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Comments for the Espoo report Phase 2 proposal - Mary River Project (08MN053)

WWF Denmark in Greenland is part of the pan-Arctic WWF network, working to secure populations of wildlife endemic to the Arctic in the wild, benefitting broader biodiversity conservation and the people who depend on them. Across the Arctic, we work with researchers and local knowledge holders to understand the impact of climate change on the distribution and behavior of marine mammals, to study the impacts of increased shipping in the Arctic and to promote governance and protection of important summering and wintering grounds, migration corridors etc.

The Arctic is getting louder

The retreat of sea ice and increasing shipping in the Arctic region is a conservation concern for WWF. A consequence is that the Arctic is getting louder. WWF has been engaged in the new analysis of underwater noise pollution from shipping in the Arctic (PAME, 2021¹). Based on data from 2013 and 2019, our analysis revealed hotspots of underwater noise in multiple regions, including the western section of Baffin Bay. Across several locations, underwater noise from shipping has increased, in the order of 5 – 15 dB from 2013 -2019. Excess noise levels of only 3 dB account for a reduction by 50% of acoustic communication ranges for marine mammals.

¹ <https://pame.is/projects/arctic-marine-shipping/underwater-noise-in-the-arctic>



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The change in underwater noise is dramatic: some parts of the Arctic are twice as loud today as they were in 2013. This is likely a change in marine soundscapes never experienced before. Given the long lifespans of many species Arctic marine mammals (>200 years for bowhead whales) these rapid changes in underwater noise levels will be experiences within the lifetime of individual animals and will require a level of adaptation that may not be possible.

We still know little about the impacts of shipping on marine life

Noting the concerns that researchers and local knowledge holders had about the negative transboundary impacts of increased shipping through Milne Inlet, Eclipse Sound and along the entire coast of West Greenland, WWF Denmark commissioned a report synthesizing available information about the impacts of shipping on six species native to Baffin Bay: narwhal, beluga, bowhead whale, walrus, ringed seal and beard seal (Schack & Haapaniemi, 2017)². We note that the report suggest very large noise detection ranges for the species in focus: an estimated 20 kilometer detection range for beluga in open water, 43 kilometers in ice-covered water, and a record-high detection range of 31 kilometers in open water and 75 kilometers in ice-covered water for walrus and ringed seal³.

We note that there is a significant overlap between the frequencies produced container ships and icebreakers and the known or likely hearing range of the marine mammals considered. This increases the likelihood of potential impacts of noise on e.g. behavior and stress hormone levels. Furthermore, there is significant frequency overlap between shipping noise and the underwater communication sounds produced by marine mammals and masking of communication signals is therefore a potential risk. Finally, there are still huge gaps in our knowledge about the hearing of Arctic marine mammals and also the impacts of noise.

Central Baffin Bay, Disko Bay and Store Hellefiskebanke are identified as particularly sensitive sea areas vulnerable to shipping. Central Baffin Bay is an important wintering and foraging ground for narwhals, and Disko Bay and Store Hellefiskebanke are important winter/spring foraging ground for beluga, narwhals, bowhead whales and beard seals, whelping grounds for bearded seals, and

²

http://d1qkbvpihpfr5.cloudfront.net/downloads/final_report_potential_impact_of_noise_from_shipping_on_key_species_of_marine_mammals_i_1.pdf

³ https://wwfint.awsassets.panda.org/downloads/WWF_gr%C3%B8nlandsk_plakat_TRYKFIL.pdf



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possible mating grounds for bowhead whales. Shipping could thus potentially affect a large number of individuals, at sensitive times for the species. The shipping route proposed by Baffinland in the early phases of the project, also cuts across or directly follows the spring and fall migration routes for belugas, narwhals, and bowhead whales with potential negative consequences. The recommendations from our work include routing to avoid shipping in sensitive areas at sensitive times of the year, shipping at low pace and keeping a close watch for marine mammals.

Comments for the Espoo report for Phase 2 proposal, Baffinland Mary River project

WWF Denmark concludes that the Espoo report for the Phase 2 proposal for the Mary River Project (the Espoo report) does not provide us with an adequate assessment on the transboundary impacts of the Phase 2 proposal of the Baffinland Mary River project.

- The narrow scope of the Espoo report does not provide the reader with an adequate assessment of the transboundary impacts of proposed Phase 2. The marine regional study area includes Milne Inlet, Eclipse Sound, and a small part of the Canadian section of Baffin Bay only. The report does not assess the impacts of shipping in Greenland waters nor the impacts of a proposed anchorage site in Store Hellefiskebanke.
- The proposal for Phase 2 activities will increase shipping; from July through to November we will see up to 176 voyages a year. WWF Denmark is concerned that the increased traffic will have detrimental impacts for species of marine mammals that are important to the marine ecosystem and to the well-being of communities in both Greenland and Nunavut. WWF Denmark notes that the Espoo report includes little information about the shipping route. No illustration of the proposed shipping route nor information/overlays with areas sensitive to shipping, important summering and wintering grounds, migration routes are given in the report.
- WWF Denmark is concerned that the project will have irreversible impacts on marine mammals that are important parts of the ecosystem and important to communities in both Greenland and Nunavut. Greenland Institute for Natural Resources conclude that: “The environmental impact of ship traffic in Milne Inlet and the transportation of iron ore through Baffin Bay may be a loss of parts of the whale and walrus populations, and this may reduce hunting opportunities in both Greenland and Canada. Overall, the transportation of the iron



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ore in the *Mary River* project must be considered one of the greatest threats to marine mammals in the Arctic - not least because history has shown that the possibilities to restore the situation are very limited” (Memo, Pinngortitaleriffik/GINR, 2020).

- From the above-mentioned memo we understand that Eclipse Sound, which Milne Inlet opens into, is home to 10% of the world’s population of narwhals. From research and local observations, we know that narwhals are incredibly noise sensitive. On the noise sensitivity of narwhals the memo reads: “Buzz activity [a sound that indicated food intake, made by many clicks in quick succession] is part of feeding and the impact of persistent noise pollution, such as the planned shipment of iron ore from Baffin Island, is likely to stop feeding in the area permanently. There is nothing to suggest that narwhal can get used to regular noise pollution, as it is known from the whales in the Saint Lawrence River” (Memo, Pinngortitaleriffik/GINR, 2020).
- The Espoo report also lacks information about fuel types used for the shipping activities. WWF Denmark notes that while heavy fuel oil is phased out by 2024, there is loophole allowing for the continued use of HFO through to 2029. HFO is a tar-like residue waste from the oil refining process and one of the world’s dirtiest and most polluting ship fuels. The combustion of HFO produces high levels of pollutants such as particulate matter, black carbon, sulphur oxide, nitrogen oxide which has been linked to an increased risk of heart and lung disease as well as premature death. Unfortunately cleaning the exhaust from burning of HFO with scrubbers have shown to be very ineffective. Black carbon is also a critical contributor to global warming.
- The Espoo report includes no information about contingency plans. WWF Denmark notes that Baffinland’s shipping activities brings a risk of accidental oil spills in waters that are of great importance for the fishing industry, tourism, and subsistence hunting activities. Just last year bulk carrier Golden Opal transporting iron ore through the Davis Strait had a total engine failure. The ship was towed for several weeks before arriving in Nuuk. Just after arrival a severe storm hit Greenland. Luckily, the ship was in safety in the Malene Bay just outside Nuuk, with the tow boat securing it together with the anchor during the storm. A catastrophic event could have happened if the ship ran aground pollution the Greenlandic coast with heavy fuel oil.



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The consultation is an example that international cooperation and agreements fails to effectively cover transborder pollution. Canadian authorities have not involved Greenland Government in the start-up of the Baffinland Mary River mine even if the project involves intensive shipping through Greenland waters. The current, and late, involvement has been on the initiative of Greenland with several inquiries sent. The consultation of a phase 2 of the project, with a doubling of production and shipping, thus, according to the company, does not provide an opportunity to change already obtained permits, and that the company refuses to conduct further studies on cross-border negative impacts. Therefore, WWF Denmark find that the Espoo report and subsequent consultation does not meet the standards of an Espoo consultation.

Canadian authorities seem reluctant to require further research into the transboundary impacts of the project from Baffinland. WWF Denmark stress, that since the project includes intensive shipping and even anchorage in Greenland waters a comprehensive study of the cross-boarder impacts should have been part of the initial impact assessment requirements, further research should be completed before any new permissions are granted.

On behalf of WWF Denmark

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