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Sent: Wednesday, March 13, 2019 11:22 AM
To: coastalplainAR; Sean Cottle
Subject: Fwd: [EXTERNAL] Submittal Arctic Refuge Coastal Plain DEIS Comments
Attachments: COASTAL PLAIN OIL AND GAS LEASING PROGRAM.docx

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From: **Bee Long** <woodyfiber17@gmail.com>
Date: Wed, Mar 13, 2019 at 10:21 AM
Subject: [EXTERNAL] Submittal Arctic Refuge Coastal Plain DEIS Comments
To: <mnhayes@blm.gov>

Please confirm receipt of my comments.
Thanks,
Becky Long

Long
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COASTAL PLAIN OIL AND GAS LEASING PROGRAM
DRAFT ENVIRONMENTAL IMPACT STATEMENT COMMENTS

1/22/2019

This proposed leasing is a prominent national and international issue. The April/May 2018 scoping comment period for this draft EIS elicited 4,226 individual comments from government agencies, organizations, and individuals and 756,228 form letters and petitions from 124 citizen campaign form letters and 16 petitions. I myself provided 8 pages of scoping comments. This shows high interest.

Millions of birds come to the coastal plain to breed, feed, and molt from all 50 US states and 6 continents including Antarctica. This fact makes the coastal plain an area of global significance. A 2018 Birdlife International Report stated that 40% of the world's 11,000 avian species are in decline. Now certainly is not the time to degrade this global habitat by industrial development.

I support alternative A which is no leasing; keeping the current state. Now BLM will say that alternative is not possible because of passage of P.L. 115-97. But actually alternatives B, C, and D all go against this law by offering from a million acres to the whole coastal plain for leasing. This is way more than the law stated. If BLM can stretch the law, I can support Alternative A.

Comment on Abstract of the EIS by Acting Director Ted Murphy-no page number

Comment Title: A Revised and/or Supplement Draft EIS is Necessary.

A revision is necessary because of the inadequate process and deficient analyses.

1. The Coastal Plain EIS process is inadequate. The timeline is being fast tracked to occur within just one year. This is an unnecessary action because the 2017 law said the leasing needed to occur within 4 years. NEPA is being eroded. The public is being disenfranchised. The public policy that is being created is irresponsible. This should be a multi-year process for a development whose impacts are irreversible. The US is already energy dominant in the world. So what is the hurry? One can only conclude this is a political decision to rush the process in case a new administration gets elected in 2020.

Even the oil and gas industry is saying that this EIS process should not be rushed. The government should take whatever time is needed. This is exemplified by a quote in the media by Kara Moriarty who is the Executive Director of the Alaska Oil and Gas Association, and industry group. **"We want this to be a thorough process because we know it is going to be challenged in court."**

Inadequate public comment period- The public comment period for the draft should be extended to 120 days as US Senators and Representatives have written to the Interior Department. The Draft is complex encompassing a lot of data and issues. This comment period occurred over the holidays. Also the public is being bombarded with many

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comment period deadlines at the same time for development projects in the Alaskan Arctic. The public has a hard time juggling all these processes occurring at the same time for Arctic resources. Meaningful comment is a challenge. This almost seems to be happening on purpose in order to divide public concerns.

The comment period was extended by a month, thankfully. But it should be extended beyond that to the exact number of days that the government was shut down. Federal agencies such as NOAA/NMFS, USFWS, EPA and others were not allowed to work during the shutdown. Thus, they will have too limited a time to evaluate and comment on the issues they are mandated by law to focus on. The federal agencies have the expertise necessary to evaluate issues based on the latest scientific data and research. The public depends on their expertise that is used to inform public policy. By limiting the federal agency work, the public is disenfranchised.

2. Deficient Analyses- (see below in comments on the sections)
 - Lack of data on the Carrying Capacity of useable water resources for industry use
 - Lack of quantitative analyses. The public is not satisfied with only qualitative analyses.
3. A Revised Draft is necessary to include an Alternative E. See discussion regarding section 2.

Comment on Page (P.) 1-4, Introduction Sec 1.9, International Agreements, Laws, Regulations, and Permits

Comment Title: *Lack of consultation with Canada. The US has broken International Treaties*

Canada and the US have 4 different agreements: conservation of the Porcupine Caribou Herd, 2 on polar bears and 1 on migratory birds. These are agreements to commitments to preserve habitat. Specifically, the Agreement between the Government of Canada and the Government of the United States of America on the Conservation of the Porcupine Caribou Herd (PCH) is not being implemented.

Environment Canada, the governments of the Yukon and Northwest Territories and Canadian First Nations are being treated just as members of the public i.e. no special status. The Agreement process for activities that are likely to cause significant long term adverse impacts on the PCH or its habitat under the agreement is not being followed. This process is:

- Activities require both Party's approval,
- Subject to an impact assessment and review consistent with domestic laws,
- Notification of one country to the other country,
- The parties must be given an opportunity to consult prior to the final decision, and
- May require mitigation.

Has any of the above happened? Has the process even started? Has BLM, as the lead Interior Department agency, met with the International Porcupine Caribou Board?

This is a reason for a Revised or Supplementary Draft.EIS.

Comment: Chap. 1.9.1 Tax Cuts and Jobs Act of 2017

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Comment Title: The 2000 acre Surface Development Limit parameter. This cannot be met.

The 2000 acre parameter number history is this. In 1995, former British Petroleum official Roger Herrera testified in Congressional hearing that oil and gas leasing in the coastal plain would only be 2000 acres. This numbered acreage has become a political foundation of the leasing campaign because it could indicate a low development footprint which is an obvious public relation tactic. The 2017 tax law included this parameter.

The 2000 acre rule parameter is a smoke and mirror tactic to try and show that there will be a small footprint from the leasing development. The definition of surface disturbance is what allows the parameter to seem a small footprint. But in reality, nothing could be further from the truth.

There will be 200 miles of roads, 210-250 miles of elevated pipelines, gravel roads, airstrips, and 325 acres of gravel pits from which 13 million cubic yards of gravel will be removed. DEIS does not count the roads on state or native land within the coastal plain. And every pipeline is guaranteed to have a road accessing it.

The DEIS interpretation and the tax law of what is surface disturbance is wrong. Ice roads and pads, elevated pipelines and gravel mines are not counted for various reasons. The main reason is that these are not oil and gas facilities. The DEIS interpretation that the 2000 rule is at any given time as quoted on p. 3-221 is wrong and actually goes against the tax law. Appendix B-9 states that if they include the above type development in the 2000 rule then the leasing program would be impracticable. Well, too bad for that. The 2000 acre rule should apply **as a total amount for** all surface development for all the future leasing in the law.

The only conclusion is that leasing surface development will not be limited to 2000 acres. There is no way that it could be followed. The DEIS creative definition of disturbance at any one time is a subversion of the 2000 acre rule.

Comment Page 1- Section 1.10 ANILCA Section 810 Evaluation

Public Hearings in other Villages are Necessary.

Besides Kaktovik, Arctic Village, Venetie and Nuiqsut should have public hearings on the subsistence resources that might be affected by impacts on the Central Arctic and Porcupine Caribou Herds.

Currently, the Nuiqsut Tribal Council has filed in court a suit against BLM for their inadequate analysis of impacts on their community of an exploratory drilling program in the NPR-A by Conoco Phillips. The Council states that the impacts outweigh the benefits and their concerns of the community have not been addressed. They are trying to fully understand and adapt to the fast paced changes of their environment and the impacts from being surrounded by drilling rigs and the oil industry. This should be a lesson to BLM about the importance of hearing community concerns.

Comment- Page 2-39 Section 2.3 Alternatives Considered But Eliminated From Detailed Analysis.

Comment Title- An Alternative E must be considered.

The Project Area of 800,000 acres fulfills the statement on P. 2-1 which says a wide range of management options consistent with applicable law should be considered. This 800,000 acre alternative complies with the PL 115-97 law. Title II. Sec 20001(c)(1)(B)(i)(I) states not fewer than 400,000 acres area-wide in each lease sale. A smaller footprint alternative with the 2000 acre surface limitation would satisfy much of the public.

Comment- P. 3-6, Chapter 3.2.1 Climate and Meteorology, Impacts associated with potential development on climate change.

Direct and Indirect Greenhouse Gas (GHG) Emissions are underestimated.

The draft underestimates emissions by only calculating only “the relatively small increase in US demand from increased US supply.” The draft only states there is a potential for additional GHG emissions from combustion of products themselves in global market place. But this is the exact data number that should be calculated i.e. burning all of the oil and gas that is projected to be extracted. This is important because p. 3-5 states the macro-scale effects on climate change would be through the increased GHG emissions.

Carbon equivalent emission as a data category needs to be explained.

Comment- P. 3-8 Chapter 3.2.1. Indirect Emissions from Future Development

GHG data is incomplete.

The draft states the EPA 2016 data that 3.1% of US total GHG Emissions are from methane associated with oil and gas production. It is much more than that. The 11.23.2018 US Geological Survey report **FEDERAL LANDS GREENHOUSE GAS EMISSIONS AND SEQUESTRATION IN THE UNITED STATES: ESTIMATES FOR 2005-2014**, Report 2018-5131 shows that an average of 23.7% of carbon dioxide emissions, 7.3% of methane emissions and 1.5% nitrous oxide emissions are from oil and gas drilling and production on federal offshore and onshore owned leases.

Methane is a potent GHG emission which enters the atmosphere from flaring, venting, and infrastructure leaking of natural gas. Methane is the primary component of gas, 87% to 97% by volume. Methane’s warming effect is 87 times greater than carbon dioxide over a 20 year period and 36 times greater over a 100 year average.

We as a nation were on a trajectory to reduce methane emissions. But the current federal administration is gutting the EPA and BLM 2016 waste prevention rules that would have reduced 35% of emissions. We will NOT have comprehensive leak detection and repair requirements, methane capture standards for various field equipment and common drilling practices nor volume metrics and percentage based venting and flaring limits. So the impacts will continue.

The oil and gas industry states that methane emissions from production are unavoidable. In a 12/18/2018 Alaska Oil and Gas Conservation Commission hearing on methane emissions, Kara Moriarty, the Executive Director of the Alaska Oil and Gas Association which is an industry trade lobbying group testified to the following. **“The venting or flaring of some natural gas is**

practically an unavoidable consequence of oil and gas development. Routine and continuous flaring of pilot and purged gas during the non-emergency situations is a key component to the safe development of oil and gas reserves.”

Additionally, flaring of the gas associated with drilling and production produces black carbon which is a known and recognized localized warming impact on ice and snow thus creating more climate impacts. Flaring also produces particulate matter and toxics such as benzene which are known carcinogens. This affects the environment and human health.

Comment-P. 3-9 Chapter 3.2.1. Social Costs of GHG Emissions

The Social Cost of Carbon (SCC) Protocol should be used to quantify impacts.

The SCC protocol should be used to analyze possible climate change impacts. Tribal climate adaption planning efforts in the North Slope could be used as inputs into the protocol. The communities of Kaktovik, Nuiqsut, Atkasak, and Wainwright have completed Impact Assessments. Utqiagvik has had workshops and webinars.

Comment- P. 3-9 Ch 3.2.1. Cumulative Impacts

Basic statements from recent scientific data need to be stated in the draft.

On 10/6/2018 the United Nations Intergovernmental Panel on Climate Change summarized that the world has 12 years to halve its carbon dioxide emissions if it is to keep the global warming to only 1.5 degrees C and avoid catastrophic climate change. Globally, emissions must drop 55% by 2030 to meet global climate goals.

The lengthy production timeline from the proposed leasing program means that production will actually be happening at the very time when the scientific realities of climate change show that there needs to be a TRANSITION AWAY FROM FOSSIL FUELS.

Volume I of the Fourth National Climate Assessment (NCA4) Chapter 11 Arctic Changes and their Effects on Alaska and the Rest of the United States lays out climate change impacts succinctly.

- ❖ A Key Finding with Very High Confidence. Key finding with Very High Confidence. The annual average near-surface air temperatures across Alaska and the Arctic have increased over the last 50 years at a rate more than twice as fast as the global average temperature. This variability exceeds the inter-annual variations caused by decadal variations. (p. 303 of CSSR)
- ❖ Especially strong warming has occurred over Alaska’s North Slope during the autumn.(p.305)
- ❖ Snow cover has significantly decreased in Alaska over the last decade. (p. 310)
- ❖ A key finding with high scientific certainty is that rising Alaska permafrost temperatures are causing permafrost to thaw and become more discontinuous. This process releases additional carbon dioxide and methane and resulting in amplifying feedback and additional warming. The permafrost warming rate varies regionally. The colder permafrost of the North Slope is warming faster than in the Interior. The continued permafrost degradation and the transition from continuous to discontinuous are expected over the 21st century. Alaska’s permafrost contains rich and vulnerable organic carbon

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soils. A possible significant and potentially uncontrollable release of carbon could provide a lot to the global carbon cycle. (p. 303, 305, 316)

- ❖ Recent measurements that cold season (after snowfall) permafrost emissions are greater than summer emissions has shown that permafrost thaw is occurring faster than models have been predicting due to poorly understood deep soil, ice wedge and thermokarst processes by the models . (p. 315)
- ❖ Permafrost temperatures across the North Slope at various depths ranging from 39 to 65 feet (12-20 meters) have warmed between 0.3 degrees and 1.3 F (0.2.-0.7 C) per decade from 1975-2015. Permafrost active layer thickness increased across much of the arctic with significant permanent thaw slumping indicating significant ongoing thawing and rapid future thawing. (p. 314)

Comment-P. 3-9 Ch 3.2.10 Water Resources, *Impacts Common to all Action Alternatives. Water Withdrawals*

One must conclude that there is Limited Water Resources for Industry Use.

It is questionable whether there is enough water available for industry to operate for the full oil and gas leasing program proposed. What is the carrying capacity of the water resources on the coastal plain if the leasing program commences? The first priority after all must be the specific purpose of the Refuge which was established under ANILCA which is to ensure “water quality and necessary water quantity within the refuge” to conserve fish, wildlife and habitats.

Water is particularly scarce in the program area as compared to the western part of the North Slope. According to the USFWS water quantity is limited and it is technically a very dry area. There is less than 5 inches of precipitation a year. Most of the water available comes from spring snowmelt.

The DEIS itself says that drilling each well requires 420,000 to 1.9 million gallons of water. All of the alternatives have that at least 540 wells would be drilled. This will require between 227 million to 1 billion gallons of water just to drill the wells. Every ice road mile needs 1 million gallons, and an ice pad needs 500,000 gallons. Daily production of oil would require 2 million gallons of water per day. The DEIS says that over the life span of the program, which is on a 50 to 100 year period, there would be up to 142 million barrels per year on the average.

This is billions of water per year. 1.3 billion gallons yearly to drill and 5.7 billion gallons per year once production starts. The draft does no new analysis on how much water is actually available.

Comment: P. 3-61-62 Ch 3.2.11 Solid and Hazardous Waste. *Direct and Indirect Impacts. The oil spill risk is underestimated.*

DEIS states that based on historic North Slope Oil and Gas spill data, this leasing program could result in up to 1745 oil spill including 6 large ones. To say that the risk of a spill greater than 100,000 gallons is low is illogical. The reason given is that there were only 3 documented spills that large between 1985 and 2010. Because of the US Energy Dominance policy of the current federal and state administrations, there will be a steep increase in the amount of fossil fuel leases on all public lands on the North Slope.

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The DEIS statistics are off. The North /Slope oil fields from 1995-2005 had more than 400 oil spills per year. Across Alaska from 2002 to 2016, there were 16 major spills of more than 10,000 gallons. Five of those spills were over 100,000 gallons.

In 2017 a North Slope British Petroleum well gushed oil for 3 days straight before the emergency response was able to kill the well. Crude oil sprayed over 1 acre area and caused gas to vent for days also. Well failure was linked to permafrost thaw. The thawed soil triggered movement that pushed the well up to 3 or 4 feet. This broke a pressure gauge that had regulated the site. As a result, BP shut 14 wells because of outdated and flawed designs.

The DEIS uses data from other North Slope EISs and Prudhoe Bay operations as baseline data throughout Volume 1. Thus, BLM needs to pay attention and follow the results of the current Alaska Oil and Gas Conservation Commission (AOGCC) Docket # OTH-18-064 in their data analysis of actual spill possibilities from leasing wells in permafrost. BLM needs to inform the engineering of the wells in order to prevent spills caused by permafrost subsidence. Docket OTH-18-064 is Regarding the Mechanical Integrity of Prudhoe Bay Wells. This Docket is NOT finished. The AOGCC 2/28/2019 Order is attached and is the latest explanation of what is occurring.

The Docket explains in the last 18 months, British Petroleum Exploration Alaska, Inc. (BPXA) experienced sudden well head rise on 2 drill site wells (1 was flowing and the other had been shut for 12 years) and 1 injection well causing permanent damage to surface casing and flow tree assembly and impacts to the well house. These 3 incidents raised concerns about mechanical well integrity relating to permafrost subsidence.

The issue is 2-casing-string and 3-casing-string designs. Permafrost subsidence loading could result in the displacement of the surface castings with loads on such that could result in sudden catastrophic failure. AOGCC thus far has concluded:

- Areas of uncertainty are: the implications of surface casing placement relative to the depth of permafrost and the likely importance of the high degree of variability in rock properties of the geologic strata occurring in the permafrost zone.
- Quantitative historical subsidence measurements of Prudhoe Bay wells are only known from 2011 on.
- Early permafrost subsidence could have been significant and possibly non-linear with time.
- Unquantifiable stored energy into the casing strings for Prudhoe Bay wells may now have been imparted.

The information that comes from this Docket is important for the consideration of well design leasing requirements for the Coastal Plain which has significant permafrost.

Comment- Chap. 3.3.4 Terrestrial Mammals Affected Environment

Leasing Impacts on the Porcupine, Central Arctic, and Teshekpuk Lake Caribou Herds are underestimated with essentially no mitigation.

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Sensitive Habitat- The draft estimates that only 49% of the coastal plain is sensitive habitat to the caribou. This is inaccurate. The herd uses pretty much all the coastal plain during the calving and post calving. BLM's own Map 3-21 shows calving and post calving area covers most of the plain.

The first three weeks after birth, the calves are totally dependent on mother's milk. If the cows are in poor condition, then the calves are weakened. The first month there is usually 25% mortality due to birth defects, poor nutrition, and predators (golden eagles, grizzly and wolves). **Based on biological survey data, calf survival is 8 to 11 % greater if they are born in the 1002 area.** To put it another way, the poor diet quality on the Canadian coastal plain with a higher density of predators would substantially increase the calving mortality by 19% on top of the 24%. In the last 30 years, only three times have the caribou calved in the Canadian coastal plain.

There is no evidence that calves or cows can compensate later in the summer for poor late June physical condition. If animals are in poor condition in the fall, then pregnancy can be reduced, the age of the first reproductive cycle may be delayed, and winter mortality increases. Central Arctic Caribou Herd research shows that there is a measureable avoidance by cows and calves of a zone within 4 kilometers of roads and pipelines and other infrastructure. The impacts of leasing on the coastal plain would cause overall population decline as a result. The Porcupine Caribou Herd has the longest mammalian migration on earth.

It is inaccurate to conclude that there is no impact on caribou subsistence resources of the Gwich'in and Inupiaq peoples in Alaska and Canada. There needs to be an 810 hearing under ANILCA because a significant portion of their subsistence comes from the Porcupine and Central herds.

Comment- Chap 3.3.5 Marine Mammals. Polar Bear
DEIS has Inadequate Analysis of Polar Bear Impacts.

All of the Action alternatives affect large areas of the critical habitat of the South Beaufort Sea polar bear population. Critical denning habitat makes up 77% of the program area especially in the hydro carbon potential zones. With climate change impacts, the coastal plain will even be more important as habitat as changes intensify. There are no estimates of the number of bears that could be killed, injured or displaced by the leasing program and the seismic testing that happens beforehand. Human and bear conflicts will escalate. If the leasees do locate bear dens, will they actually change the drilling area?

Respectfully Submitted,

Becky Long