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Washington, D.C. 20240

William Perry Pendley, Acting Director
U.S. Bureau of Land Management
1849 C Street N.W.
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Chad Padgett, State Director
Bureau of Land Management, Alaska
222 West 7th Avenue, Stop 13
Anchorage, AK 99513

August 24, 2020

RE: Notice of Violation of the Endangered Species Act Section Associated with Oil and Gas Leasing Activities on the Coastal Plain of the Arctic National Wildlife Refuge

Dear Mr. Bernhardt, Mr. Pendley, and Mr. Padgett,

On behalf of the Gwich'in Steering Committee, Alaska Wilderness League, Alaska Wildlife Alliance, Canadian Parks & Wilderness Society, Defenders of Wildlife, Environment America, Friends of Alaska National Wildlife Refuges, National Audubon Society, National Wildlife Refuge Association, Northern Alaska Environmental Center, Sierra Club, The Wilderness Society, and Wilderness Watch (collectively "Petitioners"), and pursuant to 16 U.S.C. § 1540(g)(2)(A), Trustees for Alaska and Sierra Club submit the following 60-day notice letter to inform you that Petitioners intend to sue the U.S. Department of the Interior and the Bureau of Land Management (BLM) for violating the Endangered Species Act (ESA), 16 U.S.C. §§ 1531–1544. Your agencies have violated ESA Section 7(a)(2) requirements by failing to ensure that the authorization of an oil and gas leasing program on the Arctic National Wildlife Refuge Coastal Plain will not jeopardize the

survival and recovery of polar bears or destroy or adversely modify the species' designated critical habitat.¹

The Coastal Plain of the Arctic National Wildlife Refuge is the biological heart of one of the largest remaining intact ecosystems in the world and provides critical habitat for ESA-listed polar bears. After decades of bipartisan support protecting this iconic place from development, a rider in the December 2017 tax bill ("Tax Act") enabled BLM to develop a program for oil and gas leasing on the Coastal Plain. On September 12, 2019, BLM made public the final environmental impact statement (EIS) for the Coastal Plain Leasing Program. In the final EIS, BLM identified the least protective, most intensive-use alternative as its preferred alternative — Alternative B. Alternative B would offer the entire 1.5 million acre Coastal Plain for oil and gas leasing with the fewest protections for wildlife, habitat, or wilderness values. BLM issued a record of decision (ROD) for the leasing program adopting Alternative B on August 17, 2020.

In authorizing this leasing program, BLM consulted with the U.S. Fish and Wildlife Service (FWS) on the effects of its proposed action on those ESA-listed species under FWS' jurisdiction. This consultation resulted in a BiOp being issued on March 13, 2020.² BLM's legal violations noticed in this letter stem, in part, from its reliance on this opinion purporting to analyze the effects of the Coastal Plain leasing program on threatened polar bears. As the agency authorizing oil and gas leasing on the Coastal Plain, BLM has an ongoing, substantive duty under Section 7(a)(2) of the ESA to ensure that its actions are not likely to jeopardize the continued existence of listed species or result in destruction or adverse modification of critical habitat.³

The BiOp is legally flawed in a variety of ways: it relies on uncertain mitigation measures to avoid jeopardy; it fails to consider the best available scientific data; it fails to analyze the total impacts of the whole oil and gas program on critical habitat; and it fails to consider impacts from increased greenhouse gas emissions in making its "no jeopardy" determination. Because an action agency's reliance on a legally flawed BiOp to authorize an action violates its substantive duty to ensure against jeopardy, BLM violates the ESA by relying on the legally flawed BiOp.

Further, BLM cannot reasonably or lawfully rely on the BiOp because BLM has repudiated its authority to enforce conditions on which FWS premised the BiOp's conclusions and has changed its position regarding a key limitation on which the BiOp relied. Per BLM's interpretation of the Tax Act, its decision about which lands to make available for leasing is the last point at which BLM has authority to preclude harmful activities or infrastructure from

¹ 16 U.S.C. § 1536(a)(2).

² Fairbanks Fish and Wildlife Field Office, U. S. Fish and Wildlife Service, Biological Opinion for Coastal Plain Oil and Gas Leasing Program Arctic National Wildlife Refuge (Mar. 13, 2020) ["Biological Opinion" or "BiOp"]. This document was finalized and issued on March 13, and publicly released with BLM's Record of Decision for the leasing program on August 17, 2020.

³ 16 U.S.C. § 1536(a)(2).

occurring in designated polar bear critical habitat. Even though subsequent authorizations are required for those activities, BLM has taken the position that it cannot deny such authorization for any activity or infrastructure that is “necessary” for “access” to leased oil and gas.

The BLM’s approval of a leasing program that may jeopardize the survival and recovery of the polar bear or cause the destruction or adverse modification of its designated critical habitat violates the ESA and its implementing regulations, and is arbitrary, capricious, and not in accordance with law.

FACTUAL BACKGROUND

The polar bear (*Ursus maritimus*) was listed as threatened under the ESA in 2008 and is also federally protected under the Marine Mammal Protection Act (MMPA).⁴ Of the two polar bear populations (or stocks) found in the United States, the Southern Beaufort Stock (SBS) population is the most likely to occur on the Coastal Plain.⁵ Threatened polar bears den on the Coastal Plain and are using it with increasing frequency for other activities. The majority of the Coastal Plain (approximately 77 percent) is designated as critical habitat for the species.⁶ The vast majority of the area of the Coastal Plain subject to BLM’s Oil and Gas Leasing Program is land designated as polar bear critical habitat.

Polar bear populations have already been reduced to a precarious state due to impacts from climate change, which will only increase as warming in the Arctic region continues. Polar bears are particularly vulnerable to sea ice melt given their life history and specialized habitat needs. The U.S. Geologic Survey concluded that reduced sea ice could result in the loss of approximately two-thirds of the world’s polar bears within 50 years, and Alaska’s polar bears will likely be extirpated under current emission scenarios.⁷ These predictions are already coming to pass. In fact, the SBS population has suffered dramatic losses in sea ice and is in decline.⁸ The most recent estimate for the SBS population was 900 bears in 2010, representing a roughly 40 percent decline since the 1980s.⁹ As sea ice is reduced, these bears are increasingly coming ashore to den on the Coastal Plain.¹⁰

⁴ 73 Fed. Reg. 28212 (May 15, 2008); 75 Fed. Reg. 76086 (Dec. 7, 2010).

⁵ 75 Fed. Reg. at 76090.

⁶ *Id.* at 76086.

⁷ S.C. Amstrup *et al.*, Forecasting the Range-wide Status of Polar Bears at Selected Times in the 21st Century, U.S. Geological Survey Administrative Report (2007).

⁸ J. F. Bromaghin *et al.*, *Polar bear population dynamics in the southern Beaufort Sea during a period of sea ice decline*, 25 Ecological Applications 634 (2015).

⁹ *Id.*; E.V. Regehr *et al.*, *Polar bear population status in the southern Beaufort Sea*, Open-File Report 2006-1337 at 1 (2006).

¹⁰ J. W. Olson *et al.*, *Collar temperature sensor data reveal long-term patterns in southern Beaufort Sea polar bear den distribution on pack ice and land*, Mar Ecol Prog Ser 564:211-224 (2017); 75 Fed. Reg. 76086.

Separate from its leasing program, BLM received a proposal from SAExploration for an area-wide three-dimensional (3-D) seismic exploration on the Coastal Plain, intended to start in December 2018. BLM made that application public in July of 2018. SAExploration also petitioned FWS for an Incidental Take Regulation (ITR) under the MMPA to authorize “take” of threatened polar bears, as that term is defined under the MMPA. The applicants subsequently modified their proposal to begin in the 2019–20 winter season instead. To date, there has been no public information provided by the agencies on the status of this incidental take application or seismic exploration proposal.

In its final EIS for the program, BLM identified the least protective, most intensive-use alternative as its preferred alternative—Alternative B. Alternative B will offer the entire 1.5 million acre Coastal Plain for oil and gas leasing with the fewest protections for wildlife, habitat, or wilderness values. Throughout the final EIS, BLM states that section 20001(c)(2) of the Tax Act prevents it from denying a permit where the access is necessary for oil and gas development.

FWS characterized the BiOp on the Coastal Plain leasing program as programmatic, and therefore did not include an incidental take statement.¹¹ That release of liability can only be obtained via subsequent “step-down” ESA consultations that must occur prior to BLM permitting exploration and development activities. The BiOp concludes that BLM’s decision to open the entire Coastal Plain to leasing as described in Alternative B, and its subsequent lease sale, will not jeopardize polar bears or result in destruction or adverse modification of polar bear critical habitat. Those conclusions required two key conditions: (1) BLM must not approve any on-the-ground activity until after the lessee/operator obtains an MMPA authorization from FWS for any incidental take, or a letter from FWS indicating such take will not occur; and (2) BLM must also complete additional “step-down” ESA consultations with FWS prior to authorizing any on the ground activity that may affect a listed species.¹² The BiOp does not engage in any quantitative analysis of harms to polar bears, asserting that the locations of site-specific exploration and development activities are too uncertain or unknown at the leasing stage. The BiOp also assumes that compliance with the MMPA will prevent any destruction or adverse modification of critical habitat and otherwise provides only a cursory and misleading discussion of impacts to critical habitat.

The BiOp does not quantitatively analyze impacts from seismic exploration, stating that the timing locations of specific exploration and development activities are unknown at the leasing stage. The BiOp makes these statements despite assuming that the entire Coastal Plain would be subject to at least one 3D seismic survey within two years of signing of the ROD.¹³ The BiOp entirely failed to acknowledge a recent study to quantify those impacts. In December 2019, FWS and USGS scientists released a study, “Seismic Survey Design and Effects on

¹¹ BiOp at 10.

¹² *Id.* at 25.

¹³ *Id.* at 15.

Maternal Polar Bear Dens,” that attempted to quantitatively model impacts on polar bears from seismic surveys on the Coastal Plain.¹⁴ That study concluded that an area-wide seismic survey could only comply with the MMPA if the seismic did not occur in high-density denning habitat until the last few weeks of the winter exploration season, when polar bears would have already left their dens, but snow conditions may be too deteriorated to actually conduct seismic.

The BiOp also relies on the future implementation of measures from past Letters of Authorization issued pursuant to the Beaufort Sea ITR. The BiOp assumes that oil and gas operators will avoid denning polar bears and maintain a buffer distance between detected dens and the crews undertaking seismic survey activities.¹⁵ The BiOp does not discuss or acknowledge a recent study finding that aerial FLIR (Forward Looking Infra-red) surveys, conducted by the oil and gas industry to locate and hence protect maternal dens from disturbance, have been missing over half of the polar bear dens known to be within surveyed areas.¹⁶

Finally, the BiOp does not consider the impacts of the direct or indirect emissions from the Coastal Plain oil and gas development or production on exacerbating climate change related impacts on polar bears. Instead, it relies on a May 14, 2008 FWS policy memo to say that analysis of indirect emissions is not required.¹⁷

On August 17, 2020, BLM issued its ROD, adopting the Leasing Program for the Coastal Plain. BLM’s ROD opens the entire Coastal Plain to oil and gas leasing. Following this rushed environmental review process, we understand that DOI intends to hold the first lease sale for the area.

LEGAL STANDARDS

Congress enacted the ESA to ensure the protection and conservation of threatened and endangered species.¹⁸ The fundamental, express purpose of this federal statute is to conserve endangered and threatened species and the ecosystems upon which they depend.¹⁹ The obligations imposed by the ESA on federal agencies are clear: “Each Federal agency, shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded or carried out by such agency ... is not likely to jeopardize the continued existence of any

¹⁴ R. Wilson *et al.*, *Seismic Survey Design and Effects on Maternal Polar Bear Dens*, Journal of Wildlife Management (2020) [Attachment A].

¹⁵ BiOp at 112.

¹⁶ T. Smith *et al.*, *Efficacy of aerial forward-looking infrared surveys for detecting polar bear maternal dens*, PLOS ONE (2020) [Attachment B].

¹⁷ BiOp at 122.

¹⁸ 16 U.S.C. § 1531(b).

¹⁹ *Id.*

endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat”²⁰ The action agency’s duty to consult with either FWS or the National Marine Fisheries Service (the “wildlife agency”) is triggered when it has determined that its actions “may affect” a threatened or endangered species.²¹

The action agency is responsible for initiating formal consultation²² and is responsible throughout the consultation process for providing the best available scientific and commercial data to the wildlife agency.²³ Formal consultation under the ESA concludes with the wildlife agency’s issuance of a BiOp.²⁴ In a BiOp, the wildlife agency must determine whether the federal action subject to the consultation is likely to jeopardize the listed species or destroy or adversely modify critical habitat.²⁵ The BiOp must include a summary of the information upon which the opinion is based, an evaluation of the current status of the listed species, the effects of the action, and the cumulative effects.²⁶ The wildlife agency is also obligated to use the best available scientific and commercial data throughout the consultation process.²⁷

The ESA regulations require that the consultation process consider “all consequences to listed species or critical habitat that are caused by the proposed action,” meaning “it would not occur but for the proposed action and it is reasonably certain to occur.”²⁸ Cumulative effects “are those effects of future State or private activities . . . that are reasonably certain to occur within the action area of the Federal action subject to consultation.”²⁹

The ESA requires the wildlife agency to prepare a BiOp that uses the best scientific and commercial data available to evaluate whether an agency action is likely to jeopardize the continued existence of any endangered or threatened species or destroy or adversely modify designated critical habitat.³⁰ A likelihood of jeopardy is found when “an action [] reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.”³¹ A jeopardy analysis requires the wildlife agency to consider the aggregate effects of past and ongoing human activities that affect the current status of the species and its habitat (“environmental baseline”); the consequences to listed species or critical habitat

²⁰ *Id.* § 1536(a)(2).

²¹ *Id.* § 1536(a)(3); 50 C.F.R. § 402.14.

²² 50 C.F.R. § 402.14(a), (c).

²³ *Id.* § 402.14(d).

²⁴ *Id.* § 402.02.

²⁵ 16 U.S.C. § 1536(b)(4).

²⁶ 50 C.F.R. § 402.14(g)(2), (g)(3).

²⁷ 16 U.S.C. § 1536(a)(2).

²⁸ 50 C.F.R. § 402.02.

²⁹ *Id.*

³⁰ 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(g)(8).

³¹ 50 C.F.R. § 402.02.

that are caused by the proposed action (“effects of the action”); and the effects of future state and private activities that are reasonably certain to occur (“cumulative effects”).³² The wildlife agency must consider all of these factors in the BiOp in context of the current status of the species and its designated critical habitat. Only where the wildlife agency concludes that all of these elements added together do not threaten a species’ survival and recovery may it issue a no jeopardy opinion.³³

If that BiOp relies upon mitigation measures to reach a no jeopardy conclusion, those mitigation measures must be “reasonably certain to occur.”³⁴ To demonstrate that mitigation measures satisfy the reasonable certainty requirement, they must, *inter alia*, be achieved through “specific and binding plans,” and constitute “solid guarantees.”³⁵

The action agency’s duties under Section 7(a)(2) do not end with the completion of formal consultation and the issuance of a BiOp by the wildlife agency. Section 7(a)(2) imposes an ongoing, substantive duty on an action agency to ensure against jeopardy so long as it maintains discretionary control over its action.³⁶ Although an action agency satisfies its “procedural obligations under the ESA” by engaging in formal consultation, it “may not rely solely on a . . . biological opinion to establish conclusively its compliance with its *substantive* obligations under section 7(a)(2).”³⁷ An agency violates its substantive section 7(a)(2) duty by relying on an invalid BiOp.³⁸

Where the BiOp is facially flawed, the action agency’s reliance on it is arbitrary.³⁹ “Where the opinion’s flaws are ‘*legal* in nature’ . . . ‘[d]iscerning them requires no technical or scientific expertise,’ and the failure to do so may result in ‘an action based on reasoning ‘not in

³² *Id.* §§ 402.14(g), 402.02.

³³ *See Pac. Coast Fed’n of Fishermen’s Ass’n v. U.S. Bureau of Rec.*, 426 F.3d 1082, 1093 (9th Cir. 2005) (the proper “analysis is not the proportional share of responsibility the federal agency bears for the decline in the species, but what jeopardy might result from the agency’s proposed actions in the present and future human and natural contexts”).

³⁴ *Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, 524 F.3d 917, 936 n.17 (9th Cir. 2008) (*NWF v. NMFS*).

³⁵ *Rock Creek All. v. U.S. Fish & Wildlife Serv.*, 663 F.3d 439, 444 (9th Cir. 2011) (quoting *NWF v. NMFS*, 524 F.3d at 935–36) (internal quotation marks omitted).

³⁶ *Cottonwood Env’tl. Law Ctr.*, 789 F.3d 1075, 1087–88 (9th Cir. 2015).

³⁷ *Pyramid Lake Paiute Tribe of Indians v. U.S. Dept. of the Navy*, 898 F.2d 1410, 1415 (9th Cir. 1990); *see also Fla. Key Deer v. Paulison*, 522 F.3d 1133, 1145 (11th Cir. 2008).

³⁸ *Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 532 (9th Cir. 2010).

³⁹ *Ctr. for Biological Diversity v. BLM*, 698 F.3d 1101, 1127–28 (9th Cir. 2012); *City of Tacoma, Wash., v. FERC*, 460 F.3d 53, 75–76 (D.C. Cir. 2006); *Wild Fish Conservancy*, 628 F.3d at 532.

accordance with law’ and . . . thus arbitrary and capricious.’”⁴⁰ An agency acts arbitrarily where it “should have understood the legal errors of the Biological Opinion’s analysis” before acting.⁴¹

An agency’s reliance on a BiOp is also unreasonable and fails to satisfy its substantive duty to ensure against jeopardy where the action agency has failed to discuss information about the action that would undercut the conclusions of the BiOp.⁴² An agency cannot lawfully rely on a BiOp when the agency does not abide by conditions on which the conclusions regarding jeopardy or critical habitat depend.⁴³

LEGAL VIOLATIONS

The BiOp purports to analyze the impacts of the Coastal Plain leasing program on polar bears and concludes that the proposed program is not likely to jeopardize the continued existence of polar bears.⁴⁴ However, for the reasons outlined below, among others, this conclusion is arbitrary and capricious and not in accordance with the ESA or its implementing regulations. The BiOp prepared by FWS was both legally flawed and inadequate with regard to evaluating the potential impacts of the oil and gas program on polar bears. As a result, in rendering its decision as set forth in the ROD in reliance on this BiOp, BLM violated its substantive duty to ensure that its leasing program will not jeopardize the continued existence of threatened polar bears or destroy or adversely modify designated critical habitat.

First, BLM violated the ESA because it cannot ensure that it retains the authority to preclude activities on the Coastal Plain as part of its leasing program and as a result may not be able to preclude activities that may jeopardize polar bears. BLM asserts throughout the final EIS and ROD that its discretion to preclude activities on leases is constrained as a result of the Tax Act. Yet, the BiOp reaches its no jeopardy conclusion based on the assumption that BLM will refuse to authorize oil and gas activities unless the operator demonstrates compliance with the MMPA. Because BLM has repudiated its authority to refuse to permit projects that are “necessary,” it cannot lawfully rely on the BiOp to show that it has met its substantive duties.

Second, BLM violated its duty to ensure against destruction or adverse modification of polar bear critical habitat by changing its interpretation of the Tax Act’s 2,000 acre limit on Coastal Plain surface disturbance. In the final EIS and BiOp, explicit assumptions were made and relied on regarding limitations on the extent of infrastructure that could be present at any given point in time. BLM altered its interpretation in the ROD, making it unclear the extent to which the agency will allow surface disturbing activities on the Coastal Plain and potentially

⁴⁰ *Wild Fish Conservancy*, 628 F.3d at 532 (quoting *Defenders of Wildlife v. EPA*, 420 F.3d 946, 976 (9th Cir. 2005), *rev’d on other grounds*, *Nat’l Ass’n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644 (2007)).

⁴¹ *Defenders of Wildlife v. U.S. Env’t Protection Agency*, 420 F.3d 946, 976 (9th Cir. 2005).

⁴² *Ctr. for Biological Diversity*, 698 F.3d at 1127–28.

⁴³ *See, e.g., Oregon Nat. Desert Ass’n v. Tidwell*, 716 F. Supp. 2d 982, 1004 (D. Or. 2010).

⁴⁴ BiOp at 131.

allowing for impacts far beyond the limits that FWS considered in the BiOp. BLM cannot ensure that the impacts to critical habitat will be limited as the BiOp assumed, and therefore cannot lawfully rely on a no jeopardy conclusion predicated in part on a limitation that BLM has disavowed.

Third, BLM violated the ESA by unreasonably relying on a legally deficient BiOp. The BiOp is legally deficient for at least four independent reasons:

(i) It relies on mitigation measures without evaluating whether BLM has legal authority to enforce or implement those measures, and thereby arbitrarily ignores information indicating those measures are uncertain.

(ii) It fails to analyze the full impacts of the whole agency action on critical habitat. The BiOp relies upon future MMPA permitting and future ESA consultations that will only consider impacts on a piece-meal basis. The BiOp fails to consider the impacts of the whole leasing program that will accrue and accumulate over decades, including all the direct and indirect effects dictated by its decision about what lands will be open or closed to leasing. The remainder of the “analysis” suffers from contradictions, misrepresentations, and omissions that make it arbitrary and capricious.

(iii) It fails to consider and analyze the best available scientific data, in violation of the statute’s express requirement.⁴⁵ Specifically, it failed to consider studies relevant to determining impacts to polar bears from winter seismic exploration, including a study by FWS and USGS scientists. FWS had ample information to assess likely impacts from seismic exploration, which the agencies anticipated will occur across the entire Coastal Plain within the next two years.

(iv) It entirely failed to consider the climate change impacts from oil and gas activities on the Coastal Plain and how such activities would exacerbate impacts to SBS polar bears. FWS has sufficient information to discuss how such increased greenhouse gas emissions would impair the recovery and survival of the species, but failed to consider it. The failure to address this readily available information in the BiOp violates the ESA.

Pursuant to Section 7(a)(2), BLM is required to “insure” that any of its actions or approvals are “not likely to jeopardize the continued existence of . . . any threatened species,”⁴⁶ including polar bears. This substantive duty applies to BLM’s permitting, management, and authorization of the Coastal Plain leasing program. As BLM interprets the Tax Act, its decision about which lands to open or close to leasing is the last point at which it retains the authority to preclude impacts. That decision therefore irretrievably commits resources. By relying on the flawed and legally deficient BiOp to support the leasing program, BLM is failing to ensure its

⁴⁵ 16 U.S.C. § 1536(a)(2).

⁴⁶ *Id.*

actions will avoid the likelihood of jeopardy to polar bears and the destruction or adverse modification of their critical habitat. Therefore, BLM has violated Section 7(a)(2) of the ESA.⁴⁷

BLM must withdraw the ROD and halt any further actions depending on the ROD, and BLM and FWS must reinitiate section 7 consultation to address the problems and legal deficiencies identified in this letter. Any one of these violations standing alone is sufficient to warrant such action.

I. BLM violated its ESA Section 7(a)(2) duty to ensure against jeopardy by unreasonably relying on the BiOp despite repudiating its own authority to enforce a requirement on which the no jeopardy conclusion depends

The BiOp’s no jeopardy conclusion for polar bears rests on the premise that BLM will not authorize any on-the-ground activities unless and until the lessee/operator first obtains MMPA authorization from FWS for any incidental take resulting from the activities or a letter from FWS finding that incidental take will not occur.⁴⁸ Yet BLM repeatedly states that it interprets the Tax Act as precluding it from denying authorization for any on-the-ground activity “necessary” for “access” to leased oil and gas. This renders the foundational premise of the BiOp’s no jeopardy conclusion a nullity. An agency “may not make empty promises, secure a no jeopardy BiOp, and then go forward with the proposed action—absent the . . . enforcement promised—simply because a no jeopardy BiOp has issued.”⁴⁹ “An agency cannot meet its section 7 obligations . . . by failing to discuss information that would undercut the opinion’s

⁴⁷ *Id.*

⁴⁸ See March 13, 2020 FWS Cover Memo to BiOp at 2 (“These PDCs form the basis of the analysis *and must be implemented by the BLM in full for the conclusions of the BO to remain valid.*”) (emphasis added); BiOp at 114 (“The most important factor minimizing impacts . . . to polar bears is PDC 2.”); *Id.* at 115 (“Despite our inability to quantitatively evaluate potential impacts of disturbance to polar bears from the proposed RFD, based on PDC 2, we conclude that because any permit will require compliance with the MMPA, the effects of disturbance will have to be limited to individual-level impacts to a small number of polar bears that would cause no more than a negligible impact to the SBS stock Given that we have concluded that the Proposed Program will cause no more than a negligible impact to the SBS stock of polar bears, it is reasonable to conclude that the Proposed Program will not appreciably affect the rate of decline and therefore will not appreciably affect the prognosis for recovery of the SBS subpopulation and of the species overall.”); *Id.* at 122 (“Further, and most importantly, PDCs 1 and 2 (also Lease Notices 1 and 2) require that protections of the ESA and MMPA would be applied to all activities proposed under the Program.”); *Id.* at 123–24 (“Also importantly, PDC 2 requires compliance with the MMPA, including potential impacts to terrestrial denning habitat, and impacts to behaviors that influence polar bear access to, and use of, denning habitat.”); *Id.* at 130–31, 133–34, and 136.

⁴⁹ *Oregon Nat. Desert Ass’n v. Tidwell*, 716 F. Supp. 2d at 1004 (citing *Res. Ltd., Inc. v. Robertson*, 35 F.3d 1300 (9th Cir.1993)).

conclusions.”⁵⁰ Yet that is exactly what BLM has done here. As a result, BLM’s reliance on the BiOp is unreasonable and violates Section 7(a)(2).

A) *BLM repeatedly repudiates its authority to preclude oil and gas activities on the Coastal Plain.*

In both the final EIS and the ROD, BLM repeatedly states its position that it lacks authority post-leasing to deny authorization for any on-the-ground activity, such as constructing a road or pipeline or undertaking any other “necessary” activity to access leased oil and gas. For example, in the final EIS, BLM states:

While the BLM may grant a waiver, exception, or modification of a stipulation through the permitting process, it may also impose additional requirements through permitting terms and conditions to meet the objectives of any stipulation. This would be the case if the BLM Authorized Officer considers that such requirements are warranted to protect the land and resources, in accordance with the BLM’s responsibility under relevant laws and regulations. *Note that PL 115-97 requires that the BLM authorize rights-of-way (ROWS) for essential roads and pipeline crossings, and other necessary access, even in areas closed to leasing or with a NSO [No Surface Occupancy].*⁵¹

BLM qualified its statement that it may impose additional requirements to meet the objective of any stipulation with the position that the Tax Act prevents it from imposing a condition that would result in denial of “necessary access.”

In explaining the effect of Lease Stipulation 1 requiring permanent oil and gas facilities be set back from sensitive resources, BLM again asserts that the stipulation would give way for a “necessary” activity because the Tax Act requires authorization of such activities:

Requirement/Standard: (NSO) Permanent oil and gas facilities, including gravel pads, roads, airstrips, and pipelines, are prohibited in the streambed and within the described setback distances outlined below, from the southern boundary of the Coastal Plain to the stream mouth. For streams that are entirely in the Coastal Plain, the setback extends to the head of the stream, as identified in the National Hydrography Dataset. *Essential pipelines and road crossings would be permitted through setback areas in accordance with Section 20001(c)(2) of PL 115-97, which requires issuance of rights-of-way or easements across the Coastal Plain, including access to private land used in support of the federal oil and gas leasing*

⁵⁰ *Ctr. for Biological Diversity*, 698 F.3d at 1127–28 (9th Cir. 2012) (citing *Wild Fish Conservancy*, 628 F.3d at 532 (9th Cir. 2010)).

⁵¹ U.S. Dep’t of the Interior, Bureau of Land Mgmt., Coastal Plain Oil and Gas Leasing Program Final Evtl. Impact Statement at 2–3 to 2–4 (Sept. 2019) [hereinafter FEIS] (emphasis added).

program, for the exploration, development, production, or transportation necessary to carry out Section 20001.⁵²

Even though Lease Stipulation 1 would bar permanent facilities within the setback area for streams, permanent facilities “essential” for “access” would *not* be barred from those areas because BLM interprets provision 20001(c)(2) as mandating that it authorize such access if “necessary” to carry out the oil and gas leasing program.

BLM also includes numerous responses to public comments on its draft EIS that reiterate its position that it lacks authority post-leasing to deny authorizations for any on-the-ground activities “necessary” for access to leased oil and gas. For example, in response to a question from the public asking for clarification of whether the “No Surface Occupancy” (NSO) stipulation described in the draft EIS would enable BLM to prevent surface activities adjacent to the NSO parcel that have spillover surface impacts on the parcel, BLM stated:

Section 20001(c)(2) of the Tax Act states the Secretary shall issue any rights-of-way or easements across the Coastal Plain for the exploration, development, production, or transportation necessary to carry out this section; therefore, if an operator were required to access resources that required a right-of-way within the Coastal Plain, prohibiting such access would not comply with the Tax Act.⁵³

In rejecting comments from FWS suggesting the addition of stipulation language to prevent oil and gas structures near the Hulahula River, BLM stated:

Section 20001(c)(2) of the Tax Act states the Secretary shall issue any rights-of-way or easements across the Coastal Plain for the exploration, development, production, or transportation necessary to carry out this section. Therefore, if an operator were required to access resources east of the Hulahula River, they may need a right-of-way across the river; *prohibiting such access would not comply with the Tax Act.*⁵⁴

⁵² FEIS at 2-5 to 2-6 (emphasis added).

⁵³ FEIS Appendix S at S-223 (Response to Public Comment Row #245); *see also id.* at S-331 (Response to Public Comment Row #461).

⁵⁴ FEIS Appendix S at S-350 (Response to Public Comment Row #503) (emphasis added); *see also id.* at S-351 (Response to Public Comment Row #505) (“Section 20001(c)(2) of the Tax Act states the Secretary shall issue any rights-of-way or easements across the Coastal Plain for the exploration, development, production, or transportation necessary to carry out this section. For example, if an operator were required to access resources east of the Hulahula River, they may need a right-of-way across the river; *prohibiting such access would not comply with the Tax Act.*”) (emphasis added); *id.* at S-371 (Response to Public Comment Row #547) (“The tex [sic] in ROP 19t [sic] has been revised as needed. Section 20001(c)(2) of the Tax Act states the Secretary shall issue any rights-of-way or easements across the Coastal Plain for the exploration,

Furthermore, BLM's comment responses did not repudiate public comments asserting that BLM lacked authority to regulate "necessary" access. One commenter stated:

The BLM does not retain substantial rights allowing it to regulate rights-of-way and easements. The DEIS should have noted that reasonable regulations may not be permitted in some cases, since Section 20001(c)(2) of PL 115-97 mandates that rights-of-way or easements across the Coastal Plain are to be issued with no mention of protecting surface resource values.⁵⁵

BLM's response did not deny or reject the comment's assertion.

In response to a public comment asserting that the draft EIS was ambiguous with regard to how rights of way for access and pipelines would be approached, and that the ambiguous language could be "off-putting to potential lessees," BLM stated:

Section 20001(c)(2) of the Tax Act states the Secretary shall issue any rights-of-way (ROW) or easements across the Coastal Plain for the exploration, development, production, or transportation necessary to carry out this section. Thus; [sic] ROWs necessary for both access and construction of facilities, such as pipelines, will be granted, including in unleased areas.⁵⁶

Thus, once again, BLM asserted its position that it cannot deny authorization for such access.

The ROD entrenches this position. The ROD qualifies the assertion that lease stipulations and ROPs provide further protections for resources with the caveat that "PL 115-97 requires that the BLM issue rights-of-way for essential roads and pipeline crossings, and other necessary access, even in areas subject to an NSO stipulation."⁵⁷ The ROD flatly asserts the position that

development, production, or transportation necessary to carry out this section. Therefore, applicants may need a right-of-way across rivers; prohibiting such access would not comply with the Tax Act."); *id.* at S-391 (Response to Public Comment Row #573) ("Section 20001(c)(2) of the Tax Act states the Secretary shall issue any rights-of-way or easements across the coastal plain for the exploration, development, production, or transportation necessary to carry out this section. For example, if an operator were required to access resources east of the Hulahula River, they made need a right-of-way across the river; prohibiting such access would not comply with the Tax Act.").

⁵⁵ FEIS Appendix S at S-790 (Public Comment Row #59).

⁵⁶ *Id.* at S-1017 (Response to Public Comment Row #5).

⁵⁷ U.S. Dep't of the Interior & BLM, Coastal Plain Oil and Gas Leasing Program Record of Decision (2020) at 3 n.4 [hereinafter ROD]; *see also id.* at 19 (stating that the NSO stipulations give way for any "facilities necessary to be located in such areas, such as essential road and pipeline crossings of streams or rivers as required by Section 20001(c)(2)"); *id.* at Appendix A,

BLM lacks discretion to deny such rights-of-way, and further clarifies that it lacks authority to deny such rights-of-way *not only for lease holders*, but *any* request for “access” deemed necessary to carry out the leasing program:

Congress went beyond the authorizations applicable to the NPR-A and required that necessary rights of way, easements and production and support facilities be authorized; thus, in contrast to the legislation and regulations establishing an oil and gas leasing program for the NPR-A, Section 20001(c) provides three striking differences.

... Section 20001(c)(2) states that the Secretary, acting through the BLM, “shall issue any rights-of-way or easements across the Coastal Plain for the exploration, development, production, or transportation necessary to carry out this section.” The BLM interprets the plain language of this provision 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.

Clearly Congress intended that successful implementation of the mandated oil and gas program should not be frustrated by an unavailability of necessary access. This directive is unlike the NPR-A, where issuance of such rights-of-way are at the BLM’s discretion. This directive is not limited to development under a particular lease, but rather any right-of-way necessary to carry out the section. It would, for example, apply to a request for a road or pipeline right-of-way, even if sought by a non-leaseholder.⁵⁸

The ROD makes no attempt whatsoever to reconcile the position that BLM lacks authority to deny authorization for any structures and activities “necessary” for “access” with the assertion that BLM will deny authorization for on-the-ground activities absent the applicant obtaining MMPA authorization.

In sum, BLM claims that it lacks authority to preclude any future activities that are “necessary” for oil and gas leasing, but FWS’ no jeopardy opinion relies on the assumption that BLM could and would preclude all activities on leases unless MMPA compliance is demonstrated before those activities can commence. As a result, BLM cannot reasonably rely on the no jeopardy determination.

Moreover, DOI’s position with regard to the MMPA has been that the MMPA regulates the *taking* of marine mammals, but not the activities that cause the taking. In *Center for*

A-4 (qualifying statement that BLM may impose protective measures at the permitting stage with caveat that “PL 115-97 requires that the BLM authorize rights-of-way (ROWs) for essential roads and pipeline crossings and other necessary access, even in areas closed to leasing or with an NSO stipulation.”).

⁵⁸ *Id.* at 9-10.

Biological Diversity v. Salazar, a court agreed with DOI's explanation that industry could move forward without an incidental take regulation in place, and such take merely would be subject to MMPA liability.⁵⁹ In evaluating the impacts of the MMPA incidental take regulation in that case, FWS assumed for the purposes of an Environmental Assessment that the oil and gas activities, and resultant take, would happen regardless of whether FWS promulgated an incidental take regulation to shield that take from liability. The agency's position was that the MMPA did not regulate the oil and gas activities themselves, but rather such regulation was imposed by the permitting agency with jurisdiction over the oil and gas activity itself.⁶⁰ But here, that permitting agency has disavowed having authority under the statute it is implementing (i.e., the Tax Act) to actually prohibit the activities.

Thus, DOI's position regarding the MMPA, and its interpretation of the legal effect of a lease notice⁶¹ are not consistent with BLM relying on the BiOp when its no jeopardy conclusion turns on the condition that BLM will require operators/lessees to obtain MMPA authorization prior to authorizing on the ground activities. It violates Section 7(a)(2) for BLM to agree to enforce a condition on which the no jeopardy conclusion depends when BLM has averred that it lacks legal authority to enforce that condition in any situation where the activity is "necessary" for "access."

B) It is foreseeable to FWS and BLM that obtaining MMPA authorization for oil and gas activities will be "problematic" for extensive areas BLM opened to leasing.

It is reasonably foreseeable that BLM will offer to sell leases for which the activities entailed to access the leased oil and gas cannot comply with the MMPA. FWS informed BLM in a memo dated April 8, 2019 that operators/lessees obtaining MMPA authorization for seismic surveys on the Coastal Plain of the Arctic Refuge would be "problematic" for an extensive area of high polar bear denning density, which happens to overlap entirely with areas thought by BLM to have high and medium hydrocarbon potential.⁶² FWS recommended that BLM exclude

⁵⁹ See *Ctr. for Biological Diversity v. Salazar*, 695 F.3d 893, 915–16 (9th Cir. 2012) ("Plaintiffs fault the EA for assuming that oil and gas exploration would continue under the no-action alternative. ... The EA ...notes that 'because the [regulations] do not explicitly permit or prohibit oil and gas activities, Industry could continue to conduct exploration activities.' ... As the 2008 final rule explains, *the incidental take regulations 'do not authorize, or 'permit,' the actual activities associated with oil and gas exploration in the Chukchi Sea'; they simply shield the proposed activities from take liability under the MMPA.*" (emphasis added)).

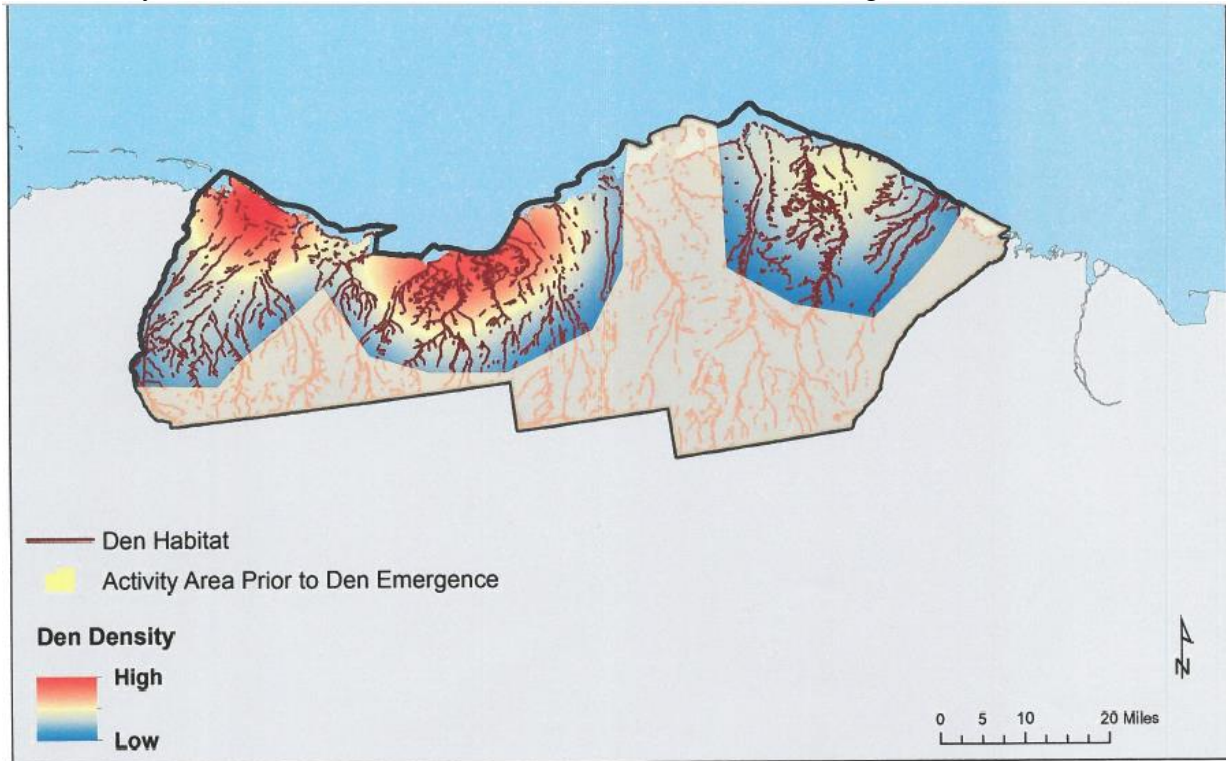
⁶⁰ See *id.*

⁶¹ See *infra* at 20-21.

⁶² See U.S. Fish and Wildlife Service. Memorandum Regarding Recommendations for No Leasing Areas to Create an 800,000 Acre Alternative in the 2018 Draft Environmental Impact Statement (DEIS) for the Coastal Plain Oil and Gas Leasing Program for the Arctic National Wildlife Refuge, Alaska. (2019) [Attachment L]. The Tax Act dictates that BLM hold two lease sales, and that the first two lease sales each offer at least 400,000 acres for leasing, starting with

from leasing areas that overlap with high to medium polar bear denning density because “these areas will be problematic for permitting winter activities under Marine Mammal Protection Act.”⁶³

That FWS memo provided this map depicting the location of the high to medium polar bear density areas that FWS recommended be excluded from leasing at that time:



In additional comments from FWS to BLM dated August 9, 2019, FWS repeated that all permanent oil and gas facilities should be excluded from being within one mile of all suitable denning habitat within the high density denning areas shown on the map above,⁶⁴ because FWS

those areas that have the “highest potential for the discovery of hydrocarbons.” See Title II of the Tax Cuts and Jobs Act, Public Law 115-97 § 20001(c)(1)(B). BLM has identified areas of the Coastal Plain as “high,” “medium”, and “low” hydrocarbon potential, and estimates there are 427,900 acres projected to have high potential and 658,400 acres have medium potential. FEIS at ES-4.

⁶³ See Attachment L, *supra* note 62.

⁶⁴ The version of the FWS comments that BLM provided to the public did not contain the maps referred to in that comment; however, in response to a FOIA request from Defenders of Wildlife, FWS stated that the map referred to was the same map above, attached to the April 8, 2019 memo.

believed lessees otherwise would not be able to comply with the MMPA.⁶⁵ In BLM's final EIS for the Coastal Plain Oil and Gas Leasing program, BLM identifies stipulations (conditions) to apply to leases. Lease Stipulation 1 provides setbacks applicable to "permanent oil and gas facilities" to establish areas with No Surface Occupancy limitations on such facilities. With regard to Lease Stipulation 1, the FWS Regional Director-Alaska Region stated: "We reiterate our recommendation for a one mile buffer for all streams and rivers encompassed by the high density area for polar bear denning as provided in the FWS produced maps. Without these restrictions, it is unlikely that leaseholders will be able to comply with MMPA and/or ESA requirements for polar bears."⁶⁶

BLM's response to that comment was merely to assert that "Lease Notice 2" requires operators/lessees to obtain MMPA authorization. BLM's response does not explain whether or how the Lease Notice will be enforceable in light of BLM's position, asserted in the final EIS, that it cannot deny authorization for on-the-ground activities that are "necessary" for access.⁶⁷

FWS made plain its conclusion that activities within one mile of suitable denning habitat in the high-medium denning density areas will be a problem to permit under the MMPA and that compliance with the MMPA will require keeping activities and noise-causing permanent facilities at least one mile from all suitable denning habitat in that extensive region. The area identified in FWS comments as "problematic" for permitting would require exclusion of seismic activities from at least what appears to be approximately 150,000 acres of land in the Coastal Plain identified by BLM as having high and medium hydrocarbon potential, taking into account the need for a one-mile buffer around stream and creek banks in the higher density denning area identified by the FWS memo. Thus, as FWS indicated that facilities and exploration activities would be entirely excluded from what appears to be approximately 150,000 acres in the midst of the high and medium hydrocarbon potential portions of the Coastal Plain, there is substantial reason at present for BLM to know that leasing parcels in that area, and even leasing parcels in any area that could require noise-causing facilities to cross that area or explore within that area, will lead to a situation where a lessee is unable to obtain MMPA authorization for incidental take, and where BLM will have to deny permission for on the ground activities. Yet BLM repeatedly denied it has authority to do just that. BLM's reliance on the BiOp's no jeopardy

⁶⁵ See U.S. Fish and Wildlife Service. Memorandum Regarding Comments on the Preliminary Final Environmental Impact Statement (EIS) for the Coastal Plain Oil and Gas Leasing Program for the Arctic National Wildlife Refuge, Alaska (2019) [Attachment I].

⁶⁶ *Id.* at 11, Comment #29 (emphasis added); see also BLM and Cooperating Agency Comments on the Administrative Draft Final EIS at 40, Comment #140 (same statement) [hereinafter Cooperating Agency Comments] [Attachment J].

⁶⁷ See Cooperating Agency Comments, *supra* note 66 at 40, Comment #140 ("Regardless of the buffer width, pursuant to Lease Notice 2 operators will have to obtain MMPA authorization prior to conducting operations in denning habitat. The EIS analyzes a range of alternatives. If Alternative B is the selected alternative in the Record of Decision, then the decision maker may select mitigation measures from other alternatives as necessary.").

conclusion for polar bears therefore violates its Substantive section 7(a)(2) duty to ensure against jeopardy.

BLM should specifically have consulted with FWS on the impacts of BLM adopting its stated interpretation of the Tax Act. Section 20001(c)(2) of the Tax Act does not state unambiguously that BLM lacks authority to deny authorizations for “necessary” activities. A reasonable interpretation of that provision is that Congress was merely indicating that it is BLM, rather than the primary land manager FWS, that “shall” make the decisions about rights of way and easements, but only when the easement or right of way is necessary for the oil and gas program. As BLM’s interpretation is not mandated by the text of the Tax Act, its decision to adopt that interpretation should have been part of the program-level decision that was subject to Section 7 consultation. BLM therefore also violated Section 7(a)(2) by failing to consult with FWS regarding the impact of that interpretation.

Per BLM’s interpretation of the Tax Act articulated in the ROD, once BLM decides which lands are available to leasing, BLM must offer the lands with the highest hydrocarbon potential in the first lease sale, and cannot deny authorization for any activities and infrastructure “necessary” for “access” to the leased oil and gas. Consequently, the decision in the ROD to open extensive areas of polar bear terrestrial denning critical habitat in both the “high” and medium hydrocarbon potential areas to leasing means that BLM has committed to surface impacts and disturbances in that critical habitat. In the absence of authority to enforce Lease Notice 2, BLM cannot ensure that the impacts to polar bears will be limited as the BiOp assumed. BLM cannot lawfully rely on a “no jeopardy” opinion predicated on a condition that BLM believes it lacks authority to implement or enforce.

II. BLM violated its ESA Section 7(a)(2) duty to ensure against destruction or adverse modification of polar bear critical habitat by changing its position on a limitation relied on in the BiOp

BLM cannot lawfully rely on the BiOp to satisfy its Section 7(a)(2) duties for the selection of lands for leasing because the ROD removes the 2,000 acre upper limit on direct footprint impacts that the BiOp’s conclusions depended upon. An agency cannot meet its section 7 obligations by relying on a BiOp that is legally flawed or by failing to discuss information that would undercut the opinion’s conclusions.⁶⁸

The BiOp repeatedly relies on the “2,000 acre” limitation imposed by the section 20001(c)(3) of the Tax Act in assessing the extent of impacts to species and critical habitat.⁶⁹ It

⁶⁸ *Ctr. for Biological Diversity*, 698 F.3d at 1127–28 (citing *Wild Fish Conservancy*, 628 F.3d at 532).

⁶⁹ *See* BiOp at 113 (listing the 20001(c)(3) limitation as one of the factors that “serve to limit impacts” on polar bears); *id.* at 123 (listing 20001(c)(3) as a factor on which the analysis of

reflects the understanding that the 2,000 acre limit would apply to infrastructure built during the development phase, not just the production phase.⁷⁰ Moreover, the BiOp reflects the understanding that the direct footprint from the program would be limited to a maximum of 2,000 acres at any point in time.⁷¹

The ROD upends the premise that section 20001(c)(3) will limit the direct footprint of impacts from the RFD scenario to 2,000 acres. It expressly rejects the interpretation provided in the final EIS and relied upon in the BiOp.⁷² Rather than clarifying BLM's interpretation of the 2,000 acre limit, the ROD attempts to punt on that issue and leaves the extent of infrastructure and activity permissible on the Coastal Plain an open question. The ROD creates uncertainty about whether structures built to support the development phase, or for transportation not specifically tied only to the production phase, would be restricted by the 2,000 acre limitation.⁷³

critical habitat impacts "relies"); *id.* at 133 (relying on understanding that the 2,000 acre limitation "pre-emptively limits the amount of critical habitat that could be directly affected").

⁷⁰ *See id.* at 104–05.

⁷¹ *See id.* at 86 (stating that maximum direct impacts to wetlands from the extraction or placement of gravel fill would be 2,000 acres); *id.* at 87 (discussing how impacts to eiders were estimated based on "2,000 acres of development projected to occur under the RFD" and the associated zones of influence around that development); *id.* at 133 (the 2,000 acre limitation "pre-emptively limits the amount of [polar bear] critical habitat that could be directly affected"). The FWS memorandum transmitting the BiOp states that FWS based the BiOp on information BLM provided in the DEIS and Biological Assessment, as well as two e-mails from BLM, dated February 25, 2020 and March 3, 2020, "which clarify the scope and provisions of BLM's proposed action relative to Section 20001(c)3." FWS has not made these e-mails available to the public.

⁷² *See* ROD at 2, 4 ("The ROD also does not adopt the interpretive assumptions made in the Leasing EIS as to the implementation of Section 20001(c)(3) of PL 115-97.")

⁷³ *See id.* at 11 ("There are a broad range of actions potentially carried out during the entire life of an oil and gas program which may necessitate authorization of facilities related to exploration, development, transportation, production, and related facilities.... Future BLM determinations about which facilities benefit from the 2,000-surface acre mandate, and which do not, could potentially influence the total extent of development in the Coastal Plain and, thus, the potential environmental impacts stemming from the leasing program."); *id.* at 12 ("Had Congress decided to encompass a broad range of facilities for various aspects of an oil and gas program into 20001(c)(3) it knew how to do so. 'Production and support facilities' are not 'exploration and support facilities,' nor are they 'transportation and support facilities,' or facilities that support some other aspect of the program that is not 'production and support.'"); *id.* at 13 ("Depending on the precise facts of a future proposal, certain other types of facilities that the BLM assumed were included within the 2,000 acre limit in the EIS, such as gravel roads not required for production, barge landing and storage, and gravel pits and stockpiles, may or may not be 'production and support facilities,' depending on particular circumstances at issue.").

The consequence is that the direct footprint from the program will not be “pre-emptively limit[ed]” to 2,000 acres, as the BiOp presumed.⁷⁴

With regard to polar bears, the BiOp indicated that the limitation of impacts to a direct footprint of no more than 2,000 acres was a factor on which FWS relied to reach its no destruction/adverse modification conclusion regarding critical habitat despite “uncertainties regarding the nature, location, and timing of future activities proposed under the Program [that] prevent precise quantitative analysis of potential effects to terrestrial denning habitat.”⁷⁵

Thus, despite apparently representing to FWS that section 20001(c)(3) would limit the total direct footprint of facilities in polar bear critical habitat to no more than 2,000 acres at any point in time, BLM’s ROD opens the entirety of the critical habitat within the program areas to surface impacts while simultaneously stripping away that limitation. Per BLM’s interpretation of the Tax Act articulated in the ROD, BLM cannot deny authorization for any activities and infrastructure “necessary” for “access” to the leased oil and gas. Consequently, the decision in the ROD to open the entire Coastal Plain to leasing means that BLM has committed to surface impacts in critical habitat.⁷⁶ Without the 2,000 acre limitation “pre-emptively limiting” the total footprint of the impacts, BLM cannot ensure that the impacts to critical habitat will be limited as the BiOp assumed. BLM cannot lawfully rely on a BiOp whose conclusions are predicated in part on a limitation that BLM has disavowed.

III. BLM violated its Section 7(a)(2) duty by unreasonably relying on a legally deficient BiOp that relies on a mitigation measure that is uncertain.

The BiOp’s no jeopardy conclusion for polar bears relies on the requirement that BLM will not authorize any on-the-ground activities unless and until the lessee/operator first obtains MMPA authorization, as discussed above. Problematically, to effectuate that requirement, the BiOp relies on a “lease notice” with language intended to notify lessees that BLM will not authorize on the ground activities until after the applicant/lessee provides proof to BLM that FWS has either authorized the incidental take resulting from such activities or determined that incidental take will not occur.

BLM’s reliance is arbitrary and capricious because the BiOp entirely failed to evaluate whether a “lease notice” alone is a sufficient basis for BLM to deny a permit on the ground that the applicant has not yet obtained a release of MMPA liability. A BiOp cannot rely on mitigation

⁷⁴ BiOp at 133.

⁷⁵ *Id.* at 123.

⁷⁶ As discussed in detail below, almost the entirety of the high and medium hydrocarbon potential areas in the Program Area are lands designated as terrestrial denning critical habitat, such that this is not a situation where it may be possible to avoid locating facilities in critical habitat post-leasing.

measures to support a “no jeopardy” conclusion unless they are reasonably certain to occur.⁷⁷ Mitigation measures are not sufficiently certain to occur where the action agency lacks the capacity to enforce those requirements.⁷⁸

With regard to “lease notices” for on-shore oil and gas leasing outside the Arctic Refuge, BLM regulations state:

An information notice *has no legal consequences, except to give notice of existing requirements*, and may be attached to a lease by the authorized officer at the time of lease issuance to convey certain operational, procedural or administrative requirements relative to lease management within the terms and conditions of the standard lease form. *Information notices shall not be a basis for denial of lease operations.*⁷⁹

Further, with regard to lease notices for leases issued under the NPRA, BLM has stated in the Integrated Activity Plan Final EIS: “A lease notice provides information to permittees, including how the BLM intends to assure compliance with certain laws (e.g., Endangered Species Act of 1973 [ESA]) and regulations that may apply to oil and gas activities conducted pursuant to the lease. *Lease notices do not impose new requirements.*” BLM has yet to issue any regulation to define the effect of a lease notice for a lease issued under the Tax Act. And, as described above, DOI and FWS’ interpretation of the MMPA is that the statute prohibits taking but does not regulate the oil and gas activities that may cause such taking. Thus such activities could proceed at risk of violating the MMPA, subject to the statute regulating the oil and gas activity itself—here the Tax Act. The BiOp does not reflect consideration of whether the Tax Act provides BLM with the authority, or discretion, on which to base the requirement of Lease Notice 2. As a result, the BiOp is arbitrary and capricious because it relies on a measure that lacks the requisite certainty regarding its enforceability by the action agency.

Rather than address the question of whether BLM can actually deny a permit for a “necessary” activity based on the failure or inability to obtain upfront MMPA authorization, the BiOp offers a nonsensical statement that: “In the unlikely event that a proposed activity cannot be designed or mitigated in a manner that meets the MMPA’s substantive standards, then that project would require modification or additional mitigation, or the incidental take could not be authorized.”⁸⁰ The BiOp in no manner squares the assertion that failure to obtain MMPA authorization is “unlikely” with its own comments to BLM identifying that extensive areas of

⁷⁷ See, e.g., *NWF v. NMFS*, 524 F.3d at 936 n.17 (9th Cir. 2008). To demonstrate that mitigation measures satisfy the reasonable certainty requirement, inter alia, they must be achieved through “specific and binding plans,” and constitute “solid guarantees.” *Rock Creek All.*, 663 F.3d at 444 (quoting *NWF v. NMFS*, 524 F.3d at 935–36) (internal quotation marks omitted).

⁷⁸ See, e.g., *Oregon Nat. Desert Ass’n*, 716 F. Supp. 2d at 1002–04 (action agency improperly relied on BiOp where “no jeopardy” conclusion depended on misrepresentations by action agency to FWS about enforcement of binding mitigation measures against permittees).

⁷⁹ 43 C.F.R. § 3101.1-3 (emphasis added). .

⁸⁰ BiOp at 115.

high density denning habitat should be excluded from oil and gas activities in light of MMPA permitting being “problematic.” Nor does this statement evaluate whether BLM actually has authority to deny a permit where the activity or structure is “necessary” and yet MMPA authorization cannot be obtained.

Reliance on future “step-down” ESA consultations cannot provide the certainty required by the Ninth Circuit where the BiOp has engaged in no analysis whatsoever to evaluate what discretion to “inure to the benefit of the species” BLM will actually retain post-leasing. The BiOp does not consider or evaluate this problem at all, or consider how the Tax Act affects the authority of BLM to make decisions once it has found that an area should be offered for leasing, and leased the area.

Given BLM’s own significant uncertainty about whether the agency will be able to enforce the relied upon measures via a lease notice, and the absence of anything in the BiOp to address or evaluate the legal authority underpinning enforcement and implementation of Lease Notice 2 (and hence PDC 2), BLM’s reliance on the no jeopardy conclusion is unreasonable and violates the ESA.

IV. BLM violated its Section 7(a)(2) duty by unreasonably relying on a BiOp that fails to analyze the impacts of the whole agency action

The programmatic BiOp unlawfully failed to consider the impacts of the BLM’s whole action — leasing and development of the Coastal Plain — on threatened polar bears and their critical habitat. Courts are clear: a BiOp cannot limit its review of an agency action in a manner that segments the jeopardy analysis and thereby allows for a piecemeal approach.⁸¹ In *American Rivers v. U.S. Army Corps of Engineers*, the court found that the consultation on impacts of a dam annual management plan that limited effects analysis to one isolated year impermissibly segmented the section 7 evaluation.⁸² Specifically, the district court explained, “[i]f FWS were allowed to apply such a limited scope of consultation to all agency activities, any course of agency action could ultimately be divided into multiple small actions, none of which, in and of themselves, would cause jeopardy.” The court determined that “such impermissible segmentation would allow agencies to engage in a series of limited consultations without ever undertaking a comprehensive assessment of their overall activities on protected species.”⁸³ Similarly in *Intertribal Sinkyone Wilderness Council v. National Marine Fisheries Service*, the district court explained, “a series of short-term analyses can mask the long-term impact of an agency action” where “there could be ‘some impact,’ but not an appreciable impact, ‘in each of several

⁸¹ See, e.g., *Wild Fish Conservancy*, 628 F.3d at 522; *Intertribal Sinkyone Wilderness Council v. National Marine Fisheries Service*, 970 F.Supp.2d 988, 1007 (N.D. Cal. 2013).

⁸² *American Rivers v. U.S. Army Corps of Engineers*, 271 F. Supp. 2d 230, 255 (D.D.C. 2003).

⁸³ *Id.*

subdivided periods' of an operation that cumulatively would have 'an undeniable impact.'"⁸⁴ Moreover, where an action agency is taking "incremental steps" toward completing a larger action, FWS regulations make clear that the action agency cannot proceed with any step unless a forward-looking analysis in a BiOp has first determined that "[t]here is a reasonable likelihood that the entire action will not violate section 7(a)(2) of the Act."⁸⁵ Here, the BiOp failed to consider the impacts of leasing program on polar bears, and also failed to consider the impacts of the entire program on designated critical habitat. These failures are discussed in turn below.

A) *The BiOp fails to consider the impacts of BLM's entire leasing program on polar bears.*

While the programmatic BiOp purports to analyze the impacts of exploration and leasing on the entire Coastal Plain under the reasonably foreseeable development ("RFD") scenario, it lacks any meaningful analysis of how the sum total of the impacts from those actions will affect polar bears over the up to 130-year lifespan of the program.⁸⁶ Instead, it relies on qualitative assertions, speculation, and the assertion that no individual on-the-ground activities will be authorized unless the lessee/operator first obtains MMPA authorization for incidental taking and the individual BLM authorization is subject to a "step-down" consultation. This reliance is misplaced. FWS regulations limit cumulative effects analysis to exclude future activities requiring federal authorization, so individual "step-down" consultations will not entail any forward-looking analysis of how future exploration, development, and production activities associated with that lessee *and other lessees* will combine to affect the Southern Beaufort Sea population over the duration of the entire program. Similarly, the ESA consultations for MMPA authorizations will not consider the impacts of separate future activities occurring beyond the five-year window of the ITR that will require federal authorizations. Instead, FWS will only consider the incremental impact of the individual activity added on top of the baseline of past activities. The approach taken here thereby amounts to the same kind of impermissible segmentation of the impacts of a broader agency decision, which inevitably conceals whether the impact of the whole action would result in jeopardy.

Here, BLM elected to open the entirety of the Coastal Plain to oil and gas development impacts by opening the whole Coastal Plain to leasing and by interpreting the Tax Act to mandate it grant authorizations for access and infrastructure "necessary" to access the leased oil and gas. The result of these agency actions by BLM means that seismic exploration across even the most sensitive denning habitat and the construction of pipelines and other permanent facilities deemed "necessary" across designated critical habitat for terrestrial denning would be permissible. Critical habitat is so widespread across the high and medium oil potential areas that it is difficult to understand any assertion that critical habitat could be avoided post-leasing. The BiOp does not assess the combined effect of seismic surveys and the development footprint

⁸⁴ ; *Intertribal Sinkyone Wilderness Council*, 970 F.Supp.2d at 1007 (quoting *Wild Fish Conservancy*, 628 F.3d at 522).

⁸⁵ 50 C.F.R. § 402.14(k).

⁸⁶ BiOp at 22.

under the RFD scenario on the likelihood of survival and recovery of the Southern Beaufort Sea population. Rather, the BiOp assumes that all impacts from activities will be subject to future MMPA authorizations and that therefore the level of impact will never exceed the “negligible impact” standard imposed by the MMPA.

This assumption fails to acknowledge that, the MMPA authorization considers only past, existing, and contemporaneous impacts in determining whether an activity will have more than a negligible impact on the population; it does not consider reasonably foreseeable future activities that are beyond the time-window of the ITR itself.⁸⁷ This means that each MMPA authorization will at most consider only the contemporaneous impacts during the five-year period of an ITR, added to the baseline of past or existing impacts. Yet the BiOp acknowledges that the development activities and infrastructure will be present for decades.⁸⁸ Again, this will allow a series of “negligible” impacts to accumulate over time up until the point where the shifting baseline has become so eroded that the next increment of impacts cannot obtain MMPA authorization. At no point in this sequential five-year MMPA authorization process will FWS undertake the forward-looking analysis of the full effects of the leasing program over its projected 130-year duration, which the ESA mandates prior to the commitment of resources.⁸⁹

B) The BiOp fails to consider impacts of the whole action on critical habitat.

Even if the MMPA authorizations and the regulatory standard of negligible impact to the stock would ensure that BLM’s actions will not result in jeopardy, it is *not* the case that the MMPA would necessarily limit impacts to polar bear critical habitat to ensure against destruction or adverse modification. The BiOp’s conclusions regarding critical habitat fail to consider the impact of the *whole* agency action because: (1) FWS cannot lawfully or rationally conclude that MMPA compliance will prevent destruction or adverse modification of critical habitat; (2) FWS cannot lawfully conclude that “step-down” consultations and consultations on MMPA authorizations will prevent such loss because those consultations will each reflect only a piecemeal analysis; and (3) the “analysis” of polar bear critical habitat impacts from the entire program that is presented in the BiOp is deficient.

1) FWS cannot lawfully or rationally conclude that MMPA compliance will prevent loss or degradation of critical habitat

FWS informed BLM that it was concerned about the impact of permanent oil and gas facilities on denning polar bears specifically because MMPA authorizations would *not* address

⁸⁷ See 54 Fed. Reg. 40,338–39, 40,342 (FWS’ interpretation in the preamble to the framework regulations for Incidental Take Regulations).

⁸⁸ See, e.g., BiOp at 22 (describing development activities occurring for approximately 80 years following the first lease sale, and production *at each field* lasting approximately 80 years).

⁸⁹ See 50 C.F.R. § 402.14(k); see also *id.* § 402.02 (defining effects of the action); BiOp at 13-24 (describing the proposed action).

the impacts resulting from the presence of the facilities. In comments to BLM on the draft EIS dated March 13, 2019, FWS stated:

Given the high use of the Coastal Plain for denning by polar bears, especially when compared to the rest of northern Alaska, ensuring bears have access to preferred areas of denning habitat is important. This is highlighted by the fact that terrestrial denning is likely to continue increasing as sea ice conditions deteriorate further in future years. While Alternatives B and C provide some protection of high use polar bear denning habitat under Lease Stipulation I, there are large areas where numerous polar bears dens have been recorded (Map 3-24) that do not have restrictions on surface occupancy under these alternatives. Even if surveys were conducted under MMPA Incidental Take Regulations with the intention of reducing the potential to disturb denning bears in those areas, *Incidental Take Regulations (and hence Stipulation 5 for Alts B and C) would offer no protections against behavioral avoidance of those areas once developed. This could effectively lead to a loss of preferred denning habitat.*⁹⁰

Thus, FWS made clear that a requirement to comply with MMPA authorizations would *not* itself prevent or preclude habitat loss from polar bears avoiding areas that had been developed. For this reason, it is arbitrary and capricious to rely on Lease Notice 2 to conclude that total habitat loss from the whole action (i.e., infrastructure associated with exploration, development, and production under the RFD scenario) will remain under the threshold that would constitute destruction or adverse modification of critical habitat.

Further, the BiOp does not meaningfully address that the ESA's protection for critical habitat imposes an independent standard that is not equivalent to the standard imposed by the MMPA, and provides a distinct protection. The BiOp's assumptions that MMPA compliance ensures impacts to habitat cannot amount to adverse modification or destruction of critical habitat strips the ESA protections of having their independent effect.

Specifically, the key features that FWS identified for terrestrial denning critical habitat require no obstructions and no disturbances to the access to denning locations, as well as no disturbance at the denning locations themselves. The MMPA allows authorization of such disturbances as long as the impact does not have a *population level* effect that is more than negligible during the maximum five-year period of the authorization. A network of roads and pipelines would make a large portion of the terrestrial denning unit and the bank habitat within the unit no longer meet the requirement of being free from obstructions and disturbances. It could appreciably diminish the value of a large section of critical habitat by imposing stress on individual bears for decades into the future, with worsening consequences as climate change impacts become more severe. Even if the disturbance does not cause a population-level negative

⁹⁰ U.S. Fish and Wildlife Service. Memorandum Regarding Comments on the 2018 Draft Environmental Impact Statement (DEIS) for the Coastal Plain Oil and Gas Leasing Program for the Arctic National Wildlife Refuge, Alaska (2019) at 4 [Attachment K] (emphasis added).

effect on the Southern Beaufort Sea stock during the five-year period that would be at question in a given MMPA authorization during which part of the infrastructure is built, there could still be significant impacts on critical habitat that would not be considered or avoided under the MMPA.

- 2) FWS cannot lawfully conclude that “step-down” consultations and consultations on MMPA authorizations will prevent such loss because those consultations will each reflect only a piecemeal analysis

The BiOp cannot rely on the “step-down” ESA consultations because those later consultations will not consider the critical habitat loss from the *whole* action, but rather will be limited to considering the loss associated with the individual pipeline or pad BLM is permitting for a particular applicant or lessee, without consideration of the impacts from future projects by other applicants or lessees requiring federal authorizations.⁹¹ Similarly, the ESA consultations associated with MMPA authorizations will not consider the impacts from future activities beyond the five-year window of the ITR that require future federal authorizations.⁹² Thus, this is the only point at which the total effect on critical habitat will be considered prior to BLM leasing. By dodging any meaningful consideration of the total extent of critical habitat that would be destroyed or adversely modified due to reasonably foreseeable development resulting from this leasing decision, the BiOp has unlawfully segmented the analysis of whether the action will result in destruction or adverse modification of critical habitat.

- 3) The analysis of impacts to critical habitat in the BiOp is deficient.

Aside from its reliance on future MMPA authorizations and ESA consultations, the discussion of critical habitat impacts presented in the BiOp fails to examine the potential impacts adequately. In addition to failing to quantify the impacts, its assertions are misleading, and, without explanation, contradict comments FWS made to BLM during the NEPA process.

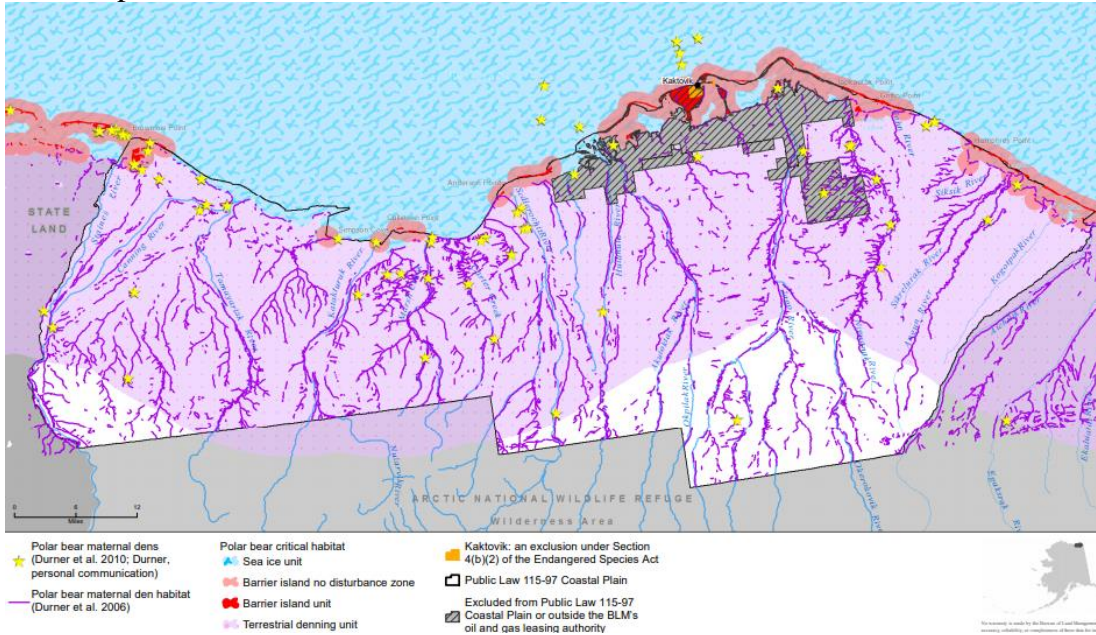
FWS plainly does not lack the necessary information to assess quantitatively how much critical habitat would be lost due to development of the RFD scenario. The image below, copied from BLM’s Environmental Impact Statement for the Coastal Plain leasing program, shows how suitable maternal denning habitat for polar bears (purple lines) is distributed throughout the Coastal Plain, and how the designated critical habitat to ensure unfettered access, and lack of disturbance, to the denning locations (light purple shading) covers almost all of the high and medium hydrocarbon potential areas BLM has identified in Map 3-6 of the FEIS.⁹³

⁹¹ See 50 C.F.R. § 402.02 (limiting consideration of cumulative effects to effects of other reasonably foreseeable activities “not involving Federal activities”).

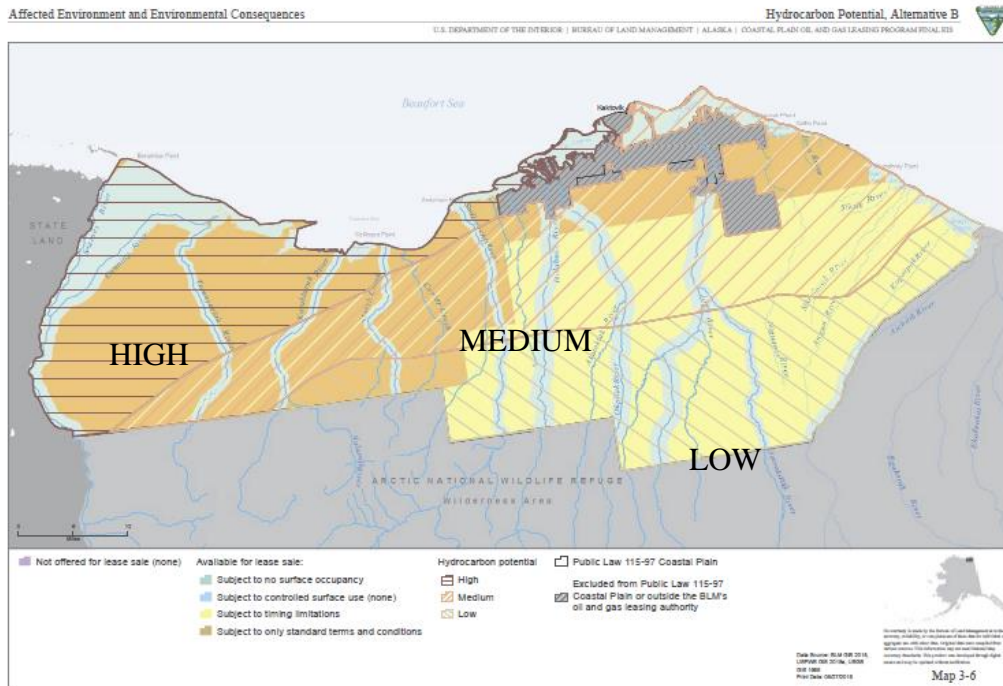
⁹² Again, due to FWS’ application of its definition of cumulative effects. *Id.*

⁹³ See FEIS, Map 3-6 [Attachment E].

Map of Polar Bear Critical Habitat:



Map 3-6:⁹⁴



⁹⁴ Notation added to mark “high,” “medium,” and “low” hydrocarbon areas more clearly.

Absent the closure of areas to leasing, it is unlikely that the development footprint for the RFD scenario could be located in an area that is *not* critical habitat since almost the entirety of the high and medium hydrocarbon potential areas are located in the terrestrial denning unit of designated critical habitat. The BiOp provides no meaningful analysis of how much critical habitat will be degraded, destroyed, or fragmented by the whole action. Instead, it makes a series of misleading assertions about the impacts to critical habitat, discussed in detail below.

Moreover, FWS advised BLM that *even without knowing the exact locations of the future development* footprint, it was possible to model the impacts to estimate a range of possible impacts based on the restrictions imposed under various alternatives.⁹⁵ FWS stated in its comments:

There are approaches that have been published in the literature that could be used to quantify impacts among alternatives *without knowing the future locations of activities*. These approaches iteratively simulate possible development scenarios (that align with what's allowed under a given alternative) and can then summarize (with the inherent uncertainty) the relative impacts to the parameter of interest across all alternatives. *This would better inform readers than a qualitative assessment alone.*⁹⁶

BLM responded by stating:

Such Monte Carlo-style simulations assume numerous (hundreds or thousands) of activity events, in an attempt to gauge the probability of impacts. However, only a relatively small number of exploration and development events are anticipated under the Coastal Plain program. The results of such simulations in these circumstances can give readers a false sense of the precision and accuracy of the impact assessment, when in fact they are just one scientific guess as to the probability of potential impacts.⁹⁷

This response shows a fundamental misunderstanding by BLM of how such simulations are used to establish and quantify a potential *range* for what the impacts are likely to be when the development happens under the one series of actual events that

⁹⁵ See Cooperating Agency Comments, *supra* note 66 at at 91-92, Comment #370.

⁹⁶ *Id.* (emphasis added). FWS provided links to two such studies in support of its comment—Wilson, R.R., Liebezeit, J.R. and Loya, W.M. (2013), Accounting for uncertainty in oil and gas development impacts to wildlife in Alaska. Conservation Letters, 6: 350-358, <https://doi.org/10.1111/conl.12016>; and Copeland HE, Doherty KE, Naugle DE, Pocewicz A, Kiesecker JM (2009) Mapping Oil and Gas Development Potential in the US Intermountain West and Estimating Impacts to Species. PLOS ONE 4(10): e7400. <https://doi.org/10.1371/journal.pone.0007400>. See *id.*; see also Attachments C, D (pdfs of the two papers).

⁹⁷ Cooperating Agency Comments, *supra* note 66 at 91-92, Comment #370.

occurs. By modeling the outcomes for a given scenario thousands of times and then examining the mean and range of outcomes, these simulations seek to provide a quantitative estimate of what the most likely outcome will be and what the range of probable outcomes is. This provides at the very least a quantified range with upper, lower, and likely quantitative estimates for the amount of habitat that would be affected by the development footprint, which is more informative than mere qualitative assertions.

It is arbitrary and capricious for FWS to have acknowledged that such an analysis is feasible and informative to conduct, and then failed entirely to conduct that very analysis to inform the BiOp.

Instead of quantifying an estimated range for how much of the terrestrial denning unit of critical habitat would be compromised by the infrastructure associated with the RFD scenario, the BiOp offers a series of grossly misleading statements about the limited potential for infrastructure to overlap with critical habitat. The BiOp also irrationally fails to explain why the additional energetic costs to maternal polar bears and cubs from extra travel due to disturbance from or avoidance of infrastructure does not amount to impairment of the value of the vast portion of critical habitat that will have roads and pipelines running between that habitat and the coast.

For the terrestrial denning unit of polar bear critical habitat, there are four physical or biological features that FWS has determined to be essential, two of which are: “unobstructed, undisturbed access between den sites and the coast” and “the absence of disturbance from humans and human activities that might attract other polar bears.”⁹⁸

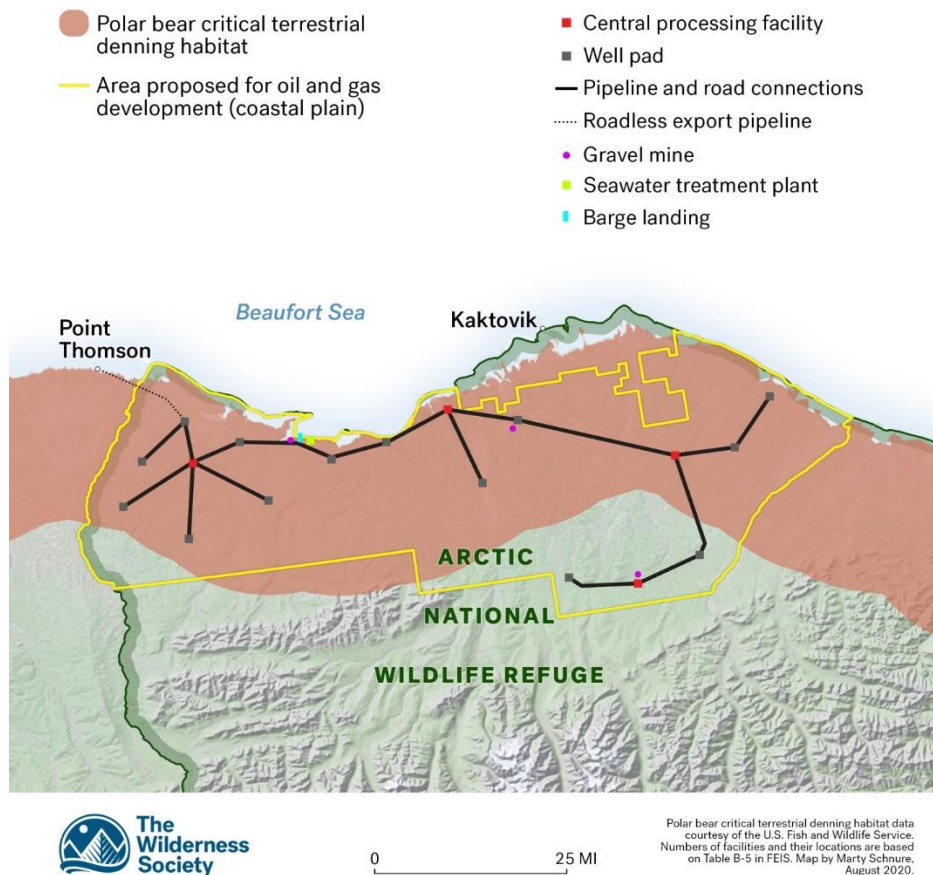
The BiOp concedes that 174 miles of gravel roads to connect the various processing facilities and well pads ranging from 12 acres to 50 acres in size each, and 212 miles of pipeline will be constructed under the RFD scenario.⁹⁹ Yet it fails to evaluate how probable layouts for this footprint would affect terrestrial denning habitat, in particular with respect to imposing additional stress on vulnerable mothers and cubs making their way from den locations due to disturbance and displacement. Depicting probable layouts for the RFD makes it immediately obvious that a large amount of the terrestrial denning unit of critical habitat will have roads and other infrastructure lying between the denning locations and the coastline, thereby degrading its value.

The map below provides an example of a realistic surface development scenario under Alternative B of the final EIS imposed upon the Coastal Plain and the polar bear terrestrial critical habitat unit.¹⁰⁰

⁹⁸ See 75 Fed. Reg. 76086; BiOp at 71.

⁹⁹ BiOp at 105.

¹⁰⁰ The map was prepared by Marty Schnure of The Wilderness Society and reflects Alternative B in the Final EIS, consistent with the parameters listed in Table B-5. Notably, due to its scale,



With regard to how oil and gas structures will affect maternal polar bears traveling to or from denning locations and their cubs, the BiOp states:

Industry facilities could also obstruct movements of bears, including movements of pregnant females moving from sea ice into terrestrial areas to prospect for den sites in autumn and early winter, or those of non-denning bears near or along the coast or barrier islands in late summer and autumn. However, polar bears regularly traverse oil and gas facilities along the Beaufort Sea coast to the west of the Proposed Program Area, crossing roads and causeways in some situations and moving around them in others. As a result, infrastructure appears to provide only small-scale, local obstructions that polar bears move through or circumvent,

this map does not depict how the complex topography and terrain of the Coastal Plain would require linear structures to wind through ravines and/or cut through river embankments.

depending on location and other circumstances. *Females and cubs returning to sea ice from terrestrial den sites may be more sensitive to disturbance than non-denning bears, due to the nutritional state of the female after months of fasting and the small size and other physiological limitations of cubs immediately after abandoning dens.*¹⁰¹

Thus although the obstructions posed by facilities such as roads and pipelines can be surmounted or circumvented by polar bears in general, the BiOp acknowledges that the displacement and disturbance entailed may have a greater impact on emerging cubs and mothers. Yet it does not explain why this impact does not degrade the value of the critical habitat.

A 2018 study not cited in the BiOp provides the best available scientific information about how female polar bears in the spring are in a state of energy deficit to a greater extent than previously thought, and therefore vulnerable to any additional stressors that would increase energy demands.¹⁰² That study, Pagano et al. (2018), examined the field metabolic rates of female polar bears (n = 9) during April 2014–2016 in the Beaufort Sea region, explaining that:

We found that polar bears in the spring exhibit greater energetic demands than those of previous predictions (13, 14) both for maintenance functions and locomotion.... More than half of the bears in this study lost body mass, meaning that over the period of observation, their energy demand exceeded that gained by consuming prey. Although we cannot assess the effects of post-capture recovery on our observed foraging rates, previous researchers reported that 42% of adult female polar bears in the Beaufort Sea during the spring from 2000 to 2016 had not eaten for ≥ 7 days before capture (38). This rate of fasting was 12% greater than measurements from 1983 to 1999 (38), suggesting that spring ice conditions are affecting prey availability for polar bears even before the summer open water period. Additionally, access to optimal habitats (annual ice over the continental shelf) is expected to and in some areas has already declined as a result of climate change (39, 40). Survival rates of cubs, body condition of adult females, body size of young, litter mass, and yearling numbers have also exhibited declines in some regions of the Arctic (41, 42). *Together with our data on the cost of activity and energy acquisition (Figs. 3 and 4), these studies suggest that an increasing proportion of bears are unable to meet their energy demands.* Our results indicate that *further increases in activity and movement resulting from declining and increasingly fragmented sea ice are likely to increase the demand side of the energy balance ratio* (43). Inherently high energy demands create a physiological constraint that makes it difficult for polar bears to compensate for both increases

¹⁰¹ BiOp at 113 (emphasis).

¹⁰² See A. Pagano, G. Durner, K. Rode, T. Atwood, S. N. Atkinson, E. Peacock, D. Costa, M. Owen, & T. Williams. High-Energy, high-Fat Lifestyle Challenges an Arctic apex Predator, the Polar Bear. (2018) [Attachment H].

in activity and declines in the availability of energy-dense prey as habitats become more fragmented (44). Hence, increases in movement and activity rates mediated by the loss of sea ice habitat are likely to have negative cascading effects on polar bear reproductive success and, ultimately, their populations.¹⁰³

In short, this indicates that the majority of adult female bears in the Beaufort are now in a state of energy deficit and mass loss in the spring, and that habitat conditions that result in increased activity and movement exacerbate that already dire condition. Thus, habitat disturbances that require bears to expend additional effort in an attempt to circumvent them, or induce stress by their presence, may have more serious impacts on adult female bears than previously thought, or analyzed in the BiOp.¹⁰⁴

Notably, FWS comments on the preliminary final EIS rejected BLM's contention that encounters between denning bears and roads or pipelines would be infrequent under Alternative B.¹⁰⁵ FWS explained:

The statement that denning bears would infrequently encounter roads or pipelines because dens are concentrated along the coast should be removed. First, nothing in the preferred alternative would restrict the development of a pipeline or road near the coastline. Second, while denning is concentrated along the coast, dens can occur 20+ miles inland and a considerable number of dens are documented 5+ miles from the coast.¹⁰⁶

Thus, despite apparently recognizing that avoiding facilities may impose energetic costs on mothers and cubs that they cannot afford, and that such encounters would not be infrequent under Alternative B, FWS fails to evaluate how much of the terrestrial denning unit would be impaired by that effect. The BiOp does not explain how having to navigate or avoid infrastructure would affect the value of the terrestrial denning critical habitat to mothers and cubs in light of their acknowledged greater sensitivity to displacement or disturbance.

In discussing impacts to the terrestrial denning unit of critical habitat, the BiOp cursorily asserts that the Beaufort Sea ITR “included analysis of whether industry facilities act as physical barriers that obstruct polar bear movements and concluded these facilities represent ‘only a small-scale, local obstruction’ to movements.”¹⁰⁷ This assertion misrepresents the quoted language from the ITR. The ITR is specifically referring to obstruction from *offshore* production facilities—5 to 11 acre artificial islands in the Beaufort Sea—not extensive networks of *on-shore*

¹⁰³ *Id.* at 360 (emphasis added).

¹⁰⁴ The failure to consider this study (Pagano (2018)) also violates the requirement to consider the best available scientific information.

¹⁰⁵ See FWS comments, *supra* note 65, Comment #70.

¹⁰⁶ *Id.*

¹⁰⁷ BiOp at 123.

facilities such as the system of pipelines, pads, roads, and central processing facility in the RFD scenario.¹⁰⁸ Moreover, the “analysis” in the ITR is limited to conclusory assertions, and does not evaluate how an extensive network of onshore facilities cutting through the areas used for maternal denning, would affect emerging mothers and cubs by inducing disturbance and displacement responses that impose energetic costs.¹⁰⁹ The BiOp fails to rationally address how much critical habitat is impaired by virtue of adding obstructions and sources of disturbance between the denning locations and the coast.

The BiOp’s assessment of direct loss of denning habitat from the footprint of the facilities themselves is also faulty. The BiOp cites anecdotes about polar bears denning “successfully” on or near abandoned and active industrial facilities to support the assertion that whether or not the industrial facilities “would affect the physical characteristics of denning habitat, preventing its future use for denning, would likely vary with the situation.”¹¹⁰ But FWS’ prior comments to BLM make clear that successful emergence from dens is not evidence that there were no impacts on the longer term survival of the cubs.¹¹¹ FWS explained:

While it is true that two females emerged from dens successfully, it should not be implied that there was no impact to the reproductive success of the female as a result of being in close proximity to industry. Studies demonstrate that being forced to emerge from a den early can have significant survival impacts on cubs post emergence. Successful emergence from dens does not mean that denning near development did not have an impact or cause early emergence resulting in reduced cub survival.¹¹²

¹⁰⁸ See 81 Fed. Reg. 52,293.

¹⁰⁹ The cursory assertions in the ITR do not even address whether the purported observations included any mothers with newly emerged cubs.

¹¹⁰ BiOp at 123. The BiOp repeats the faulty assertion regarding successful denning in its conclusions regarding critical habitat. *Id.* at 133 (“We find two factors that reduce the potential for the Proposed Program to affect the physical features of banks to the extent that denning is discouraged. First, it is not apparent, based on the history of the oil and gas industry in the Beaufort Sea region, that oil and gas infrastructure reduces the habitat’s capacity to support denning. There are a number of cases of polar bears denning, usually successfully, in drifts created in the lee of infrastructure. Therefore, the degree to which the presence of structures would affect the value of denning habitat is unknown (although human presence and activities associated with structures is known to affect the use of habitat).”).

¹¹¹ See FWS comments, *supra* note 65, at 26 Comment #66, citing Rode, K.D., J. Olson, D. Eggett, D.C. Douglas, G.M. Durner, T.C. Atwood, E.V. Regehr, R.R. Wilson, T. Smith, and M. St. Martin. 2018. Den phenology and reproductive success of polar bears in a changing climate. *Journal of Mammalogy* 99:16-26.

¹¹² *Id.*

Thus, without longer-term observation of the survival of the cubs referred to in those anecdotes, the evidence of denning at industry sites cannot be equated with evidence that the denning habitat is not impaired by the industrial facilities. FWS thus lacks information to show that the disturbances associated with these structures will not affect the duration of denning, and thereby diminish cub survival.¹¹³ And the best available evidence shows that maternal polar bears have left dens in late March in response to, or very soon after, relatively mild industrial disturbances.¹¹⁴ As every additional day in the protection of a den can benefit cub survival potential, even if cubs appear able to move away with their mother, a disturbance that hastens departure can reduce post-emergence survival.¹¹⁵

The BiOp then offers the conclusory statement that in any case, the amount of habitat lost would be a “very small proportion” of polar bear critical habitat.¹¹⁶ Again, this assertion fails to take into account how much of the denning habitat is not only directly lost to the physical footprint of facilities, but how much is impaired by virtue of physical obstructions and disturbance sources lying between the denning locations and the coast, which would impose energetic costs on mothers and cubs moving to or from the coast.

After making that assertion, the BiOp states that because uncertainties prevent quantifying the impacts, the BiOp’s analysis relies on “factors built into” the Proposed Program, which include the requirements for MMPA compliance under Lease Notice 2 and the requirement for step-down ESA consultations.¹¹⁷ The BiOp also asserts that the 2,000 acre limitation in the Tax Act “limits the area that would be covered by production and support facilities to 2,000 Federal acres” and “pre-emptively limits the amount of terrestrial denning habitat that could be directly affected.”¹¹⁸ However, again, it is devoid of analysis of how the hundreds of miles of roads and pipelines between the various pads and central processing facilities that will be allowed under BLM’s interpretation of that 2,000 acre limitation will spread

¹¹³ See Rode *et al.*, *Den phenology and reproductive success of polar bears in a changing climate*, 99 *Journal of Mammalogy*, 16–26 (2018) (reporting that the mean denning duration for females that produce cubs that survived until the post-emergence observation time was 113.8 + 3.8 days, whereas the mean denning duration for females that had no cubs with them at the observation time was 98.9 + 7.4 days).

¹¹⁴ Steven C. Amstrup, *Human Disturbances of Denning Polar Bears in Alaska*, 46 *ARCTIC* 246-250, 248 (1993) (discussing “bear 6”, who left her den shortly after March 9, 1984, possibly due to a snow machine passing about 200 meters away in late March); *id.* at 249 (discussing “bear 12” who opened her den on March 19 in response to the presence of tracked vehicles and two light snow machines passing about 65 meters away, and left the den with her cubs just two days later).

¹¹⁵ See Steven C. Amstrup and Craig L. Gardner, *Polar bear maternity denning in the Beaufort Sea*, *Journal of Wildlife Management* (1994); see also Rode *et al.*, *supra* note 113.

¹¹⁶ BiOp at 123.

¹¹⁷ *Id.*

¹¹⁸ *Id.* at 123, 133.

disturbance and obstructions through a far larger area of terrestrial denning critical habitat than the footprint of those facilities. At no point does the BiOp examine how the layout of the foreseeable facilities will place much of the critical habitat on the inland side of sources of disturbance and obstruction.

The critical habitat assessment also fails to take into account how losses to the terrestrial denning habitat unit resulting from coastal erosion due to climate change will cumulate with the impacts from the RFD scenario infrastructure running between the more inland denning habitat and the coast. Though describing that such losses from climate change are foreseeable,¹¹⁹ the BiOp fails to consider whether the loss of the unobstructed denning habitat due to climate change exacerbates the impacts of placing obstructions and sources of disturbance between the sea and the denning habitat that will be on the inland side of the RFD scenario's extensive road and pipeline system.

The BiOp also includes the following misleading assertions, on which the conclusions regarding critical habitat rely:

Meanwhile, two lease stipulations would effectively steer the siting of infrastructure away from suitable denning habitat that exists in the Program Area (there is < 0.4 percent overlap between suitable terrestrial denning habitat and the Program Area). Lease stipulation 1 would reduce potential effects to suitable denning habitat by prohibiting surface occupancy by permanent oil and gas facilities including gravel pad, roads, airstrips, and pipelines within specified streambeds and within a prescribed setback distance of either 1 mile or 0.5 miles. This is important because much of the terrestrial denning habitat available within the Program Area exists within these NSO zones. Lease Stipulation 9 would further require that, prior to beginning exploration or development within 2 miles of the coast (another area containing a relatively higher degree of terrestrial denning habitat compared with the Program Area as a whole), the lessee/operator/contractor must develop a conflict avoidance and monitoring plan to assess, minimize and mitigate the effects of any infrastructure and its use on polar bear habitat (among other resources).¹²⁰

First, the assertion that there is less than a 0.4% overlap between “suitable terrestrial denning habitat” and the Program Area is extremely misleading. The vast majority of the Program Area is designated terrestrial critical habitat, and the portion of the designated terrestrial denning critical habitat that falls within the Coastal Plain of the Refuge is approximately

¹¹⁹ *See id.* at 85 (“Climate change may also affect the availability and quality of denning habitat on land. Durner et al. (2006) found that 65% of terrestrial dens found in Alaska between 1981 and 2005 were on coastal or island bluffs. These areas are suffering rapid erosion and slope failure as permafrost melts and wave action increases in duration and magnitude.”).

¹²⁰ *Id.* at 133-134.

1,193,600 acres, which is 33% of the total designated terrestrial denning critical habitat for the species.¹²¹ The actual denning locations within the Program Area terrestrial critical habitat unit are the bank areas, which constitute about 4600 acres, and are spread throughout the designated terrestrial critical habitat on the Coastal Plain. Thus, the reality is that for an enormous 33% of the total designated terrestrial denning critical habitat for the polar bear, *all* of the suitable bank denning locations are within the Program Area.

In its March 13, 2019 comments on the draft EIS, FWS told BLM that it was concerned that “large areas where numerous polar bear dens have been recorded” were not included in the “NSO” areas of Lease Stipulation 1 as delineated for Alternatives B and C, and that regardless of MMPA Incidental Take Regulations, those areas would be vulnerable to loss of preferred denning habitat due to behavioral avoidance.¹²² Further, while the BiOp asserts that stipulations will keep infrastructure out of “NSO” zones, BLM has made clear its interpretation that it lacks authority under the Tax Act to deny authorization for any facility or activity that is “necessary” for “access” to leased oil and gas—thus these areas remain vulnerable to roads and pipelines, and other infrastructure and activities.

Moreover, in comments on Stipulation 5 in the draft EIS,¹²³ FWS again asserted:

Alternatives B and C do not provide protections for the possible behavioral avoidance of important polar bear denning habitat even with a small development footprint. Alternative D allows polar bears unhindered access to large areas of their preferred denning areas in the Coastal Plain. This will become increasingly important as the density of land-based dens increases in future years due to sea ice loss.¹²⁴

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

¹²¹ *Id.* at 122.

¹²² See FWS comments, *supra* note 90 at 4.

¹²³ Stipulation 5 is the same in the draft and final EIS.

¹²⁴ See FWS comments, *supra* note 90 at 8 (emphasis added); see also FEIS Appendix S at S-355, Comment #39.

Further, the BiOp does not offer any meaningful assessment of how much of the terrestrial denning critical habitat is outside of the NSO area, and therefore remains totally vulnerable to permanent facilities. And while requirements to avoid or minimize the impacts of infrastructure on polar bear habitat might avoid wasteful duplicative roads, pipelines, or pads, they clearly would not prevent infrastructure from going through polar bear critical habitat, as almost the entirety of the high and medium hydrocarbon potential areas identified by BLM are terrestrial denning critical habitat.

In sum, the BiOp is devoid of any meaningful assessment of how much terrestrial denning critical habitat will be degraded by industrial infrastructure associated with the RFD scenario being placed between the coastline and the denning locations, which imposes energetic burdens on mothers and cubs. Thus, the BiOp does not provide the required analysis of the impacts of the whole action on polar bear critical habitat.

Due to the failure to meaningfully consider the impacts of the whole action on critical habitat, and its reliance instead on piecemeal future MMPA permitting and ESA consultations for individual components of the RFD scenario, the BiOp impermissibly segments the analysis required by the ESA, and is unlawful.

As a result of the failure to adequately consider the impacts of the whole action, in particular with regard to critical habitat, the BiOp is also inconsistent with FWS regulations governing formal consultation, which state:

When the action is authorized by a statute that allows the agency to take incremental steps toward the completion of the action, the Service shall, if requested by the Federal agency, issue a biological opinion on the incremental step being considered, including its views on the entire action. Upon the issuance of such a biological opinion, the Federal agency may proceed with or authorize the incremental steps of the action if...[inter alia]

(4) The incremental step does not violate section 7(d) of the Act concerning irreversible or irretrievable commitment of resources; and

(5) There is a reasonable likelihood that the entire action will not violate section 7(a)(2) of the Act.¹²⁵

First, for the reasons described above, the analysis in the BiOp is not sufficient to establish a reasonable likelihood that the entire action would not result in adverse modification of critical habitat. Second, BLM's position that it lacks authority to deny authorizations for facilities or activities that are "necessary" for "access" to leased oil and gas, means that the action of issuing a lease represents an irretrievable commitment of some amount of the surface of

¹²⁵ 50 C.F.R. § 402.14(k).

the Coastal Plain of the Refuge to be occupied by such facilities. This is not a situation where there is some critical habitat in or near a leased parcel, such that it could reasonably be avoided when on-the-ground activities on the lease are authorized at a post-leasing stage. Yet the BiOp depends expressly on future post-leasing step-down consultations to reach its conclusion that there will be neither jeopardy nor adverse modification as a result of the indirect effects of the leasing decision. However, it is foreseeable that avoiding critical habitat will not be possible for leased areas located in and surrounded by critical habitat. As a result, BLM's actions will irretrievably commit resources prior to an ESA consultation concluding that the total infrastructure and activities would not result in adverse modification. Under BLM's apparent interpretation of its authority under the Tax Act, the evaluation of reasonable and prudent alternatives to avoid adverse modification would be foreclosed after the areas have been open to leasing. Thus, BLM cannot lawfully rely on the BiOp for the designation of areas to open to leasing, nor to proceed with a lease sale.

V. BLM Unreasonably Relies on a BiOp that Fails to Consider Available Scientific Information Relevant to Evaluating the Impacts of Seismic Surveys

The ESA requires an agency to use “the best scientific and commercial data available” when formulating a BiOp.¹²⁶ “An agency complies with the best available science standard so long as it does not ignore available studies, even if it disagrees with or discredits them.”¹²⁷ When consulting under the ESA, “FWS cannot ignore available biological information.”¹²⁸

The BiOp fails to assess the impacts of an area-wide seismic survey despite having abundant information to do so due to the application for MMPA authorization to conduct that area-wide survey that was pending before FWS; acknowledging that such an area-wide survey is a first step for identifying where to drill exploration wells, and stating that such a seismic survey is anticipated to occur *within the next two years*.¹²⁹ Further, as discussed above, the BiOp failed to assess these impacts despite FWS statements to BLM that obtaining MMPA authorization for seismic surveys would be “problematic” for high density denning areas within the Coastal Plain, which occur within the high and medium oil potential areas of the Coastal Plain, leading FWS to recommend that extensive areas not be leased to protect polar bear denning. The failure to utilize available, relevant scientific studies to evaluate the potential impacts of seismic surveys violates the requirement to consider the best available scientific information to analyze the impacts of the agency's action.

Prior to the date that the BiOp was finalized, two scientific studies were published that are highly relevant to evaluating the impacts of seismic surveys on maternal polar bears denning

¹²⁶ 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(g)(8).

¹²⁷ *San Luis & Delta–Mendota Water Authority v. Locke*, 776 F.3d 971, 995 (9th Cir.2014).

¹²⁸ *Kern Cnty. Farm Bureau v. Allen*, 450 F.3d 1072, 1080-81 (9th Cir.2006) (quoting *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir.1988)).

¹²⁹ BiOp at 14-15, 104.

on the Coastal Plain and their cubs, yet the BiOp makes no mention of them. The first is a study by FWS scientist Ryan Wilson and USGS scientist George Durner that presents a model for quantitatively evaluating the impacts to denning mothers and cubs specifically on the Coastal Plain from an area-wide seismic survey, taking into account the impact of mitigation measures such as time and place restrictions, and den-locating technologies (aerial Forward Looking Infrared (“FLIR”) detection surveys).¹³⁰ The omission of any mention of this model is astonishing given that FWS held a public comment period on the application of the model to its decision-making under the MMPA and ESA, and that the FWS comment period opened about a month prior to the time that FWS finalized the BiOp on March 13, 2020.¹³¹ It is also astonishing in light of the fact that the model appears to have been developed in the course of FWS evaluating an application by SAExploration for MMPA authorization for an area-wide seismic survey of the Coastal Plain proposed in 2018.¹³² Despite seeking comment on the model, FWS finalized the BiOp without addressing the model in any manner, and without even waiting for the comments it had elicited.

The second paper, by Tom Smith et al., is a study published on February 27, 2020 evaluating the success rate for FLIR polar bear den detection surveys, and concluding that 55% of maternal dens confirmed to be present were not detected by FLIR surveys.¹³³ The Smith paper illuminates that the impacts quantified by the Wilson and Durner model likely underestimate actual impacts by overestimating the success rate for FLIR surveys. Had FWS actually evaluated the Wilson and Durner model, and the Smith paper, FWS could have quantitatively assessed the impacts of an area-wide seismic survey proceeding in the high-density denning areas, and indeed could have utilized the best available scientific information from previously published studies to evaluate the range of risks taking into account factors omitted by Wilson and Durner.

This is plainly not a situation where FWS lacks location-specific information that will only become available at a later stage, or where the activity will occur at a distant time, when conditions may be different than at present. The seismic survey BLM anticipates will be *area-wide* and will take place within a mere two years. BLM was considering an application for precisely that area-wide seismic survey as early as July 2018—meaning it had information from

¹³⁰ Wilson and Durner, *supra* note 14.

¹³¹ See 85 Fed. Reg. 8887 (Feb. 18, 2020).

¹³² The Wilson and Durner study used the proposed area-wide seismic survey plans submitted to BLM by SAExploration to set-forth the spacing for the survey in their model. See Wilson and Durner *supra* note 14 at 204, 208 (“Proposed seismic surveys in the 1002 Area state that receiver and source lines will be spaced at intervals of 200m (SAExploration 2018)... This pattern would continue across the entire study area, leading to a maximum footprint depicted by a 200 - m× 200 - m grid (Fig. 1).”); (“We assumed that support “For our analysis, we assumed that seismic grids would be spaced at intervals of 200 m, which has been proposed for the 1002 Area (SAExploration 2018).” SAExploration’s comments to FWS on the Wilson and Durner study make it clear that they applied to FWS for a MMPA incidental take authorization.

¹³³ Smith TS, *supra* note 16.

the industry about the spacing, equipment, and precise timing proposed for the seismic survey. Thus, despite having detailed information regarding a Coastal Plain-wide seismic survey, and a published model by FWS and USGS scientists to assess the proposed survey, the BiOp just defers the relevant analysis to a later date. This failure violates the requirement to consider the best available scientific information.

The Wilson and Durner study shows that, even making many optimistic assumptions that may underestimate impacts, for a large section of the high hydrocarbon potential area identified by BLM, seismic surveys likely cannot comply with the MMPA unless they take place after April 12th for one high density denning area, and after April 19th for the second high density denning area. As seismic surveys must take place during winter to avoid damage to tundra, this makes it highly questionable whether the necessary snow conditions will persist long enough for the areas to be surveyed, especially since climate change has shortened open tundra periods and resulted in closures during recent years in areas near the Coastal Plain of the Refuge. As a recent scientific study summarized, based on information from the Northern Oil & Gas Team of the Alaska Department of Natural Resources: “The winter travel season in the foothills of the central North Slope has dropped below 100 d, and snow cover did not reach adequate depth (23 cm) for ADNR [Alaska Department of Natural Resources] to open for travel there in 3 of the last 16 yr. Neither the upper nor lower foothills had enough snow to be opened during the winter of 2018–2019, the winter when SAExploration intended to start seismic surveys in the 1002 Area.”¹³⁴ Thus there is good reason to think that snow conditions sufficient to protect tundra will not persist in the early spring.

For an area that appears to encompass about 150,000 acres¹³⁵ of the high and medium hydrocarbon potential lands identified by BLM, the restrictions needed to avoid lethal or injurious take would require that the seismic surveys be delayed until a point in the season where snow conditions may preclude actually completing the surveys.¹³⁶

Since individual lease tracts must be a compact area not exceeding 60,000 acres,¹³⁷ multiple leased tracts likely will fall entirely or substantially within the areas where seismic surveys will be “problematic.” Thus, seismic exploration may be precluded as a practical matter on certain lease tracts.

¹³⁴ Reynolds, M. K., J. C. Jorgenson, M. T. Jorgenson, M. Kanevskiy, A. K. Liljedahl, M. Nolan, M. Sturm, and D. A. Walker. 2020. Landscape impacts of 3D-seismic surveys in the Arctic National Wildlife Refuge, Alaska. *Ecological Applications* 00(00):e02143. 10.1002/eap.2143, at 8.

¹³⁵ Estimated by placing a 1-mile buffer around the bank habitat within the higher density core denning areas FWS identified.

¹³⁶ See Wilson and Durner, *supra* note 14 at 206 (“[I]f snow conditions deteriorated early in the season, those areas could miss being surveyed...[the restrictions] on the timing of when activity can occur across the study area... could be problematic if snow conditions deteriorated earlier in the season.”).

¹³⁷ 43 C.F.R. § 3130.4-1 (regulations governing lease tract size in the NPR-A).

Thus, it is foreseeable that a situation will soon arise where the inconsistency between BLM's position that it lacks authority to deny any authorization "necessary" for "access" and its promise to FWS to deny authorizations unless MMPA take authorization is obtained in advance of the activity, could result in such activities occurring absent MMPA take authorization. It is also foreseeable that a situation will soon arise that will test whether a lease notice is a sufficient mechanism to impose the requirement to obtain advance MMPA authorization. Yet, rather than analyze what the potential impacts of an area-wide seismic survey are based on available information such as the directly on-point Wilson and Durner study, and the Smith study, and in light of uncertainty about the enforceability of BLM's promise, the BiOp simply ignores the question. FWS had ample information to know that reliance on the lease notices alone would be tested given that MMPA authorization would be "problematic" for large and important areas, but instead of rationally addressing and assessing the risks entailed in that situation, it has impermissibly ignored them.

In sum, instead of evaluating the studies by Smith and Wilson and Durner, FWS did not acknowledge this information, rendering the BiOp arbitrary and capricious.¹³⁸ The BiOp does not evaluate what the impact would be on the Southern Beaufort Sea population of losing any specified number of cubs or mothers due to the harms of an area-wide survey. Nor does it evaluate whether impairment of the SBS stock would impact the survival or recovery of the species. Instead it presumes that Lease Notices 1 and 2 will prevent the impact from happening at all because MMPA authorization will be obtained first, and therefore the impacts can be no more than negligible. In short, it presumes without any analysis that these mitigation measures will be enforceable and will be enforced perfectly, and lacks any analysis of what the impacts would be from foreseeable seismic activities *without* those measures. As discussed in detail above, both due to BLM's own statements regarding limitations on its authority, and the reliance on a lease notice to effectuate the mitigation measures, such a presumption is unsupported. Thus, the failure to consider these studies is important because they should have informed an evaluation of whether the mitigation measures relied upon for the "no jeopardy" conclusion would be enforceable by BLM, and what the consequences would be should the lease notice not prove enforceable by BLM.

VI. BLM Unreasonably Relies on a BiOp that Fails to Analyze Whether the Contribution to Carbon Emissions from Combustion of Oil and Gas Produced Under the Coastal Plain Leasing Program Will Result in Jeopardy or Destruction or Adverse Modification of Critical Habitat for Polar Bears

The BiOp is devoid of analysis on how the additive greenhouse gas emissions that will be caused by the oil and gas leasing of the Coastal Plain, acting cumulatively with greenhouse gas

¹³⁸ See, e.g., *Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv.*, 807 F.3d 1031, 1047–48 (9th Cir. 2015) ("An agency complies with the best available science standard *so long as it does not ignore available studies*["]) (emphasis added).

emissions from other sources, will affect polar bears and polar bear critical habitat. In lieu of such analysis, the BiOp relies on a 2008 FWS memorandum to assert that FWS need not assess the impacts from downstream emissions from agency actions producing oil and gas. The BiOp states: “We identified no mechanisms by which the Proposed Program would affect the availability of sea ice proximal to terrestrial denning habitat.”¹³⁹ After making that assertion, the BiOp states: “Note that greenhouse gas emissions resulting from consumption of petroleum produced at particular drilling sites are not considered effects of production; Service Policy Memorandum dated May 14, 2008).”¹⁴⁰

The relevant part of that Memorandum states:

A question has also been raised regarding the possible application of section 7 to effects that may arise from oil and gas development activities conducted within the habitat of listed species.... the future effects of any emissions that may result from the consumption of petroleum products refined from crude oil pumped from a particular drilling site would not constitute indirect effects and therefore would not be considered during section 7 consultations. The best scientific data available to the Service today do not provide the degree of precision needed to draw a causal connection between the oil produced at a particular drilling site, the GHG emissions that may eventually result from the consumption of the refined petroleum product, and a particular impact to listed species or their habitats. At present there is a lack of scientific or technical knowledge to determine a relationship between oil and gas leasing, development, or production activity and the effects of the ultimate consumption of petroleum products (GHG emissions). As new information and knowledge about emissions and specific impacts to species and their habitats is developed, we will adapt our framework for consultations accordingly. This is particularly important as more regionally-based models are developed and refined to the level of specificity and reliability needed for the Service to execute its implementation of the Act's provisions ensuring consistency with the statute's best available information standard.¹⁴¹

In a nutshell, the 2008 Memorandum found that *at that time*, there was not sufficient scientific information to evaluate the climate change inducing impacts of oil and gas development from a given federal action on the habitat of a listed species affected by climate change, but recognized that such information could become available in the future. FWS relied upon the 2008 Memorandum but did not consider whether now, *over 12 years later*, there is scientific information available that could inform an assessment of the climate change related impacts of BLM's action. However, it is possible to gauge how much sea-ice from the Arctic Ocean will be lost due to the additive emissions resulting from the Coastal Plain leasing

¹³⁹ BiOp at 122; 133 (same).

¹⁴⁰ *Id.* at 122; *see also*

¹⁴¹ U.S. Fish and Wildlife Service. Memorandum Regarding Expectations for Consultation on Actions that Would Emit Greenhouse Gases at 2-3 (May 14, 2008) [Attachment F].

program, and thereby assess the extent of impacts on polar bear survival and recovery, and polar bear critical habitat. FWS had available to it information regarding the magnitude of emissions associated with the Coastal Plain oil and gas program, as BLM quantified the *additive* emissions that will result from the program by year in the final EIS. And a 2016 scientific study quantifies the areal extent of sea-ice loss per ton of anthropogenic CO₂ emissions. FWS' failure to evaluate this information violates the requirement to use the best available scientific information, and is a failure to consider reasonably foreseeable effects of the agency action.

In the 2016 study, published in *Science*, Notz and Stroeve found:

[W]e can directly estimate that the remainder of Arctic summer sea ice will be lost for roughly an additional 1000 Gt of CO₂ emissions on the basis of the observed sensitivity of 3.0 ± 0.3 m² September sea-ice loss per ton of anthropogenic CO₂ emissions. Because this amount is based on the 30-year running mean of monthly averages, it is a very conservative estimate of the cumulative emissions at which the annual minimum sea-ice area drops below 1 million km² for the first time. In addition, internal variability causes an uncertainty of around 20 years as to the first year of a near complete loss of Arctic sea ice (18, 30). For current emissions of 35 Gt CO₂ per year, the limit of 1000 Gt will be reached before mid-century. However, our results also imply that any measure taken to mitigate CO₂ emissions will directly slow the ongoing loss of Arctic summer sea ice. In particular, for cumulative future total emissions compatible with reaching a 1.5°C global warming target—i.e., for cumulative future emissions appreciably below 1000 Gt—Arctic summer sea ice has a chance of long-term survival, at least in some parts of the Arctic Ocean.¹⁴²

This important study provides an estimate of September sea ice loss area of 3.0 ± 0.3 m² per each ton of anthropogenic CO₂ emissions. Given the finding that September sea ice will be completely lost by the middle of this century at current emissions rates, it also provides a means of gauging how much sooner those effects will happen due to any action that has the effect of inducing additional emissions, and thereby reaching the 1000 Gt threshold sooner than otherwise. Thus, given information about the tons of additional CO₂ that will be emitted over time due to the agency action, it is possible to quantify the acreage of September sea-ice loss that can be attributed to that action. Similarly, this information makes it possible to examine and quantify the extent to which the action will undermine attainment of the mitigation that is necessary for polar bears to survive and recover.

Consistent with the Notz and Stroeve study, the best available science indicates that due to the relationship between polar bears and sea ice, actions that undermine emissions reductions by

¹⁴² See Notz, Dirk and Julienne Stroeve, Observed Arctic sea-ice loss directly follows anthropogenic CO₂ emission. *Science* 11 Nov 2016: Vol. 354, Issue 6313, pp. 747-750 DOI: 10.1126/science.aag2345 [Attachment G].

generating additive emissions affect the survival and recovery of polar bears. A 2010 modeling study found that greenhouse gas mitigation could enable polar bears to persist throughout the century in greater numbers and more areas than under the business-as-usual emissions case, where two-thirds of the world's polar bears could disappear by mid-century.¹⁴³ It found that due to the linear nature of the relationship between sea-ice loss and temperature increases induced by emissions, reducing emissions would make a difference to the persistence of the species because the relationship was not one where a “tipping point” would make emissions reductions irrelevant:

On the basis of projected losses of their essential sea-ice habitats, a United States Geological Survey research team concluded in 2007 that two-thirds of the world's polar bears (*Ursus maritimus*) could disappear by mid-century if business-as-usual greenhouse gas emissions continue. That projection, however, did not consider the possible benefits of greenhouse gas mitigation. A key question is whether temperature increases lead to proportional losses of sea-ice habitat, or whether sea-ice cover crosses a tipping point and irreversibly collapses when temperature reaches a critical threshold. Such a tipping point would mean future greenhouse gas mitigation would confer no conservation benefits to polar bears. Here we show, using a general circulation model, that substantially more sea-ice habitat would be retained if greenhouse gas rise is mitigated. *We also show, with Bayesian network model outcomes, that increased habitat retention under greenhouse gas mitigation means that polar bears could persist throughout the century in greater numbers and more areas than in the business-as-usual case.* Our general circulation model outcomes did not reveal thresholds leading to irreversible loss of ice; instead, a linear relationship between global mean surface air temperature and sea-ice habitat substantiated the hypothesis that sea-ice thermodynamics can overcome albedo feedbacks proposed to cause sea-ice tipping points. Our outcomes indicate that rapid summer ice losses in models and observations represent increased volatility of a thinning sea-ice cover, rather than tipping-point behaviour. *Mitigation-driven Bayesian network outcomes show that previously predicted declines in polar bear distribution and numbers are not unavoidable.*¹⁴⁴

A recent study examining the persistence of polar bear subpopulations based on projected relationships between sea ice decline and fasting period duration under both a “high” and “moderate” emissions scenario found, “with high greenhouse gas emissions, steeply declining reproduction and survival will jeopardize the persistence of all but a few high-Arctic subpopulations by 2100. Moderate emissions mitigation prolongs persistence but is unlikely to

¹⁴³ Amstrup, S., DeWeaver, E., Douglas, D. *et al.* Greenhouse gas mitigation can reduce sea-ice loss and increase polar bear persistence. *Nature* 468, 955–958 (2010).

¹⁴⁴ *Id.* at 955 (internal citations omitted) (emphasis added).

prevent some subpopulation extirpations within this century.”¹⁴⁵ The authors concluded, “Avoiding continued sea-ice decline requires aggressively mitigating greenhouse gas rise, and our results explicitly describe the costs to polar bears of avoiding that mitigation.”¹⁴⁶ Thus, again, the best available science shows that emissions mitigation will preserve more polar bear subpopulations for longer over a larger geographic area. Agency actions that work against mitigation efforts by producing oil or gas in large enough quantities to create market conditions that stimulate additional emissions above even the “business as usual” case must be gauged using the best available scientific information.

In response to public comments, BLM provided an appendix in the final EIS for the Coastal Plain Oil and Gas Leasing program that presents its calculations for the additive CO₂ emissions estimated to result from its actions per year from 2019 through the year 2126, taking into account only emissions from refining and downstream combustion.¹⁴⁷ BLM calculated that due to market effects, overall 4% of the total downstream emissions from the Coastal Plain leasing program would be additional—that is, they would not occur at all in the absence of the agency action—whereas 96% would represent “perfect substitution” of hydrocarbons that would have been combusted anyway in the absence of the agency action.¹⁴⁸ Table R-5 in the final EIS, presents, for a given year, the total tons of CO₂ equivalents under the agency action and no action alternatives; the additive emissions per year can be obtained by subtracting the “no action alternative” emissions from the “proposed action” emissions.

The model that BLM used to draw its conclusions is likely under-estimating the portion of the emissions that is additive rather than substituted by up to an order of magnitude or more. BLM appears to have used the MarketSim model, in a manner that considers the impacts of the additional oil production from the agency action on *domestic* demand only. BLM did not account for the impact on foreign markets. In the draft EIS, BLM stated that the MarketSim model—on which it relied in determining that only 3.9% of the Coastal Plain’s emissions would be additive—only models changes in U.S. demand. BLM stated that “[t]he MarketSim model considers only the US supply and demand for petroleum; thus, the accuracy of the change (increase) in petroleum demand estimated from MarketSim projections is limited, given its scope is just the US market.”¹⁴⁹ Yet “MarketSim models oil as a global market with supply and

¹⁴⁵ Molnár, P.K., Bitz, C.M., Holland, M.M. *et al.* Fasting season length sets temporal limits for global polar bear persistence. *Nat. Clim. Chang.* 10, 732–738 (2020) <https://doi.org/10.1038/s41558-020-0818-9>.

¹⁴⁶ *Id.*

¹⁴⁷ See Coastal Plain Oil and Gas Leasing Program Final Environmental Impact Statement. Appendix R. Market Substitutions and Greenhouse Gas Downstream Emissions, at Table R-5 [Attachment M].

¹⁴⁸ See *id.* at R-3 to R-4.

¹⁴⁹ See U.S. Dep’t of the Interior, Bureau of Land Mgmt., Coastal Plain Oil and Gas Leasing Program Final Environmental Impact Statement at 3-7 (2018) [hereinafter DEIS], citing for its calculations BOEM 2018a, “Market Substitutions and Greenhouse Gas Downstream Emissions

demand specified separately for the U.S. and the rest of the world.”¹⁵⁰ Thus, BLM seemingly used this model in a manner that did not account for effects on foreign markets.

Notably, properly accounting for the impacts on foreign markets could show that approximately 50% of the oil from the Coastal Plain will result in additive emissions, rather than the 3.9% BLM estimated. That is, the actual additive emissions may be more than 10 times what BLM estimated in the final EIS. For example, when the Bureau of Ocean Energy Management (BOEM) utilized MarketSim to model the global market effect it found that for each barrel of U.S. oil left undeveloped, global oil consumption would go down by about half a barrel. In the context of the 2017-2022 Five Year Plan, BOEM estimated that this reduction in foreign oil consumption is highly significant, amounting to roughly 50 percent of BOEM’s estimated oil OCS production in those scenarios. According to BLM, the proposed Arctic Refuge drilling is expected to result in the production of between 1.5 and 10 BBO.¹⁵¹ Removing this oil from the global market could therefore result on a reduction of between .75 and 5 BBO, with corresponding reductions on GHG pollution.

The mechanism for this reduction in foreign oil consumption is as follows: An increase of X BBO of imports to the United States under the No Action Alternative is by definition a decrease of X BBO of supply for the rest of the world, which will in its turn decrease oil consumption, and hence GHG pollution, outside the United States. Oil market analysis conducted by the Stockholm Environment Institute (SEI), and consistent with BOEM’s internal MarketSim parameters, previously confirmed that this reduction in global oil consumption could be around 50 percent of the decrease in rest-of-world supply—a highly significant portion of the carbon accounting for the project.¹⁵²

As summarized by experts at SEI:

Estimates for BLM’s Coastal Plain Project. Bureau of Ocean Energy Management, white paper. Sterling, VA.”

¹⁵⁰ Industrial Economics, Inc. 2015. Consumer Surplus and Energy Substitutes for OCS Oil and Gas Production: The 2015 Revised Market Simulation Model (MarketSim). U.S. Department of the Interior, Bureau of Ocean Energy Management. OCS Study BOEM 2015-054, <https://www.boem.gov/Market-Simulation-Model/>.

¹⁵¹ 1 DEIS at 3-7.

¹⁵² P. Erickson, *U.S. Again Overlooks Top CO2 Impact of Expanding Oil Supply . . . But That Might Change*, Stockholm Environment Institute (Apr. 30, 2016); P. Erickson & M. Lazarus, *Would constraining US fossil fuel production affect global CO2 emissions? A case study of US leasing policy*, CLIMATIC CHANGE (2018); P. Erickson & M. Lazarus, *How limiting oil production could help California meet its climate goals*, Stockholm Environment Institute (2018).

The oil market is also highly global, with oil readily traded among countries, and substantial infrastructure in place to do so. The U.S. both imports and exports oil, and world and domestic oil prices very closely track each other (U.S. EIA 2016).

For this reason, we expect that changes in U.S. oil production would affect an integrated global oil market, an assumption also made by many other analysts that have looked at changes in U.S. oil supply (Bordoff and Houser 2015; Rajagopal and Plevin 2013; Allaire and Brown 2012; Metcalf 2007; IEc 2012). Though in the past the oil market could be strongly influenced by cartel behavior among a small number of producers, many analysts now see the market as more likely to behave competitively (The Economist 2016; U.S. EIA 2016), meaning that increases or decreases in supply do translate into shifts in prices and, in turn, consumption.¹⁵³

Thus, in addition to the annual breakdown of additive emissions that BLM calculated in Appendix R of the final EIS, FWS should consider the available information indicating increased foreign consumption induced by leasing on the Coastal Plain could increase additive emissions by tenfold. A reasonable approach to approximating this would be to multiply the difference between the annual CO₂ equivalent tons under the proposed action and the no action alternative by a factor of at least ten.

The question of how much *extra* sea ice will be lost or *how much sooner* a given level of sea ice loss will occur due to the agency action is of obvious importance to assessing the impacts of the action on polar bears and critical habitat. The scientific information to gauge this impact exists. But, FWS failed to even assess whether the information exists.

In sum, in light of the 2016 Notz and Stroeve paper and the calculations BLM provided in Appendix R of the final EIS, FWS' conclusory reliance on the 2008 Memorandum to avoid assessing the effects of the action is arbitrary and capricious, violates the requirement to use the best available scientific and commercial information, and violates the requirement to consider the effects of the agency action. By BLM's own calculations, because the magnitude of the oil and gas development is large enough to affect demand, the Coastal Plain leasing program will result in millions of *additive* tons of CO₂ equivalents being emitted between now and mid-century that otherwise would not be emitted. Since these additional emissions can be translated into additional sea-ice losses, and polar bear survival and recovery depends on delaying those sea-ice losses, FWS cannot simply ignore the effect of these emissions on the species and its habitat without any analysis at all.


Conclusion

¹⁵³ P. Erickson & M. Lazarus, *How would phasing out US federal leases for fossil fuel extraction affect CO₂ emissions and 2°C goals?*, *supra* note 152 at 23.

Unless Interior takes immediate steps to initiate and complete section 7 consultation that considers the full range of direct, indirect and cumulative impacts to polar bears and critical habitat, using the best scientific and commercial data available, we will be forced to file suit 60 days from the date of this letter. Please do not hesitate to contact me at (907) 433-2011 or bpsarianos@trustees.org with any questions or to notify the Petitioners of the agency's intent to comply with the ESA by reinitiating and completing consultation.

Sincerely,

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List of Attachments:

Attachment	Document
A	Ryan Wilson, & George Durner. Seismic Survey Design and Effects on Maternal Polar Bear Dens. (2020).
B	Tom Smith, Steven Amstrup, B. J. Kirschhoffer, & Geoffrey York. Efficacy of Aerial Forward-looking Infrared Surveys for Detecting Polar Bear Maternal Dens. (2020).
C	Ryan Wilson, Joespeph Liebezeit, & Wendy Loya. Accounting for Uncertainty in Oil and Gas Development Impacts to Wildlife in Alaska. (2013).
D	Holly Copeland, Kevin Doherty, David Naugle, Amy Pocerwicz, & Joseph Kiesecker. Mapping Oil and Gas Development Potential in the US Intermountain West and Estimating Impacts to Species. (2009).
E	Bureau of Land Management. FEIS Map 3-6.
F	U.S. Fish and Wildlife Service. Memorandum Regarding Expectations for Consultation on Actions that Would Emit Greenhouse Gases. (May 14, 2008).
G	Dirk Notz, & Julienne Stroeve. Observed Arctic Sea-Ice Loss Directly Follows Anthropogenic CO ₂ Emission. (2016)
H	A. Pagano, G. Durner, K. Rode, T. Atwood, S. N. Atkinson, E. Peacock, D. Costa, M. Owen, & T. Williams. High-Energy, high-Fat Lifestyle Challenges an Arctic apex Predator, the Polar Bear. (2018).
I	U.S. Fish and Wildlife Service. Memorandum Regarding Comments on the Preliminary Final Environmental Impact Statement (EIS) for the Coastal Plain Oil and Gas Leasing Program for the Arctic National Wildlife Refuge, Alaska. (Aug. 9, 2019).
J	Bureau of Land Management and Cooperating Agency Comments on the Administrative Draft Final EIS.
K	U.S. Fish and Wildlife Service. Memorandum Regarding Comments on the 2018 Draft Environmental Impact Statement (DEIS) for the Coastal Plain Oil and Gas Leasing Program for the Arctic National Wildlife Refuge, Alaska. (Mar. 13, 2019).
L	U.S. Fish and Wildlife Service. Memorandum Regarding Recommendations for No Leasing Areas to Create an 800,000 Acre Alternative in the 2018 Draft Environmental Impact Statement (DEIS) for the Coastal Plain Oil and Gas Leasing Program for the Arctic National Wildlife Refuge, Alaska. (2019)
M	Coastal Plain Oil and Gas Leasing Program Final Environmental Impact Statement. Appendix R. Market Substitutions and Greenhouse Gas Downstream Emissions.