

Nicole Hayes  
Coastal Plain Oil and Gas Leasing Program EIS  
222 West 7th Avenue, Stop #13  
Anchorage, Alaska 99513



Dear Ms Hayes,

The Yukon chapter of the Canadian Parks and Wilderness Society (CPAWS) works alongside Indigenous peoples, outdoor enthusiasts, outfitters, hunters and members of many other diverse communities who believe in the protection of special wild places. The Yukon is Alaska's closest neighbour, and we enjoy a long shared history of friendship and collaboration. Since the Yukon and Alaska are impacted by developments within each other's respective territories, it's critical that cross-border considerations be addressed in decision making processes.

The proposed oil and gas leasing program for the Coastal Plain of the Arctic National Wildlife Refuge would have a tremendous impact on the Yukon. Oil and gas activities could cause irrevocable harm to the Porcupine caribou herd, which is critical to the culture and subsistence ways of life for Indigenous peoples across northern Yukon, and into the Northwest Territories. For this reason, CPAWS Yukon is opposed to any oil and gas activities in the Arctic Refuge.

The U.S.-Canada Joint Statement on Climate, Energy, and Arctic Leadership of 2016 affirms the need for cooperative and respectful engagement between Canada, the United States and Indigenous Nations on Arctic issues. The statement recognizes that "Arctic communities rest on the territories of Indigenous peoples, who possess a wealth of knowledge, distinct ways of life, and a richness of cultural diversity. [The Arctic] is home to natural marine, land and air migrations that know no borders. It is also the frontline of climate change." The Statement further signals that "Canada and the U.S. are committed to collaborating with Indigenous and Arctic governments, leaders, and communities to more broadly and respectfully include Indigenous science and traditional knowledge into decision making, including in environmental assessments, resource management, and advancing our understanding of climate change and how best to manage its effects." CPAWS Yukon calls on the U.S. Government and the BLM to stand by these pledges as it pursues the EIS of proposed oil and gas activities in the Arctic Refuge.

CPAWS Yukon requests that the BLM conduct a comprehensive environmental review of the proposed oil and gas leasing program in the Arctic Refuge. Such a review must be inclusive of both direct, indirect and cumulative effects of potential industrial development, be founded on evidence-based decision making, respect the traditional knowledge of Indigenous peoples, and give thorough consideration to the transboundary impacts of potential oil and gas activities. CPAWS Yukon's specific comments to the scoping of the EIS follow.

Thank you,

Chris Rider, Executive Director, CPAWS Yukon

## **1. Oil and gas activities on the Coastal Plain could be detrimental to the Porcupine caribou herd.**

The Porcupine caribou herd is one of the last healthy barren ground caribou populations in Canada (COSEWIC, 2016). The proposed oil and gas leasing program falls in the heart of the calving grounds of the Porcupine caribou, a critical habitat that offers nourishing plant life, and reprieve from predators and noxious insects. Oil and gas activities in the calving grounds could put the herd at unprecedented risk. Unlike other parts of Alaska's North Slope, the coastal plain of the Arctic National Wildlife Refuge is tightly constrained between the Brooks Range and the Beaufort Sea, meaning that caribou may have a diminished capacity to disperse away from potential oil and gas infrastructure and the associated disturbances. The EIS should make every effort to analyze data from the Porcupine caribou herd, and take a precautionary approach when using data from other herds, due to the differing ecological and geographical context of the Coastal Plain of the Arctic Refuge.

The EIS should comprehensively review the potential direct and indirect effects of oil and gas activities on the Porcupine caribou herd, with special focus on the impacts on calves and their mothers. The EIS should assess how the Porcupine caribou herd may be affected by oil and gas related impacts such as noise, seismic activities, roads, air traffic and pollution. The EIS should undertake a cumulative effects analysis that considers the impacts of the proposed Coastal Plain oil and gas activities, alongside the impacts of climate change and harvesting.

The construction of roadways within the Coastal Plain may facilitate increased access to the Porcupine caribou from harvesters and poachers. The EIS should study the impacts of a potential increase in harvest rates on the Porcupine caribou, and explain what regulatory and enforcement protocols the Alaska Department of Fish and Game would use to manage increased access to the Coastal Plain by harvesters and poachers.

The EIS should also examine the population fluxes of the Porcupine caribou herd, and assess the potential impacts should oil and gas activities coincide with the natural decline phase of the population cycle. The EIS should explain what monitoring tools would be used to distinguish natural fluctuations in Porcupine caribou herd populations from declines associated with oil and gas activities on the Coastal Plain.

The EIS should seek input from Canadian scientists, governments and Indigenous knowledge holders on the potential effects of oil and gas activities on caribou, and the transboundary impacts of the proposed activities. The EIS should also identify gaps in knowledge that may increase the uncertainties of any proposed caribou-specific mitigation scenarios.

## **2. Activities harmful to the Porcupine caribou herd may adversely affect many communities within Canada that rely on the herd.**

The EIS should assess how industrial activities within the calving grounds of the Porcupine caribou herd could adversely impact the cultural and economic livelihoods of the peoples of

northern Canada. Most importantly, the EIS must consider the importance of caribou to the ways of life of Indigenous communities within the Yukon and Northwest Territories. The EIS should evaluate how activities detrimental to the health of the Porcupine caribou herd could affect food security in Indigenous communities. Diminished access to caribou could force people into a greater reliance on commercial groceries, which cost substantially more in remote and fly-in communities than in the southern Yukon. For instance, the weekly cost of a nutritious diet in Old Crow is 58% greater than in Yukon's capital city, Whitehorse (Hammond, 2017). In addition to food security, the EIS should consider the importance of caribou in the cultural, social and kinship systems of Indigenous communities within Canada. The EIS should include a comprehensive socio-economic assessment of the impacts of potential declines of the Porcupine caribou herd on Indigenous peoples within Canada.

The EIS should pay special attention to the provisions of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which the United States has endorsed. Articles of special relevance to the proposed oil and gas leasing program include Article 24 which states that "Indigenous peoples have the right to their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, animals and minerals" and article 32, affirming that "[s]tates shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources." The BLM should ensure that no oil and gas activities proceed without the free, prior and informed consent of impacted Indigenous Nations.

The Porcupine caribou herd is also harvested by licensed non-Indigenous hunters in the Yukon and NWT, providing meat for freezers, business for outfitters and revenue for businesses across Northern Canada. The herd provides value to photographers, outdoors people, and tourism industries. The EIS should consider the transboundary importance of caribou to hunters, outfitters, tourist operators and outdoor enthusiasts in Canada.

### **3. The Porcupine caribou herd is integral to trophic webs across the north.**

The Porcupine caribou herd undertakes the longest migration of any land mammal on earth. The Porcupine caribou are critical to sustaining the populations of wolves, grizzly bears and wolverines throughout the range of the herd. The EIS should evaluate the ecosystem-level impacts of potential declines in the herd associated with the proposed Coastal Plain oil and gas activities. This analysis should address how trophic interactions throughout the Porcupine caribou herd range could be disrupted by potential declines in caribou. The EIS should also assess how outfitters, trappers, subsistence hunters and other groups that rely on animals such as wolves, grizzly bears, wolverines could be impacted by the ecosystem-wide impacts of potential declines in Porcupine caribou populations.

### **4. The Porcupine Caribou Herd Conservation Agreement and the Alaska National Interest Land Conservation Act emphasize consultations between the US and Canada.**

As outlined by the Porcupine Caribou Herd Conservation Agreement of 1987 between Canada and the United States, parties are “[t]o conserve the Porcupine Caribou Herd and its habitat through international co-operation and co-ordination, so that the risk of irreversible damage or long-term adverse effects as a result of use of caribou or their habitat is minimized.” This treaty states additionally that “[w]here an activity in one country is determined to be likely to cause significant long-term adverse impact on the Porcupine Caribou Herd or its habitat, the other Party will be notified and given an opportunity to consult prior to final decision.”

Further, when the U.S. Congress addressed the potential for oil and gas development in the Coastal Plain in the Alaska National Interest Land Conservation Act of 1980, it explicitly required the United States to consult with Canada on issues related to the Porcupine caribou and other Arctic Refuge birds and wildlife. Section 1005 provides, “[t]he Secretary shall work closely with the State of Alaska and Native Village and Regional Corporations in evaluating the impact of oil and gas exploration, development, production, and transportation and other human activities on the wildlife resources of these lands, including impacts on the Arctic and Porcupine caribou herds, polar bear, muskox, grizzly bear, wolf, wolverine, seabirds, shore birds, and migratory waterfowl. In addition the Secretary shall consult with the appropriate agencies of the Government of Canada in evaluating such impacts particularly with respect to the Porcupine caribou herd.” Congress recognized Canada’s shared interest in the health of the Arctic Refuge, and the Department of Interior should not proceed with evaluating whether and how to offer leases in the coastal plain without meaningful consultation with the Government of Canada.

In accordance with PCHCA and ANILCA, the BLM should consult with the Canadian Government on issues pertinent to the health of the Porcupine Caribou herd and other Arctic Refuge wildlife. The BLM should request input and evidence from multiple levels of Federal, Territorial and Indigenous Governments within Canada during the drafting of the EIS. The BLM should also give special attention to submissions by individual Canadians, many of whom hold expertise on the Porcupine caribou herd and other relevant issues.

## **5. Migratory birds connect Canadians to the Coastal Plain of the Arctic National Wildlife Refuge.**

The Coastal Plain of the Arctic National Wildlife Refuge is the breeding ground to over sixty species of birds (FWS, 2010), including the endangered Spectacled Eider (*Somateria fischeri*). In addition to obligations under the Endangered Species Act of 1973 and Migratory Bird Treaty Act of 1918, the EIS should consider the impacts of the proposed oil and gas leasing program on bird species that overwinter in and/or migrate through Canada. In particular, the EIS should include input from Canadian scientists on the potential impacts of the proposed oil and gas leasing program on the Buff-breasted Sandpiper (*Tryngites subruficollis*), Red-necked Phalarope (*Phalaropus lobatus*) and Short-eared Owl (*Asio flammeus*), bird species listed under Canada’s Species at Risk Act.

There are numerous ways that that oil and gas activities on the Coastal Plain may negatively impact breeding birds. The EIS should assess how noise pollution from oil and gas-related activities may interfere with courtship and territorial vocalizations. The EIS should address how

foods and other attractants associated with anthropogenic activities may increase the densities of predators and opportunists such as Arctic foxes and Common Ravens, which in turn may elevate the risk of depredation on bird nests and chicks. The EIS should study how oil and gas-related activities may dissuade birds from foraging or nesting in certain habitats, increase the stress levels experienced by birds, and disturb incubation behaviours. The EIS should also consider how oil and gas activities within the breeding grounds of migratory bird species may exacerbate the cumulative impacts of disturbances already experienced along migratory routes and in winter habitats. The EIS should evaluate these and other ways that oil and gas activities may adversely impact birds, and consult with experts on Arctic bird ecology on the full range of potential impacts. Further, the EIS should consider the economic and aesthetic values of coastal plain-breeding and staging bird species to Canadian tour operators, birdwatchers, photographers and hunters.

## **6. Oil and gas activities on the coastal plain could elevate greenhouse gas emissions and exacerbate the impacts of climate change.**

As outlined in the U.S.-Canada Joint Statement on Climate, Energy, and Arctic Leadership of 2016, our respective governments “resolve that the United States and Canada must and will play a leadership role internationally in the low carbon global economy over the coming decades, including through science-based steps to protect the Arctic and its peoples. Canada and the U.S. will continue to respect and promote the rights of Indigenous peoples in all climate change decision making.” The EIS should evaluate the proposed oil and gas leasing program against bilateral pledges to reduce greenhouse gas emissions and safeguard Arctic communities from the impacts of climate change.

Many Canadians are already exposed to the direct and indirect effects of climate change. Communities in the Canadian Arctic are especially vulnerable, experiencing impacts such as changing ice dynamics, changes to wildlife patterns, infrastructure damage from thawing permafrost, and increased flooding and erosion of coastal and estuarine communities (Ford & Smit, 2004).

Climate change has also had substantial adverse effects within southern Canada. For instance, climate change contributed to record-setting infestations of pine bark beetles in Western Canada, which killed approximately 675 million cubic metres of wood in British Columbia from 1998-2009 (Kurz et al., 2008; Natural Resources Canada, 2017). Climate change is also an exacerbating factor in wildfire risk and is believed to have been responsible for a doubling of the surface area burned in the Western United States over the past three decades (Abatzoglou & Williams, 2016). Wildfires also had an enormous toll on Canada. In 2016 a wildfire destroyed much of Fort McMurray, while severe fires throughout the summer of 2017 caused \$562 million in damages in British Columbia alone (Tzembelicos et al., 2018).

In order to achieve global efforts to limit global mean temperature rise to 2 °C, approximately eighty percent of worldwide fossil fuel reserves must remain unburned (Leaton, 2012). According to the authors of a prominent study published in *Nature*, “development of resources in the Arctic and any increase in unconventional oil production are incommensurate with efforts to

limit average global warming to 2 °C” (McGlade & Ekins, 2015, pp. 187). The proposed oil and gas leasing program in the Arctic National Wildlife Refuge could therefore be irreconcilable with effective policies to address climate change.

The EIS should fully account for and assess the upstream and downstream greenhouse gas emissions scenarios associated with the proposed oil and gas leasing program in the Arctic National Wildlife Refuge. This emissions evaluation should address how the oil and gas activities in the Arctic Refuge could impact state or federal initiatives to reduce greenhouse gas emissions. The EIS should consult the best available science to evaluate how these potential oil and gas activities could interfere with efforts to limit the global mean temperature rise to 2 °C. Further, the EIS should evaluate the current and projected climate change impacts experienced within Canada, and assess the degree to which the proposed oil and gas leasing program could exacerbate the underlying climate crisis.

### **7. Polar bears may be threatened by oil and gas activities on the Coastal Plain.**

The Agreement on the Conservation of Polar Bears of 1973 outlines measures to be taken by the Arctic states to conserve polar bear populations. Article II of the treaty states “[e]ach Contracting Party shall take appropriate action to protect the ecosystems of which polar bears are a part, with special attention to habitat components such as denning and feeding sites and migration patterns, and shall manage polar bear populations in accordance with sound conservation practices based on the best available scientific data.” Oil and gas activities in the Coastal Plain of the Arctic Refuge may severely infringe upon the United States’ obligations to preserve ecosystems critical to polar bears. Activities associated with the proposed oil and gas development may disturb bear dens and interfere with movements of bears along the Beaufort Sea coast. The improper disposal of food and waste may acclimatize polar bears to human settlements, and may result in the destruction of problem bears. The EIS should analyze the impacts of seismic activities, roads, noise pollution, air traffic, waste disposal, infrastructure and other oil and gas related activities on polar bears and their prey.

As article IX of ACPB outlines, “[t]he Contracting Parties shall continue to consult with one another with the object of giving further protection to polar bears.” ACPB recognizes the importance of cooperation between Arctic states in the conservation of polar bears. In accordance with this spirit, the Bureau of Land Management should consult with scientists, policy makers and Indigenous peoples from the nations of the Arctic on the potential impacts of Coastal Plain oil and gas activities on polar bear populations. The Bureau should make special efforts to engage with Canada, as polar bear populations within the western Beaufort Sea region of Canada may be directly impacted by oil and gas activities in adjacent habitats.

### **8. Oil and gas activities may threaten the shared marine life of the Beaufort Sea.**

The proposed oil and gas activities on the coastal plain of the Arctic Refuge would fall within 150 miles of the Canadian border, and would occur in close proximity to the Beaufort Sea. Prevailing near-shore currents in the Beaufort Sea flow east (Nikolopoulos et al., 2009), meaning that the Canadian waters could be under immediate threat from pollution of the Beaufort Sea.

The Sea is home to the endangered ringed seal; as well as polar bears and bowhead whales: both endangered in the United States and listed under the Species at Risk Act in Canada.

The EIS should analyze all onshore and offshore activities that may result in the release of pollutants into the Beaufort Sea ecosystem; such as increased shipping along the Beaufort Sea coastline, the construction of any new ports on this coastline or the enhancement of existing facilities in Kaktovik, and potential pollution of streams and rivers that feed the Beaufort Sea.

The EIS should consider the transboundary impacts of the proposed oil and gas leasing program on Canadian waters, on marine life within Canada, and Indigenous communities of the Beaufort Sea. The EIS should assess the potential for bioaccumulation and biomagnification of pollutants through marine trophic webs, with particular emphasis on important subsistence species such as Arctic char, seals and belugas. The EIS should consult with Canadian scientists, governments and Indigenous communities on the full breadth of potential transboundary impacts.

### **9. Oil and gas-related pollution may negatively affect air quality in Canada.**

The proposed oil and gas activities would take place within one hundred and fifty miles of Canada. The Arctic is highly vulnerable to airborne pollutants which are known to travel substantial distances from point sources and preferentially precipitate into Arctic environments. The EIS should evaluate the extent of possible air pollution associated with the proposed oil and gas activities, assess potential dispersal of pollutants into Canadian air, and assess the potential precipitation of pollutants into Canadian environments. The EIS should identify which communities within Canada may be impacted, and the corresponding health-related issues that may arise. The EIS should also evaluate how pollutants released from potential oil and gas activities on the Coastal Plain may bioaccumulate and biomagnify within organisms inhabiting aquatic and marine ecosystems within Canada, with special regard to those species that are important for subsistence.

### **Appendix.**

Following is a list of specific questions that the EIS should address:

1. What measures would be put in place to ensure that proposed oil and gas activities will not negatively impact calving caribou? What monitoring and enforcement protocols would be used to ensure the effectiveness of these measures?
2. What are the projected increases in caribou calf mortality and annual declines in Porcupine caribou herd populations associated with different scenarios for oil and gas development on the Coastal Plain?
3. What is the ecological role played by the Porcupine caribou herd? What would the indirect effects of oil and gas drilling in the Coastal Plain on the predator and scavenger species that rely on Porcupine caribou?

4. How will the EIS analyze the effects of the proposed oil and gas activities on the Porcupine caribou herd, given that the ecological and geographical context of the Arctic Refuge Coastal Plain differs in key ways from that of other caribou habitats subject to industrial activities?
5. What would be the yearly per-family cost in Old Crow of replacing caribou meat with store-bought foods of equal nutrition?
6. What efforts has the Bureau of Land Management taken to seek the free, prior and informed consent of Indigenous communities over the proposed oil and gas activities within the Arctic Refuge?
7. What measures will the Bureau of Land Management take to comply with the United Nations Declaration on the Rights of Indigenous Peoples?
8. How will the appropriate agencies of the U.S. Government collect baseline data on ecological functioning, water and air quality, and environmental contamination within the Coastal Plain? What do these agencies view as the limits of acceptable change that may result from the proposed oil and gas activities?
9. What measures will be taken to ensure that effluent, petrochemicals and other pollutants will not be released into Coastal Plain environments? How will the appropriate agencies of the U.S. Government undertake monitoring and enforcement of harmful pollutants?
10. What is the “zone of influence” of oil and gas infrastructure on wildlife species within the Arctic Refuge? Zone of influence refers to the distance at which wildlife change their behaviour, habitat selection and distribution, relative to a disturbance. Zone of influence should be determined for roads, ice roads, gravel quarries, airstrips, pipelines, well, ports, and other oil and gas infrastructure. Zone of influence will differ depending on the wildlife species and should be determined for caribou, bears, muskox, nesting birds and other Arctic Refuge species.
11. What area of habitat for caribou, bears, muskox, nesting birds and other Arctic Refuge species falls within the zone of influence of anticipated oil and gas related infrastructure?
12. Using data on the nest site densities of the Coastal Plain’s bird species, please project the number of nests of each bird species that would be displaced by oil and gas infrastructure and the associated zones of influence.
13. What are the known nesting locations of Arctic Refuge bird species listed under Canada’s Species at Risk Act?
14. What measures has the Bureau of Land Management taken to consult with Canadian scientists, policy makers and Indigenous peoples over the impacts of oil and gas activities on bird species that migrate through Canada?



15. What are the movements of polar bears between the Coastal Plain of the Arctic National Wildlife Refuge and the western Beaufort Sea region of Canada? What are the potential impacts of oil and gas activities on the Coastal Plain on polar bear populations within Canada?
16. What steps has the Bureau of Land Management taken to consult with Canadian scientists, policy makers and Indigenous peoples over the impacts of oil and gas activities on polar bears?
17. Please provide greenhouse gas emissions projections corresponding to a range of scenarios for possible recoverable oil and gas reserves in the Arctic National Wildlife Refuge. Include in these projections a life cycle accounting of the potential upstream and downstream emissions associated with exploration, production and combustion of fossil fuel reserves.
18. What would be the implications from potential oil and gas activities in the Arctic Refuge on state, federal and global efforts to reduce greenhouse gas emissions?

## References.

Abatzoglou, J. T., & Williams, A. P. (2016). Impact of anthropogenic climate change on wildfire across western US forests. *Proceedings of the National Academy of Sciences*, 113(42), 11770-11775.

Bird List (2010). US Fish and Wildlife Service [Web Page.] Retrieved from: <https://www.fws.gov/refuge/arctic/birdlist.html>

COSEWIC. 2016. *COSEWIC assessment and status report on the Caribou Rangifer tarandus, Barren-ground population, in Canada*. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xiii + 123 pp.

CP (23 December, 2017). By The Numbers: A look at B.C.'s record setting 2017 wildfire season. Vancouver Sun. Retrieved from: <https://www.vancouversun.com>

Ford, J. D., & Smit, B. (2004). A framework for assessing the vulnerability of communities in the Canadian Arctic to risks associated with climate change. *Arctic*, 389-400.

Hammond, K. (2017). *The cost of healthy eating in Yukon 2017*. Whitehorse, Yukon: Yukon Anti-Poverty Coalition.

Kurz, W. A., Dymond, C. C., Stinson, G., Rampley, G. J., Neilson, E. T., Carroll, A. L., ... & Safranyik, L. (2008). Mountain pine beetle and forest carbon feedback to climate change. *Nature*, 452(7190), 987.

Leaton, J. (2012). *Unburnable carbon—Are the world's financial markets carrying a carbon bubble?* London: Carbon Tracker Initiative.

McGlade, C., & Ekins, P. (2015). The geographical distribution of fossil fuels unused when limiting global warming to 2°C. *Nature*, 517(7533), 187.

Natural Resources Canada (2017). Economic impacts [Web Page]. Retrieved from: <https://www.nrcan.gc.ca/forests/fire-insects-disturbances/pest-management/13387>

Nikolopoulos, A., Pickart, R. S., Fratantoni, P. S., Shimada, K., Torres, D. J., & Jones, E. P. (2009). The western Arctic boundary current at 152 °W: Structure, variability, and transport. *Deep Sea Research Part II: Topical Studies in Oceanography*, 56(17), 1164-1181.

Tzembelicos A., Erhardt, A., de Faye, B., Guy, B., Kent, C., Bedwell, C., ... & Siemens, W. (2018). *Addressing the new normal: 21st Century disaster management in British Columbia*. Vancouver, BC: BC Flood and Wildfire Review.