



CoastalPlain\_EIS, BLM\_AK &lt;blm\_ak\_coastalplain\_eis@blm.gov&gt;

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**[EXTERNAL] ANWR Coastal Plain Oil and Gas Leasing Program EIS**1 message

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Lorene Lynn &lt;lorene.lynn@rmcalaska.com&gt;

Tue, Jun 19, 2018 at 1:54 AM

To: blm\_ak\_coastalplain\_EIS@blm.gov

To Whom it May Concern Regarding the Coastal Plain Oil and Gas Leasing Program EIS,

Please accept my scoping comments as part of the official record of comment. I have included my letter within the body of this email and also as a letter attachment.

BLM

Attention: DOI-BLM-AK-0000-2018-EIS (Coastal Plain Oil and Gas Leasing EIS)

Leasing Program EIS

222 West 7<sup>th</sup> Avenue, Stop #13

Anchorage, Alaska 99513

Dear Planners:

**Summary.** The environmental impact statement DOI-BLM-AK-0000-2018-EIS needs to include consideration of the following topics:

- Aircraft disturbance
- Increasing marine activities
- Air pollution
- Permafrost
- Water resources
- Tundra and vegetation disturbance and rehabilitation
- Social and economic impacts
- Contaminants
- Climate change
- Cumulative effects

For sufficiency, the EIS scope should be broad enough to encompass the following:

- The range of consequences forecast by stochastic probabilities rather than deterministic models;
- Practices not in compliance with permits; and
- Forecasts of permanent project impacts, i.e., indefinitely post-DR&R.

**Details.** The environmental impact statement DOI-BLM-AK-0000-2018-EIS needs to include consideration the following topics:

Aircraft disturbance

Disturbance from increased air traffic associated with studies, exploration, operations, and dismantlement, removal, and remediation (DR&R) activities needs to be considered. Aircraft disturbance has been

repeatedly identified as an item of high concern from people who live on the North Slope, especially by subsistence hunters.

### Increasing marine activities

Marine traffic is already increasing with the decrease in sea ice extent, thickness, and time period. The proposed lease sale would contribute to the volume of marine activity. The EIS needs to consider impacts to subsistence whale and fish activities, including acoustic ecology, caused by marine activities. As ice cover continues to decline, ambient and anthropogenic sound conditions will continue to change.

Interference with subsistence activities: existing information suggests that unfettered increases in marine activities will eventually lead to changes in the behavior of some marine mammals that will reduce their availability as subsistence food.

Marine discharges of pollutants.

Law of the Sea implications.

### Air pollution

Arctic haze has increased as oil and gas development continue to grow. Lung and other pulmonary health issues from an increase in air pollution, including black cloud events, needs to be addressed.

### Permafrost

The area included in the proposed EIS tends to have higher ground ice content and is thus more susceptible to subsidence, thermal erosion (erosion by melt water), and thermokarsting. The information given in the Point Thompson EIS is not applicable to the 1002 Area. Point Thompson is located on an alluvial fan with high gravel content and low ground ice. The higher ground ice content present in the 1002 area may result in greater ponding against the hydrologic upgradient side of roads and pads, greater maintenance needs for annular thaw at wellheads, and may require greater depth of gravel for roads and pads to prevent thaw of the underlying permafrost.

Changes in soil hydrology may influence the fire regime within the 1002 Area.

Winter tundra travel windows are becoming shorter, thus decreasing the amount of time each winter in which ice roads may be built and used as a minimization of impact to the ground surface. A shorter window for ice roads will increase the need for placing gravel as an alternative travel route and will limit the accessibility of remote infrastructure for maintenance activities.

Inadequate ice or snow thickness on winter roads results in significant damage to the tundra surface which is followed by expensive and complex tundra rehabilitation projects as have occurred in the Kuparuk oil field and on the winter road to Umiat.

### Water resources

Flooding events during spring break up, as have been seen along the Sagavanirktok River and the Endicot causeway, are increasing in frequency and severity. Future planning for larger and more frequent flood events needs to be taken into account.

Can surface water withdrawals for operational needs and ice road construction be made while satisfying instream flow needs? Hydrologic data for individual small headwater hydrologic systems (streams and lakes) are severely lacking. These data need to be collected and a baseline established. While each stream and tributary to the watershed is small, cumulatively, they have a large impact on the environment for nutrient and sediment transport. These systems upstream from the proposed lease area are poorly understood. They need to be studied before assessment of impacts from oil and gas leasing can be determined.

During normal oil and gas operations, lakes are repeatedly pumped each winter: are the lakes completely recharged the next spring during snowmelt and are there any cumulative effects?

### Tundra and vegetation disturbance and rehabilitation

The criteria for routing of ice and snow roads needs to be defined to avoid areas with tussock vegetation or deep wind scour of snow, resulting in tundra vegetation being exposed in winter.

No substantial effort has been made to synergistically assess North Slope rehabilitation needs at the landscape level that accounts for water flows, habitat fragmentation, and other factors beyond the site-specific scale. These larger scale concerns need to be addressed.

The long-term impacts of road dust accumulation on tundra vegetation adjacent to roads and pads needs to be addressed. The last major study on this topic is over two decades old. Road dust accumulation has been observed to alter vegetation communities, soil pH, and wildlife behavior in spring.

Currently, most gravel mines are restored by turning the mined areas into lakes. While this may be aesthetically pleasing in the short term, no strategy has been developed for where to put all the gravel removed from the mine during DR&R activities. A long-term plan for the use and placement of gravel, including addressing where the gravel will be placed after field closure, needs to be addressed.

### Social and economic impacts

The evaluation of impacts on land-use need to include systems-based concepts such as ecosystem services, food security, and sustainable local livelihoods in order to address the larger-picture and long-term impacts of oil and gas development in proximity to Alaska Native villages.

### Climate change

The climate in the arctic is changing rapidly. The changes associated with the warming climate, including (but not limited to) changes to wildlife, hydrology, permafrost thaw, storm frequency and severity, wind events, and vegetation need to be address explicitly. Regardless of why the climate is warming, the changes are factual and are affecting people and the environment. The proposed leases will potentially increase the output of greenhouse gasses, while the project itself will be affected by climate change. Climate change needs to be a discreet, explicit section in the EIS to address these concerns directly.

For example, climate change will likely influence the spread of invasive species, both marine and terrestrial, which could have additional impacts to human and ecological health and system function.

### Cumulative effects

The cumulative effects section needs to address all aspects of cumulative effects including additive effects, nonlinear effects, nested effects, and others.

For example, this proposed lease sale could result in contributions to ocean acidification via increased output of carbon dioxide during all phases of the project: exploration, drilling and operations, and during DR&R activities. Long-view and long-term effects such as this need to be directly addressed in a systematic manner.

Human health and societal health should be explicitly considered as part of cumulative effects.

Cumulative effects should be considered as a transboundary issue and include, but not be limited to, analysis and consideration of caribou protection and fisheries treaties.

**Conclusion.** As an Alaskan, I am a stakeholder who will inherit the risks of this proposed lease sale and subsequent development. I am interested in the EIS analysis and predictions of the consequences of the risks extending through the entire lifetime of any potential development associated with this EIS.

Sincerely,

Lorene

Lorene Lynn

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**ANWR 1002 EIS scoping comments\_BLM\_Lynn.pdf**  
32K

BLM

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