board's recommendations and advice, then it will be very likely that the BLM will have to produce a Supplemental Draft EIS and circulate it for public comment.

C. Other Treaties

1. Polar Bear

The 1976 Agreement on the Conservation of Polar Bears between the United States and the governments of Canada, Denmark, Norway, and Russia recognizes the responsibilities of circumpolar countries for coordinating actions to protect polar bears. Specifically, this multilateral agreement commits each associated country to sound conservation practices by protecting the ecosystem of polar bears, with special attention to denning areas, feeding sites, and migration corridors based on best available science through coordinated research.

The BLM must consider the United States' obligations under this treaty and ensure that any action it takes in the leasing and potential development of the Coastal Plain complies with the treaty. The Tribes note that the Coastal Plain of the Arctic Refuge provides very important habitat for polar

bears. The Coastal Plain has the highest density of on-shore polar bear dens found anywhere in America's Arctic, and more and more bears are using on-shore habitat as sea ice diminishes due to climate change. In developing the proposed oil and gas leasing program and alternatives the BLM must consider how such actions will affect polar bear denning areas, feeding sites, and migration corridors, including corridors between Alaska and Canada.

2. Migratory Birds

All bird species that utilize the Arctic Refuge, with the exception of grouse and ptarmigan, are covered by the Migratory Bird Treaty Act of 1918 and its amendments.[127] Multiple species of migratory waterfowl from six continents rely upon the Coastal Plain lagoon and wetlands for nesting and breeding grounds, including threatened vulnerable species of Steller's Eiders. The migratory waterfowl flying north to the Coastal Plain represent one of the most important historic and contemporary subsistence species to the Neets'ąįį Gwich'in. Historically, the spring waterfowl harvest presented the first opportunity of the year to take fresh game after a long winter, ensuring that tribal members avoided hunger during spring break-up. The return of waterfowl in the spring continues to be celebrated in Venetie and Arctic Village, with traditional lotteries and games associated with the first harvests of the year.

Because of the critical importance of migratory birds to the Neets'ąįį Gwich'in, the BLM must conduct a comprehensive analysis in the EIS to ensure impacts from leasing and transportation corridors to all species are fully understood and mitigated, and to ensure compliance with the Migratory Bird Treaty Act of 1918.

IX. Conclusion

As discussed above, the Tribes fully expect the BLM to comprehensively address and analyze the numerous impacts posed to the natural and human environment by the proposed oil and gas leasing program on the Arctic Refuge's Coastal Plain. In doing so, the Tribes also expect the BLM to adhere to the established laws and policies of the United States recognizing and affirming the sovereignty of the Tribes and the rights of their tribal citizens. The Tribes look forward to further developing the BLM's analysis of these and all other issues as cooperating agencies throughout the NEPA process.

[127] 16 U.S.C. §§ 703-712.

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