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Sent: Thursday, March 14, 2019 8:52 AM
To: coastalplainAR; Sean Cottle
Subject: Fwd: [EXTERNAL] Comments on Coastal PLain O&G DEIS
Attachments: PamelaAMillerCommentsDEIS3-18-2019-Part2.pdf;
PhotosPamMillerDEISComments3-13-2019 Part1.pdf

Follow Up Flag: Follow up
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From: **Pam A. Miller** <pammillerarctic@gmail.com>
Date: Wed, Mar 13, 2019 at 10:02 PM
Subject: [EXTERNAL] Comments on Coastal PLain O&G DEIS
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Please find my comments

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March 13, 2019

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RE: Comments on *Notice of Availability of the Draft Environmental Impact Statement for the Coastal Plain Oil and Gas Leasing Program and Announcement of Public Subsistence-Related Hearings* (83 Fed. Reg. 67337-67338 Dec 28, 2018) – for the Arctic National Wildlife Refuge

Dear Ms. Hayes:

As I said at scoping, we have five minutes to talk about forever. That's how it feels this evening as I finish up what I can get done in the time I have. Not even until the true end of our day in Alaska.

Recently, I described a walk on a gravel bar that I took with Dr. David Klein, a caribou ecologist, who described the interconnected web of willow, ptarmigan, redpoll nest, caribou and formation of the very river bar.¹ The draft EIS fails to capture the reality of the intact wholeness that is the protected Arctic National Wildlife Refuge today. It also fails to describe the history and values of this protected area which Alaskans and so many others have fought for since its establishment over 58 years ago.²

As the Coastal Plain Oil and Gas Program for the Refuge is considered, this action must be viewed from the context that we are on the precipice of a fundamental transformation of the wild, intact landscape and sacred cultural landscape is on the precipice. The only wise choice is Alternative A, and it needs to be fixed to be a true no action alternative which fully presents the scientific, ecological, and complex environment which exists today in the Arctic National Wildlife Refuge. Because the draft EIS is so flawed that I recommend that you go back and start anew with a revised draft which in turn would be subject to full public hearings.

Bias

The draft EIS is biased and fraught with unsupported generalities from the cover through the 2 volumes.

The Cover.

The cover fails to state this area is within the Arctic National Wildlife Refuge. This is not a minor oversight but use of the term "Coastal Plain" like "1002 area" or "ANWR" to obscure public

¹ <https://www.arcticaudubon.org/s/2019-1-Redpoll-for-Web-2x8r.pdf>

² https://www.fws.gov/uploadedFiles/Region_7/NWRS/Zone_1/Arctic/PDF/ArcticNWR50thSymposiumTransactions.pdf

understanding of the choices we are making about this unique ecosystem protected for more than 50 years as “Refuge.” The transformation of “Coastal Plain” as a result of the proposed oil and gas leasing program will fundamentally alter the Refuge – a place of shelter, protection, or safety – for wildlife and their essential habitats. The cover obfuscates that the “Coastal Plain” area is within the Arctic National Wildlife Refuge still today and is subject to the laws, policies, and purposes as a refuge under the National Wildlife Refuge Administration Act and Conservation System Unit administered by the U.S. Fish and Wildlife Service. The Tax bill did not erase the Arctic National Wildlife Refuge. It does threaten the integrity of its wholeness as the most diverse array of ecosystems in any protected area in the circumpolar Arctic. Its overarching value from its beginning over 50 years a wild corner of the world is at risk. HOMELANDS

On the cover, a drab photo on a cloudy day looking north towards the foggy coastline continues the Interior Department’ practice of biased portrayals of the Arctic National Wildlife Refuge’s Coastal Plain Area since the blah tan cover of 1987 Final EIS for *Arctic National Wildlife Refuge, Alaska, Coastal Plain Resource Assessment* (although it at least included the full name for the Refuge). Why not show the plants and animals, people in subsistence and recreational activities, clear rushing water, the coast, the variety of habitats found within the refuge?

The cover lists the cooperating agencies, including U.S. Fish & Wildlife Service (FWS). But this exaggerates the role it apparently has been allowed to play by the Trump Interior Department. It obscures the fact that FWS was not on the “BLM interagency planning team” and therefore formally stripped by the Department of the Interior of considerable role and responsibility in the preparation of the DEIS (see Appendix C, Collaboration and Coordination). This is despite the fact that the DEIS p. ES-2 acknowledges, “The US Fish and Wildlife Service (USFWS) is the predominant land manager in the program area.”

So why wasn’t FWS the lead agency? Why wasn’t the Refuge Manager of Arctic Refuge co-manager on the Inter-agency team? How could BLM leave out FWS given they are the land manager for the entire Arctic National Wildlife Refuge, including its Coastal Plain? Why did the Department of Interior cut out of the interagency team the FWS’s Refuge staff managers and experts ranging from botanist (vegetation, rare plants, habitats, wetlands, geobotany, terrain, long-term impacts of seismic exploration), wildlife biologists (migratory birds, Porcupine Caribou Herd), hydrologist, experts in the Arctic Refuge’s special designations including Wild and Scenic Rivers, Wilderness management, wilderness values, recreation and public use, hydrology and subsistence managers. Furthermore, the Department of the Interior cut out a wide range of other FWS divisions have specific responsibilities and expertise for Endangered Species, Marine Mammals management of polar bear and walrus, implementation of international treaty obligations for wildlife, knowledge and expertise on the Arctic Refuge’s fisheries and aquatic resources, water resources (quantity, quality), land ownership and uses, Native lands, cultural resources, subsistence management, migratory birds, and climate change.

Instead, the BLM interagency team included people from other agencies (ADNR, ADF&G, and BOEM) as report lead authors and reviewers (Appendix C).

This is more than a bias, it robbed the public of the benefit of FWS’s legal responsibilities and considerable expertise and knowledge of the existing environment, as well as its involvement in evaluating the potential impacts of North Slope oil and gas development- a role FWS routinely plays due to its responsibilities under the Fish and Wildlife Coordination Act.

Furthermore, it is strange to see that USGS is not on the interagency team or a cooperating agency given their expertise as the geological science agency (as well as having a wide range of ecological scientists). I can't help but think, what is there to hide? As USGS's chief It is an ironic twist compared with the 1980's when Secretary of the Interior James Watt installed USGS as the lead agency for the by , instead of Fish and Wildlife Service who was restored into its proper role as lead agency after legal action (CITE CASE AND 50th anniversary symposium proceedings).

The cover includes the text, "Estimated Lead Agency Total Costs Associated with Developing and Producing this EIS \$1,200,000."

By putting \$ costs on the cover, this frames the issue in the context of money, not the priceless values of what exists today in the Refuge—the wilderness, fish and wildlife and their intact habitats, clean natural flowing water, the "sacred place where life begins," lands where ancient cultures continue today to depend on the migratory animals for sustenance, health, and spiritual connection and renewal – and which will be changed forever by the oil and gas leasing program of exploration, development, production, transportation.

Has there ever been an *environmental* impact statement with its "cost" provided on the cover? This biased information should be removed. What is the purpose of giving this information here? If it were to be included inside the document, where is the information documenting how those costs were incurred? How much were consultant costs, and from what exact appropriated budget? Was this the costs only for BLM "lead" agency staff and its consultant? Did it cost more to use an outside consultant than BLM agency personnel? Were its costs higher because of the rushed time frame given that the lease sale time frame is 2024, not this year which has been the Interior Department's schedule? What was robbed from Peter to pay Paul to accomplish this work within the Department of the Interior? What other federal costs were incurred by other agencies? What other work did not get done by the BLM, US Fish and Wildlife Service, and EPA because of this rushed process. What work did FWS propose that was necessary as baseline prior to carrying out the impact assessment?

What irony that BLM published the \$ costs on the cover when it failed to spend any funds to distribute hard copies (or even CD copies) of the DEIS to the public, nor to even produce coherent summaries or newsletters with maps of its alternatives or findings or provide such simple products typical during NEPA processes on the internet or mail to local box holders.

The inside cover.

The photo caption fails to mention it shows lands within the Arctic National Wildlife Refuge. The caption for this photo states it is "near the Sadlerochit River" and mentions an oil seep, but fails to address the unique ecological values associated with this river.

For example, Sadlerochit Springs, the area where Itkilyariak Creek Spring flows into the Sadlerochit River area supports a unique endemic populations of dwarf Dolly Varden, supports wintering population of American dipper, a song bird. The photo also shows riparian willows along his river that provide nesting habitat for songbirds, shelter and feed ptarmigan, and provide browse and cover for muskox populations which centered around this river in past decades and are still occasionally seen. Sadlerochit Springs has been nominated as an Natural Ecological Landscape.³ The Sadlerochit Spring Special Area

³ Bliss and Gustufson, 1981.

was a designated in the regulations governing the 1002 exploration program⁴ and was completely off limits during the 2D seismic program in 1985-85.

Crux of the Problem: The Tax Act provision is admittedly very strange due to the way Sen. Murkowski tucked it in as a rider to a massive budget bill without a single hearing on the legislation. There is much to interpret based on very few words. What is clear, however, is that the Coastal Plain is still “Refuge” lands, not mere oil lands like the State of Alaska has on the North Slope. And although the Tax Act says the oil and gas program is to be managed “similar to” leasing in NPRA, this does not say BLM can ignore the original Refuge purposes and FWS management authorities and responsibilities under a wide range of laws.

BLM puts the cart before the horse in its implementation of the Tax Act provision for an oil and gas program in the Refuge Coastal Plain. By rushing ahead to hold lease sales within a year after its launch of the public process for political reasons, BLM has separated “Leasing” and its cascading oil and gas effects from a meaningful land use planning process upon which to make its decisions for the fate of a major new region, the sensitive Refuge. The fundamental decision about which lands to make available for leasing and more importantly, which lands to make unavailable for leasing and no surface occupancy of oil industry activities, infrastructure, or transportation activities would be foreclosed without having considered adequate environmental information, sufficient data on impact sources and stressors, and a transparent and robust public process.

By contrast, the DEIS describes the goals of this process as merely choosing which stipulations or standards to attach to leases, not which areas are appropriate to lease.⁵

BLM’s process for the Refuge Coastal Plain in fact is not being carried out at all “similar to NPRA” wherein Integrated Activity Plans carried out through a public NEPA EIS process are a decision step of what lands should be leased and what protective measures should be attached to leases as stipulations, and other ROPs and standards, based on not only oil and gas potential but also the values of the lands. Furthermore, BLM’s current process ignores the conservation standards and requirements of the Arctic Refuge CCP (FWS 2015), the requirements of the National Wildlife Refuge Administration Act, and other laws.

So, this DEIS is fundamentally flawed because it has separated out the “lease sale” piece from a planning process with sufficient information and public participation to allow sufficient review of environmental conditions upon which to make a reasoned decision. BLM has focused attention on the goal of the lease sale, and not gathering of information and conducting sufficient analysis necessary to address the requirements for entire program called for in the Tax Act, “The Secretary shall establish and administer a competitive oil and gas program [emphasis added] for the leasing, development, production, and transportation of oil and gas in and from the Coastal Plain.” Congress did not simply say issue leases without having a framework established based on real environmental information, design of modern

⁴ 50 C.F.R. 37, Sec. 37.32 Special areas. (g) No exploratory activities shall be conducted by any permittee at any time within $\frac{1}{2}$ mile of the source of the Sadlerochit Spring or within $\frac{1}{4}$ mile on either side of Sadlerochit Spring Creek for a distance of 5 miles downstream from its source.

⁵ I support Alt A because no lease sales are appropriate in the Arctic Refuge, but the provisions of the Tax Act set requirements for 2 lease sales offering a minimum 400,000 acres each within the 10 year time frame.

The comprehensive hard look must be done now, as BLM states “a lease does grant the lessee certain rights to drill for and extract oil and gas subject to further environmental review and reasonable regulation, including applicable laws, terms, conditions, and stipulations of the lease.”(p. ES-4)

Scoping Issues

The list of scoping issues in the executive summary and anywhere in the DEIS is very incomplete, listing only fish and wildlife, including the Porcupine caribou herd, special status species [note agency jargon not “Endangered Species” etc.] including polar bear, analysis of oil and gas activities, and subsistence use and traditional ways of life. BLM fails to identify Endangered Species as a scoping issue here generally and hides in terminology “special status species” that polar bears are listed as threatened species under the Endangered Species Act, and that the Refuge Coastal Plain provides the most important land denning habitat in the US, and also that extensive Denning and Barrier Island Critical Habitat is present within the Coastal Plain, and Sea Ice Critical Habitat in the adjacent Beaufort Sea.⁶

The Scoping Report, not provided in the DEIS, is superficial, hastily done and failed to identify Wilderness, wilderness values, and recommended Wilderness areas as important scoping issues, among others. For issues that it does identify, such as

Executive Summary

This section is so short that it is not a meaningful portrayal of the proposed action, the decisions BLM will be making about the Refuge Coastal Plain oil and gas program per the Tax Act, the existing environmental conditions and purposes of the Arctic National Wildlife Refuge and its Coastal Plain, and the major, irretrievable, irreversible, and cumulative effects from oil and gas leasing, exploration (including all seismic), development, production and transportation. (DEIS p. ES-1 to ES-5) The Executive Summary merely says, “under this alternative, current management actions would be maintained, and resource trends are expected to continue, as described in the Arctic National Wildlife Refuge Revised Comprehensive Conservation Plan (CCP) (USFWS 2015a).”

Yet the public reader isn’t provided the most basic information about the Arctic Refuge, its setting, its management goals and actions, and its purpose since established as a protected area over 50 years ago “of preserving unique wildlife, wilderness and recreational values,” and other purposes subsequently added by ANILCA “to conserve to fish and wildlife populations and habitats in their natural diversity including, but not limited to, the Porcupine caribou herd (including participation in coordinated ecological studies and management of this herd and the Western Arctic herd), polar bears, grizzly bears, muskox, Dall sheep, wolves, wolverines, snow geese, peregrine falcons and Arctic char and grayling;” to fulfill international treaty obligations of the US with respect to fish, wildlife, and their habitats; to provide... the opportunity for continued subsistence uses by local residents; and to ensure water quality and necessary water quantity for fish and wildlife populations and their habitats.

Although BLM said, “the oil and gas leasing program must consider the Arctic Refuge purposes set out in Section 303(2)(B) of ANILCA, as amended by Section 20001 of PL 115-97,” (DEIS p.1.1), the it should clearly state that it also must consider the purposes “of preserving unique wildlife, wilderness and recreational values,” established by PLO 2214 when the original refuge was established in 1960 and remain in effect today.

⁶<https://www.fws.gov/alaska/fisheries/mmm/polarbear/pdf/75%20FR%2076086%20final%20Rule%20Designating%20CH.pdf>; https://www.fws.gov/alaska/fisheries/mmm/polarbear/final_designation_maps/99-0206.pdf.

The Tax Bill provisions, the long-time and still in effect Refuge purposes, and the magnitude of fundamental changes that may be unleashed by the Coastal Plain oil and gas program from this EIS process – this all makes my head hurt. And then to try to decipher a very unconventional, vague, and disorganized DEIS (in order to stay within Interior Secretarial decreed page limits, so relevant tables, huge sections of text were shunted to Appendices). On top of this, the DEIS is unresponsive to so much public comment during the scoping phase about their concerns for the existing Refuge purposes and values it supports and missing data on anticipated oil and gas geographic scope, activities and infrastructure.

This all adds up to discordance of fast paced industrialization in this indigenous homeland, birthplace and nursery, sacred space, transboundary beacon of new life for birds, caribou, polar bears, fish, and whales along migratory journeys. Yet the job of the Federal agencies to provide a transparent process for the public's questions to be answered, to take in information about the profound change that is contemplated and for the public to clearly evaluate the tradeoffs, the range of choices, the gaps in necessary information. The Executive summary needs to describe the existing Arctic Refuge purposes, the oil and gas program activities and infrastructure, and a reasonable range of alternatives.

Hypothetical Development Scenario

Is the “hypothetical baseline scenario” different from “Hypothetical development scenario”? (p. ES-3)

BLM said that the baseline scenario would not address impacts from development of 24,400 of KIC/ASRC lands “covered by PL 115-97 but outside the BLM’s oil and gas leasing authority.” (Table ES-I, p. ES-2). This means that for these ANCSA corporation lands activities at all stages would not be tabulated, nor impacts analyzed, including for 3D seismic, oil and gas exploratory drilling, water withdrawals, gravel mines, water reservoirs, seawater treatment plants, sewage treatment plants, power plants, airports, roads support bases, roads, production plants, ports or docks, and pipeline impacts from private development.

2000-acre interpretation

Throughout the DEIS, it assumes the 2,000-acre maximum, as if it’s a hard cap. However, there is no specific stipulations for leases or permits, nor clarity on when the limitation would be imposed and how. No GIS mapping and database system is proposed. Why won’t it be gamed by the oil companies, a la Enron style corrupt practices? An independent and publically transparent map and accounting system structure for recording and calculating the 2,000 acre footprint should be developed in the EIS, as well as to record gravel mines, water withdrawal sites, and all other surface disturbance impacts to tundra, from tundra trails, snow trails, ice roads, etc.

p. B-19 “Once all satellite pads feeding to a CPF are no longer producing or when the flow of produced oil is reduced to the point that operation is no longer economically viable, the CPF would be decommissioned. Following reclamation, the acreage would be regained against the 2,000-acre surface disturbance limit. This could allow for additional development of future fields as initial development is reclaimed.”

Comment: BLM provides no standard or requirements for “reclaimed acreage,” or “Reclamation.” The goal should include to restore to natural conditions of plant cover, species diversity, permafrost and hydrological flow patterns. For example, simply removing gravel from the surface of the tundra is not a sufficient standard.

Comment: The concept of that impacted lands could be “regained” against the 2,000-acre limit has a number of challenges. Relatively little acreage of land impacted by oil field infrastructure has been documented as being “reclaimed” or recovered. For example, of 18,357 acres of North Slope land impacted by oil fields infrastructure, only 471.23 acres had gravel pads removed, with 166.3 acres in process of recovery, and only 24.4 acres “recovered.”⁷ For 6763.5 acres of gravel mines, 5385.2 acres were in rivers, and 1,378.35 acres were in tundra.

“Facilities constructed with snow or ice have a fleeting existence, and thus this aspect of BLM’s interpretation is consistent with the temporal limit intended by Congress. Moreover, inclusion of such facilities would make Congress’s clear purpose – establishment of an oil and gas program on the Coastal Plain – impracticable.” DEIS p. 1-6.

Comment: There were no hearings on the Tax Act provision which evaluated the practicality in a rapidly warming Arctic of using ice roads or pads or snow trails or roads. The ice road season has diminished by drastically because of global warming. But in fact the effects of snow or ice facilities are not “fleeting” but can have long-term consequences such as seismic exploration lines, water withdrawals for the construction of ice roads may impacts water chemistry and quality and harm habitats used by overwintering fish, or crush unknown polar bear dens. In addition, the BLM interprets “production and support facilities” to exclude gravel mines given that they supply raw materials for construction of oil and gas facilities but are not themselves oil and gas facilities any more than are mills that supply steel for construction of pipelines and other facilities. DEIS p. 1-6.

Comment: This explanation that gravel mines excluded from the 2,000 acre limitation because they “supply raw materials” is preposterous on its face. Elsewhere on the North Slope, gravel mines used to support oil and gas projects are quantified as an integral part of impact analysis, including in the NPRA.

p. 3-38 Potential impacts on petroleum resources would vary based on the amount of acreage available for leasing and restrictions on future access to available acreage. Under all action alternatives, surface disturbance is expected to reach the 2,000-acre maximum for **surface disturbance**.

Impact Analysis – Geographic Scope

The geographic scope of impacts is illogical. Why does the DEIS include “marine vessel traffic from the shore of the refuge to Dutch Harbor, Alaska?” (DEIS ES-4). Why not Seattle, China, or other destinations where goods and services would originate. Why not consider the geographic scope of the entire North Slope for oil and gas cumulative impacts? Why not the Trans-Alaska Pipeline System including the tanker terminal and tankers along the West Coast shipping routes, as well as those of tanker exports to the Asian markets? Would oil or gas be transported from the Arctic Ocean and not Valdez?

The cumulative impacts analysis is generally limited to the geographic scope of the planning area (DEIS ES-4), but it does not make sense to exclude the nearshore State waters adjacent to the Refuge Coastal Plain, nor the federal OCS waters beyond the State 3 mile zone.

Development Scenarios

⁷ Ambrosius, K. 2014. Calculation of impacts of oilfield development. pp. 23- 31 in: Walker, D. A., M.K. Raynolds, M. Buchhorn, and J.L. Peirce. Nov 2014. Landscape and permafrost changes in the Prudhoe Bay Oilfield, Alaska. Alaska Geobotany Center Publication ACG 14-01.

BLM does not describe how its development scenario infrastructure predictions relate to the potential oil quantities that could be produced from the Coastal Plain. This is an important omission. BLM states that the range of potential oil production is from 1.5 to 10 BBO.⁸ Presumably the infrastructure required to produce these very different amounts of oil, and the amount of likely spilled oil, differs dramatically. BLM should explain how the estimates of the amount of the technically recoverable oil resource in the Coastal Plain connects with the scenario it uses to assess impacts.

Natural Gas

BLM appears to assume that no gas will be developed in the Coastal Plain because there does not yet exist a transmission pipeline to bring natural gas to market from the North Slope.⁹ However, plans for such the Alaska Natural Gas Pipeline is presently being developed through a Federal Energy Regulatory Commission process for which the Final EIS is scheduled for March 6, 2020 and 90-Day authorization deadline planned for June 4, 2020 (FERC, February 28, 2019 DOCKET No. CP17-178-000).

Hypothetical Development Scenario.

There should be an overlay map of total infrastructure expected. Although it was missing some aspects of this, the Alpine Full-Field Scenario map was presented in BLM 2004, and this EIS is still relied upon for new NPRA developments attached to the original Alpine. BLM needs to go back and compare the original Alpine with each change and new oil field development into the region. BLM provided no referenced scientific data to justify its acreage numbers of infrastructure or activities.

The DEIS does not contain a map drawn to scale showing the realistic and sprawling nature of oil development under the different alternatives. Such a map – which could use symbols to show well pads, pipelines, gravel and ice roads and gravel mines, Central Processing Facility and other building infrastructure – would allow the public to visualize and comment on the extensive nature of the development, and sufficient for impact analyses.

The geographic extent and spread across the Coastal Plain for oil prospects was mapped in the 1987 “1002 report” based on the results of the government sponsored 2-D seismic exploration program, see Fig III-1, “seismically mapped prospects (1-26) and resource blocks (A-D) in the 1002 area (Prepared by the Bureau of Land Management).” A similar map of prospect areas was not presented in the DEIS, nor did BLM provide no justification in the DEIS for any geological differences in data or interpretation since then, and the differences with the USGS studies it cites and others recent USGS Assessments which it doesn’t.

What are the reasons for differences in geological assessments of total oil and gas potential, as well as its geographic scope across the Coastal Plain since the 1987 “1002 report”? At that time virtually all of the oil potential appears to have been in the deformed area South of the Marsh Creek anticline, whereas now it is not. The 1987 Fig. III-1 shows extremely large geographic coverage for prospects 18 and 19; #18 covers 226,822 acres across an area from Barter Island east past the KIC well #1 on the east, out into the Beaufort Sea and south into the Niguanak hills and to the east of it, #19 covers 129,587 centered on the Niguanak River. So large geographically spread fields would require greater coverage of wells spaced spacing and therefore spread of exploratory and production pads, and connecting roads,

⁸ DEIS vol. 2 Appendix B at B-18.

⁹ DEIS vol. 2 Appendix B at B-2.

pipelines, and other infrastructure. The 1002 LEIS showed 26 prospects spread across the coastal plain; these areas could not be exploited with the 2-4 “Spiders” of hypothetical scenario BLM presents.

Seismic exploration

I attach my comments submitted in 2018 on the proposed SAE seismic surveys which should be addressed in this process. BLM has not explained what legal authority, if any, it has to offer pre-leasing seismic surveys, and also its authority to permit any seismic surveys during exploration. BLM needs to address the existing FWS seismic exploration regulations still on the books. BLM has ignored many of the standards, stipulations, Special Areas, and other protective measures of the earlier program conducted in the 1002 area, including its regulations CITE. The DEIS needs to address these differences when it considers its new standards and stipulations, their effectiveness in avoiding short-term and long-term surface disturbance, changes to plant cover and species diversity, permafrost thaw and hydrological changes. In considering cumulative effects, BLM must address the prior 2D seismic surveys in the refuge, as well as future surveys for the life of the program. As well, BLM must address the cumulative impact of seismic surveys across the North Slope, Beaufort and Chukchi Seas, both nearshore (state waters) and offshore OCS.

BLM has not explained whether the public will see any benefit in terms of new geological information about the oil and gas resources of the Refuge Coastal Plain. Will the oil company permittees in the Refuge be required to provide the raw data and specified formats so that the public will benefit from this information prior to the lease sale? Will USGS, our nation’s geological science experts, receive the seismic data for use in updated oil and gas assessments? Who else would receive this confidential information? Would the seismic company, such as SAExploration Alaska Inc. be eligible to exploration tax credits from the State of Alaska under current law – this would affect the revenue costs to the citizens of Alaska (and economic benefits unknown into the far future as the results of seismic surveys are kept confidential for a long time prior to being available to the public.

Cumulative Impacts

BLM failed to carry out an actual analysis of the direct, indirect and cumulative effects on the Porcupine caribou herd and its habitats from the of Coastal Plain oil and gas program and its subsequent infrastructure, activities, and production over the next 85- 130 years projected for oil and gas infrastructure and activities on leases.

The cumulative effects section for caribou is a mere two paragraphs which do not provide any actual analysis specific to the Porcupine caribou herd. There is no analysis of all the past, present and future impacts on the herd’s size, migrations, range, habitat quality, productivity, energetics from the oil and gas program in the Coastal Plain and in combination with oil and gas regionally as well as the combination of other disruptive industrial, transportation (roads, aircraft, barges) of past, present, existing and future North Slope development (including the adjacent Point Thomson oil condensate and eventual gas production and natural gas pipeline project, and other adjacent known fields west and north of the Coastal Plain), and combined with climate change impacts.

The Scope of analysis fails to take into account regional oil and gas impacts on the North Slope, and effects from the combination of offshore and on shore. Offshore development whether in nearshore State of Alaska waters or farther out in federal Outer Continental Shelf waters could result in chronic and large oil spills from blowouts, leaks or breaks from buried pipelines including at landfall. These

could oil and contaminate Porcupine Caribou Herd animals seeking insect relief habitat on nearshore sea ice and along barrier islands and shorelines, as well as the habitats themselves.

The cumulative impact analysis should broaden its geographic scope as it only considers shipping impacts for cargo barges to Dutch Harbor, but fails to include those from the Trans-Alaska Pipeline system including risks of pipeline breaks or spills into the Yukon River system, and tanker shipments from Valdez that transit down the Pacific coast to Washington and California, and also on export routes to China, Japan, Taiwan and other ports. Past and continuing impacts from the Exxon Valdez spill, and future effects from tanker transport risks spill impacts to transboundary shared resources including migratory birds, Pacific salmon, and marine mammals which should be analyzed.

Paleontological Resources

There is no mention of requirements of the National Paleontological Preservation Act of 2009¹⁰ and its requirements:

SEC. 6302. MANAGEMENT.

(a) In General- The Secretary shall manage and protect paleontological resources on Federal land using scientific principles and expertise. The Secretary shall develop appropriate plans for inventory, monitoring, and the scientific and educational use of paleontological resources, in accordance with applicable agency laws, regulations, and policies.

The DEIS provides no evidence of any inventories of paleontological resources conducted in the Arctic Refuge, nor has it compiled any baseline information specific to the Refuge Coastal Plain. While it states the “program area, and all the North Slope.... Is widely regarded as fossiliferous” defined as “rich in fossils or fossil potential” (DEIS p. 3-41) citing BLM 2012, that NPRA Integrated Activity Plan does not contain any information about paleontological resources in the Arctic Refuge, nor does BLM 2018a listed as a source for Pleistocene fossils identified “across the North Slope... which include remains that existed at the same time as human habitation, including bears, muskoxen, caribou and moose” (DEIS p. 3-42). Table 3-13, PFYC values of Program Area Geologic Bedrock Units does not associate with any maps, such as Map 3-8, but given that “most paleontological resources identified on the North Slope have been identified in areas west of the program area,” (DEIS p. 3-42), it seems unlikely that “noted fossil presence in unit” means that such types of fossils have actually been documented in the Arctic Refuge Coastal Plain and seems to mean that such Geologic unit encompassing a greater area of the North Slope contains such types of fossils. Table 3-13 indicates that 1.4 million acres of the Refuge Coastal Plain are expected to have “flora and fauna” fossils present including caribou and other animals and these are relevant to our current understanding of the long relationship of the Gwich’in in the region. Map 3-8, Paleontological resources fails to show source of the information for the different ranked areas, and the classification does not make sense since lumped categories overlap, e.g. (2-3) with (3). Nor is there a map which portrays the various PFYC geologic unit descriptions listed in G.2 (DEIS p. G-6 to G-8).

The DEIS fails to adequately describe the potential conflicts between potential sites of paleontological sites and also downplays impacts. For example, “potential direct impacts on paleontological resources

¹⁰ Paleontological Resources Preservation Act, P.L. 111-011, Subtitle D- Paleontological Resources Preservation.

would be limited to future ground-disturbing activities, including drilling and gravel mining.” (DEIS p. 3-43). Yet it fails to describe the extent of potential gravel mining that may take place.

Many gravel sites are likely due to the economics of hauling distances,

“One large gravel site or a series of sites in one area are not adequate for projects on the North Slope because gravel sites must be located close to construction projects and at regular intervals for road maintenance. Construction in Alaska requires short haul distances because of the high costs of transporting gravel. Economical reasons required gravel haul distances of 16 km or less, for the maintenance of the Trans-Alaska Pipeline.”¹¹

https://www.poa.usace.army.mil/Portals/34/docs/regulatory/publicnotices/2017/POA-2017-427_Sagavanirktok%20River_PN.pdf?ver=2017-12-05-145528-647

While it claims there would be protections from NSO restrictions “associated with setbacks from March [sic – Marsh] Creek and from the Canning, Hulahula, Aichilik, Okpilak, Jago, and Sadlerochit, Tayamiariak, Okerokovik, and Katakturuk Rivers would be common among all actions alternatives. They would reduce ground-disturbing activities in the surficial quaternary deposits next to these water bodies.” (DEIS p. 3-43) However, all stipulations, including NSO zones and these buffer zones along the rivers could be waived, excepted or exempted. Furthermore, the NSO stipulations do not prohibit gravel mining or excavation of water reservoirs in river channels or floodplains. I am also concerned about gravel production by destroying rock outcroppings which could be unique paleontological features, cultural sites, and are also used by birds, pikka and other small animals.

Appendix G: Potential Fossil Yield Classification System (PFYC) makes it clear that the “PFYC model for Alaska is in development” (see also DEIS p. 3-41) and explains that rankings for PFYC and unit descriptions are only preliminary for the CP oil and gas program area (DEIS G-5). How can BLM protect paleontological resources if it has not even compiled any baseline information, but merely discusses geological units, yet those categories are not mapped. Even past information from geological surface geology from the “1002 studies” and earlier has not been compiled nor evidence of review of data from cultural resources or other surveys.

Thank you for this opportunity to comment.

Sincerely,

Pamela A Miller

¹¹ https://www.adfg.alaska.gov/static/home/library/pdfs/habitat/93_06.pdf



*Nursery band of Porcupine caribou mothers and calves at 2 AM
along the Jago River a few miles from the coast,
Arctic National Wildlife Refuge (1002 Area)
Photo by Pamela A. Miller, June 30, 1988*

Comments Submitted to BLM on the Coastal Plain Oil and Gas Leasing Program Draft EIS

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Grizzly Bear
napping on snow field,
And Bear tracks
Katakturuk River, in the
Coastal Plain area
Arctic National Wildlife Refuge
Photos by Pamela A Miller,
7-5-2003





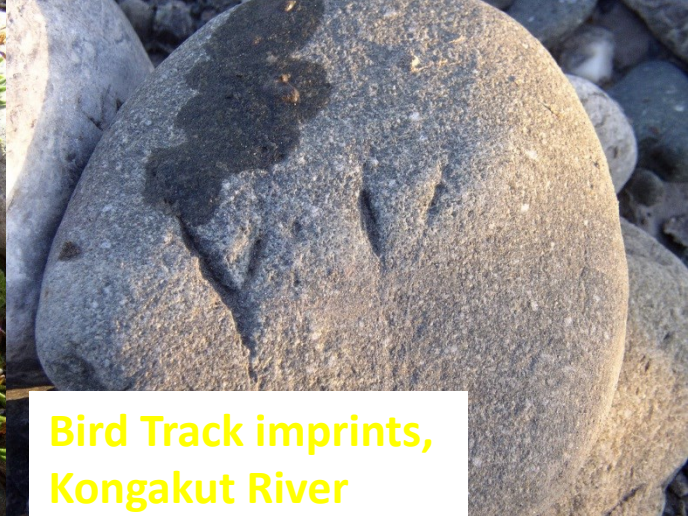
Snowy Owl feather



Forget-me-nots



**Fossils,
Canning River**



**Bird Track imprints,
Kongakut River**



**Lesser Golden
Plover Nest**



**Lapland
Longspur Nest**

All photos from "1002 Area" and along Katakturuk River, except as noted.
Arctic National Wildlife Refuge "1002 Area" by Pamela A Miller



“Caution Subsidence Well, Possible Hazardous Footing”
Prudhoe Bay Oil Field, Photos by Pamela A. Miller 7-21-2001

