Parks Canada IR # 3
Preamble:
The extent to which marine wildlife and birds (those with a marine component) will actually show a response to disturbance, and the subsequent effects on these marine wildlife and birds (those with a marine component) from being displaced or alternatively not being able to be displaced, is dependent on how critical the habitat is to them, and on the availability of alternative habitat. Moreover, it is not just a space that defines suitable habitat, but numerous features that are often spatially unique and at times very rare. Furthermore, seasonality (timing) is often critical in and of itself. Additionally, habitat often can only support a limited number of animals and a limited amount of productivity; this is particularly true for northern environments. Finally, there is an energetic, physiological, reproduction, and survivability cost associated with being disturbed or displaced from habitat, be it 'habituated', 'temporarily', repeated temporarily, or permanently. Thus, the context of the habitat availability, suitability, productivity, and actual use is very important during this review. Unfortunately, this context appears to be missing from the EIS.

Request:

a) *In the context of each population's distribution range, migratory patterns, and seasonality, please provide information to indicate the importance of the habitat that is being used by marine wildlife and birds (those with a marine component) which may be disturbed or displaced by the project.*
b) *Please assess the availability and accessibility of alternative suitable habitat which is not already being occupied to full capacity.*
c) *Commensurately, please use this information to assess the impact on marine wildlife and birds (those with a marine component) not just to the extent of presence, absence, and mortalities, but also population health, and local and regional ecological integrity.*
d) *Similarly, please use this information to assess the health and stress of individual marine wildlife and birds (those with a marine component), even if they do 'habituate'. Also, please clarify the evidence and probability for 'habituation'*

BAFFINLAND RESPONSE

PC-3-a

There is limited information available on the importance of particular marine habitats for birds in the portion of the Lancaster Sound National Marine Conservation Area (NMCA) and Sirmilik National Park that interact with the project. Seabirds are expected to occur throughout the area. See Baffinland's response to Environment Canada information requests EC-2 to EC-5 for available information on marine birds.

PC-3-b

Marine birds are expected to occur in suitable habitat throughout the region. Information relating to "*availability and accessibility of alternative suitable habitat which is not already being occupied to full capacity*" is not available. There are no reasonable methods that we are aware of for determining the carrying capacity and saturation of marine and terrestrial habitats in the region. We are not aware a barriers to accessibility.

PC-3-c

Milne Inlet Port Facility will be used minimally during operation and decommissioning (refer to updated project description); therefore, the project will result in few interactions with marine birds seasonally using Lancaster Sound National Marine Conservation Area (NMCA) and Sirmilik National Park outside the initial stages of construction. The project footprint and activities, other than infrequent shipping of oversized equipment, will not interact with marine birds seasonally occurring within Lancaster Sound NMCA and Sirmilik National Park. Consequently, there is minimal project interaction with marine birds using nesting and foraging habitat. Any disturbance will be from rare events, be small in magnitude and be temporary; therefore, the project should not result in significant adverse effects to marine bird populations using Lancaster Sound NMCA and Sirmilik National Park. The project will not result in altering the presence, absence or mortality of marine birds in the region, and should heath or ecological integrity, and

PC-3-d

Marine birds are likely to partially habituate to the proposed marine shipping to Milne Inlet. Birds are more adaptable than most species to human disturbance. While birds may temporarily change behaviour, disturbances from shipping are unlikely to results in significant energetic costs to marine birds nesting in the region (Bisson et al. 2009).

References

Bisson, I.-A., L. K. Butler, T. J. Hayden, L. M. Romero, and M. C. Wikelski. 2009. No energetic cost of anthropogenic disturbance in a songbird. Proceedings of the Royal Society B-Biological Sciences 276:961–969.