

T 310.736.1000 615 Broadway Street
F 310.736.3369 Los Angeles, CA 90015-1011
www.lls.edu

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Katherine A. Trisolini
Professor of Law
213.736.8368
Katherine.Trisolini@lls.edu

March 13, 2019

United States Department of the Interior Bureau of Land Management
Coastal Plain Oil and Gas Leasing Program EIS
222 West 7th Avenue, Stop #13
Anchorage, Alaska 99513 -7504

RE: Draft EIS for the Coastal Plain Oil and Gas Leasing Program.
To Whom It May Concern:

I am an attorney and a member of the Bar of California, admitted to practice in the courts of California and the Ninth Circuit Court of Appeals and a Professor of Law at Loyola Law School. As a practitioner and Professor of environmental law, I have submitted comments on numerous environmental impact documents since I graduated from Stanford Law School in 1999. I have taught courses in environmental law at UCLA and Loyola Law School, Los Angeles. In addition to extensive litigation and administrative experience in environmental law, I have taught, lectured, and written about the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), and climate change. I write in my capacity as an individual with expertise in environmental law, not as a representative of any of the abovementioned institutions.

Based on my experience and review of the Draft Environmental Impact Statement (EIS), the EIS suffers from major defects that warrant a wholesale revision of the document. Because it fails to address important categories of impacts and fails to include a reasonable range of alternatives the document should be rewritten and a new version made available for public comments in draft form. Simply responding to these lacunae with formal comments in a Final EIS will fail to give the public adequate time to consider appropriate alternatives and impacts not addressed in the current EIS.

As you know, the National Environmental Policy Act (NEPA) requires the agency to take a "hard look" at environmental impacts before approving a major federal action such as the Coastal Plain Oil and Gas Leasing Program. NEPA requires federal agencies to take a "hard look" at the environmental consequences of their actions. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989). As written, the draft EIS fails to provide a hard look for several reasons. First, the EIS employs a truncated range of alternatives that is too narrow to fully inform decisionmakers and the public. It also fails to include feasible alternatives that meet the purpose of the action. Feasible alternatives that could meet the purpose of the purpose of the action while reducing environmental impacts were not included in the analysis. Without a full analysis of feasible, less damaging alternatives, the decisionmakers and the public will not be fully

T 310.1000 919 Agency Street
F 213.380.3766 Los Angeles, CA 90015-1111
www.lls.edu

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informed of the environmental impacts of the proposal and decisionmakers will not be able to exercise their discretion to develop the program to reduce environmental impacts where possible.

A. Excessively Narrow Range of Alternatives Considered in The Draft EIS

The CEQ regulations require an EIS to "rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives that were eliminated from detailed study, briefly discuss the reasons for their having been eliminated" (40 CFR 1502.14(a); see also NEPA Sec. 102(2)(C)(iii)). The CEQ regulations also direct that an EIS "...include reasonable alternatives not within the jurisdiction of the lead agency" (40 CFR 1502.14(c)).

Although the discussion of alternatives is considered to be the heart of the NEPA process, the Bureau has failed to include an alternative that minimizes impacts.

Congress directed the agency to develop a leasing program with a minimum of 400,000 acres area-wide offered in each lease sale and a *maximum* of 2000 surface acres to be covered by production and support facilities. [TITLE II SEC. 20001 (C) 1 (B)i (The Secretary shall offer for lease under the oil and gas program under this section—(1) not fewer than 400,000 acres area-wide in each lease sale"); C1B ii (3) ("SURFACE DEVELOPMENT.—In administering this section, the Secretary shall authorize up to 2,000 surface acres of Federal land on the Coastal Plain to be covered by production and support facilities (including airstrips and any area covered by gravel berms or piers for support of pipelines) during the term of the leases under the oil and gas program under this section.")] Instead of considering alternatives with a lower total acreage offered in lease sales, the agency proposes to offer much more land than necessary, significantly exceeding the minimum directed by Congress. Meanwhile, the EIS reviews only alternatives that use (and in fact exceed) the maximum surface acreage coverage.

1. The Bureau fails to consider an alternative that reduces impacts by minimizing total area offered for sale.

As the DEIS explains, the no action alternative was included for comparison purposes only because it would not meet Congress' mandate to develop a leasing program, leaving on alternatives B, C, and D as possible options. Yet among these three the agency does not include an option that reduces impacts by offering the minimum area of this pristine land for lease consistent with PL 115-97, a particularly important approach in this case because the no action alternative cannot be selected.

Alternatives B and C both offer the entire project area for leasing, a total of 1,563,500 acres, vastly exceeding the minimum land area that Congress directed the agency to include. While Alternative D reduces the total area offered, it still

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significantly exceeds the minimum acreage required by Congress, offering 1,037,200 acres for lease. At most, Congress required the agency to open 800,000 acres. Given that the leasing program is designed to operate in two phases, areas not leased in the first offering could be included in the 400,000 minimum for the second stage, thus making the mandated area even smaller. By examining and potentially adopting a program that offers no more acreage than necessary, the Bureau could drastically reduce environmental impacts while meeting the purpose of the law. Because the DEIS fails to include such an option, it does not provide a "reasonable range of alternatives" as required by NEPA.

2. The Surface Area and Gravel Mining Assumptions

Instead of considering an alternative that minimizes total surface area disturbance, the EIS includes only alternatives that include the maximum area permitted by Congress to be disturbed. [DEIS 3-26 ("All the action alternatives assume a surface disturbance area of approximately 2,000 acres from future oil and gas exploration, development and production, not including the gravel pits.") The EIS makes that outrageous assumption that Congress' direction to develop an oil and gas leasing program that disturbs a maximum of 2000 surface acres somehow also somehow incorporates authorization to disturb another 300 or more acres with gravel mining. Because the Bureau refuses to include these activities within the 2000 surface acre limit and describes the 300 acres as an "estimate," the DEIS appears to presume that Congress has authorized an unlimited number of acres to be disturbed by gravel mining within this pristine area. (DEIS 3-26). Nothing in the Act provides for this additional surface disturbance. As acknowledged by the DEIS, gravel pits remaining after extraction would typically not be completely backfilled, thus leading to permanent changes on physiography.

The unsupported assumption that the Act authorized gravel mining in ANWR significantly expands impacts beyond those that would be anticipated with 2000 acres of surface disturbance authorized by Congress. Moreover, the agency does not offer any alternatives that without the additional surface disturbance from gravel mining. (DEIS 3-26 ["All the action alternatives would include potential development of a gravel mine or mines, . . . The surface of the gravel mines would total approximately 300 acres for each action alternative (not included in the 2,000-acre limit on surface disturbance).])

The Bureau's assumptions regarding gravel mining contradict Congress' limitation on surface disturbance within the pristine area of ANWR. The DEIS attempts to characterize the gravel operations as somehow not part of the production and support facilities that "count" towards the 2000 acre maximum surface coverage. However, this

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effort seems particularly nonsensical in light of Congress' explicit inclusion of airstrips and pipeline support structures.

Even if the Act could be interpreted somehow to permit alternatives that include 300 acres of surface disturbance from gravel mining beyond Congress' 2000 acre limit, the Bureau has a duty under NEPA to consider an alternative that does not add additional acres of gravel mining operations within the project area. The Bureau should include an alternative that either includes the mining within the area of surface area maximum or better yet, one that does not include gravel mining within the project area at all.

Finally, assuming these operations are permissible, the DEIS does not meaningfully analyze the impacts from gravel mining despite specific projections of both the location and size of mining operations. These impacts are in no way speculative and hence warrant thorough analysis. Gravel mining will significantly exacerbate adverse environmental impacts because it is a noisy, dusty activity that will disturb wildlife, plant habitats, water quality, and air quality, among other things.

The Bureau also attempts to expand the area of potential surface disturbance by excluding ice roads and other ice structures and limiting the assessment of total surface coverage temporally. However, neither of these approaches are warranted. The temporal limitation that "counts" surface coverage only "at a given time" [DEIS 1-6] based on a misreading of the statute. Congress said during the terms of "the leases," does not support considering each lease singularly and counting each one separately. Moreover, the section refers to leases "under the program," further demonstrating that Congress was referring to coverage under the program as a whole.

Finally, the exclusion of ice roads and structures on the basis that these are temporary and without permanent environmental impact is not supported by any evidence. In fact, explanation of impacts from ice pad and ice road construction elsewhere in the document seems to contradict this claim.

3. ANILCA

The approach to ground coverage and total acreage offered for sale creates alternatives that favor oil and gas production at the expense of other values. Yet ANILCA requires the agency to balance other uses. Indeed its purpose and policy reflect the need to preserve ecological values. Congress enacted the statute:

In order to preserve for the benefit, use, education, and inspiration of present and future generations certain lands and waters in the State of Alaska that contain nationally significant natural, scenic, historic, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values...

Congress further stated that:

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It is the intent of Congress in this Act to preserve unrivaled scenic and geological values associated with natural landscapes; to provide for the maintenance of sound populations of, and habitat for, wildlife species of inestimable value to the citizens of Alaska and the Nation, including those species dependent on vast relatively undeveloped areas; to preserve in their natural state extensive unaltered arctic tundra, boreal forest, and coastal rainforest ecosystems; to protect the resources related to subsistence needs; to protect and preserve historic and archeological sites, rivers, and lands, and to preserve wilderness resource values and related recreational opportunities including but not limited to hiking, canoeing, fishing, and sport hunting, within large arctic and subarctic wildlands and on freeflowing rivers; and to maintain opportunities for scientific research and undisturbed ecosystems.

It is further the intent and purpose of this Act consistent with management of fish and wildlife in accordance with recognized scientific principles and the purposes for which each conservation system unit is established, designated, or expanded by or pursuant to this Act, to provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so. (ANILCA § 3101)

Because BLM's responsibility include preservation of these ecological and subsistence values, it must at least examine an alternative that minimizes the project's impact, particularly given that thus far it has come nowhere near to providing an option near the lowest level of spatial disturbance permitted by Congress.

B. Inadequate Analysis of Impacts

The DEIS also fails to fully evaluate environmental impacts of the alternatives that it does discuss.

1. Impacts Are Not Considered in Sufficient Detail to Inform Decisionmakers

Overall, the DEIS provides only cursory analysis of the most general kind for most of the impacts it discusses, describing in broad terms the categories of impacts that could occur without meaningfully characterizing the extent of impacts under the various alternatives. While the programmatic nature of the DEIS makes a certain level of generality understandable for some impacts, the DEIS must provide specific analysis where possible.

2. The DEIS Should Provide More Thorough Analysis of Permafrost Melt, Particularly Regarding Mercury Release

Because the entire region in which the lease occur sits on permafrost, it is essential that the EIS fully address the implications of scientific research showing that melting permafrost can be anticipated to release substantial amounts of mercury into the environment.

T 213.480.6796 | 5th Avenue North
 F 213.480.6796 | Los Angeles, CA 90015-1001
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The EIS mentions in passing (a single sentences sprinkled into a few places in the EIS) that melting permafrost can release not only carbon dioxide and methane but also persistent organic pollutants and mercury. (See, e.g., single sentence stating only "Lastly, the degradation of permafrost and multi-year sea ice could release persistent organic contaminants and mercury to aquatic ecosystems and wetlands (Schiedek et al. 2007)"). Yet mercury release from melting permafrost stands to be a highly significant impact in the region that the project will cumulatively exacerbate.

Recent research shows Arctic permafrost contains much higher levels of mercury than previously understood, and indeed the active layer of arctic permafrost contains the largest reservoir of mercury on the planet, and that "the active layer and permafrost together contain nearly twice as much Hg as all other soils, the ocean and atmosphere combined." [Schuster, et al. (2018) Permafrost stores a globally significant amount of mercury, *Geophysical Research Letters* 45, 1463-71.

<https://doi.org/10.1002/2017GL075571>. Moreover, rapid permafrost thaw can enhance methylmercury production, resulting in bioaccumulation and harm to humans and wildlife. [Yang, et al., Warming increases methylmercury production in Arctic Soil, *Environmental Pollution* 214 (2016) 504-509, <https://www.osti.gov/pages/servlets/purl/1319169>.]

As the DEIS acknowledges, roadways, dust and other forms of surface disturbance both from exploration and operations will increase the creation of thermokarsts. Thermokarsts lead to rapid decline in permafrost stability and will contribute to breakdown of permafrost and hence release of mercury. Gravel mining operations will similar damage permafrost.

Recent research shows that oil production infrastructures contributes to thermokarst development and damage to permafrost more than initially anticipated. [See, Reynolds, et al., Cumulative Geocological effects of 62 years of infrastructure and climate change in ice-rich permafrost landscapes, Prudhoe Bay Oilfield, Alaska, *Global Change Biology* (2014) 20, 1211-1224, <https://onlinelibrary.wiley.com/doi/full/10.1111/gcb.12500>.] The cumulative effect of this with global warming will be significant and is not sufficiently analyzed in the DEIS. The Bureau should analyze the research discussed in this section and other similar research to incorporate these critical impacts into the decisionmaking process. (The sources cited here are readily available on the internet and should be considered to be incorporated by reference into this comment letter.)

2. Lease Stipulations and Provisions are too Uncertain and Standardless to Predict Impacts and Cannot Meaningfully Serve as Mitigation

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With this action, BLM is deciding upon the terms and conditions for leasing. The decision regarding which terms and conditions to apply and their stringency form one of the most important aspects of the proposal. Along with decisions about which areas will be leased, these terms and conditions will determine the extent of impacts that the program will have on the environment. Indeed, the Bureau's cover letter for the EIS recognized the terms and conditions and the areas to be leased as the decisions to be made: "The decisions to be made as part of this Leasing EIS concern which areas of the Coastal Plain would be offered for oil and gas leasing and the terms and conditions to be applied to such leases and subsequent authorizations for oil and gas activities." (EIS Cover Letter, p. 1)

The Letter describes characterizes the lease stipulations and required operating procedures as features of each alternative "designed to mitigate impacts on natural resources and their uses." [Id.] The DEIS proposed action includes broad exemption and waiver language that applies to stipulations and ROPs under all of alternative, noting that a BLM officer provide waivers, exemptions, and modifications for all conditions, leaving excessive discretion to individual staffers to apply or not apply stipulations and ROPs. The DEIS suggests that this waivers and exemptions are not concerning because the operations will still have to meet the objectives for which the stipulations and ROPs were developed [2-3]. However, many of the objectives themselves are stated in such general terms that they provide no guidance whatsoever. For example, the objective of lease stipulation 1 includes the goal to "protect water quality" and "minimize the disruption of natural flow." [Table 2-2]

Similarly, ROP 7 has the important, but very general objective of ensuring that permitted activities "do not create human health risks by contaminating subsistence foods." [Id.] The related standard requires lessee/operators/contractors that propose permanent oil and gas development to develop a monitoring program to examine impacts to subsistence foods from operations and allows BLM officers to change operator's processes if monitoring studies shows contamination from operations. This important requirement is subject not only to the general standardless waiver and exemption provisions for all ROPs but also to a standardless waiver within the ROP 7 itself which allows the BLM officer to "terminate or suspend studies if results warrant."

This example of a specific waiver provision from ROP 7 is mirrored throughout the alternatives discussion. While the DEIS lists Required Operated Procedures (ROPs) with each alternative, closer examination demonstrates that these ROPs in fact are in no way "required." While the Bureau may need some flexibility to address the unanticipated impacts of future proposals for site-specific lease proposals, the ROPs as written include so many exceptions and potential waivers as to preclude meaningful analysis of the leasing program's impacts. Yet the DEIS states that lease stipulations and ROPs

T 213 736 1000 | 610 Albany Street
F 213 480 3769 | Los Angeles, CA 90015-0101
www.lls.edu

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"provide the basis for analyzing potential impacts of the alternatives in this Leasing EIS." [2-3].

The Bureau must provide minimum requirements now that cannot be waived and should describe specific standards for the exercise of future discretion to change lease requirements. Otherwise, many of these conditions could be waived for individual leases, creating cumulative impacts that were not anticipated in this DEIS. These standardless and uncertain options leave too much to guesswork.

Because the proposal lacks sufficiently clear standards for these waivers and exemptions, the impacts of each alternative cannot be meaningfully be analyzed in the EIS.

For the foregoing reasons, the EIS should be rewritten to include further alternatives that meet the purpose and need for the project and to adequately analyze impacts.

Thank you for the opportunity to comment on the NEPA analysis.

Sincerely yours,



Katherine Trisolini, M.A., J.D.
Professor, Loyola Law School
Katherine.trisolini@lls.edu
213-736-8368

P.S. Note that the comment link on the BLM website was prematurely closed before the posted time of 9:59 pm Alaska Standard Time. Consequently, I am sending these comments via fax to your office. Please add me to the list of interested parties to receive information about the program.