Written Submission No. 10

2016 Draft Nunavut Land Use Plan

Proposed Land Use Designation:

Community Areas of Interest – Caribou Migration

To: The Nunavut Planning Commission

From: The Qikiqtaaluk Wildlife Board (QWB), and
the Hunters and Trappers Organization (HTO) of Arctic Bay, Pond Inlet, Hall Beach and Igloolik

Background Information:

Caribou is a keystone species for the maintenance of Inuit culture and well-being, as well as for the northern ecosystem. Arctic tundra Caribou are known to go through long-term cycles, with each cycle lasting up to the entire lifetime of an elder (Ferguson et al. 1998). During these cycles, there are decades when caribou are in low abundance and very sensitive to disturbance by humans. Unlike large populations of caribou, small ones are not as resilient to disturbance, loss of habitat, and human development that may separate them from their seasonal habitats. The protection of migration corridors of caribou during these decades is critically important, or the populations may never return to their former abundance in future, and their natural cycles could be lost.

The 2016 draft Nunavut Land Use Plan (NLUP) claimed that there is insufficient information for caribou-specific land use designations, except on the mainland of Nunavut. The QWB believes that this is not true, given the extensive Inuit Qaujimajatuqangit (IQ) that was shared with NPC and governments by Inuit of Qikiqtaaluk communities in the past, and scientific peer-reviewed papers already published about caribou in Qikiqtaaluk Region.

As the 2016 draft NLUP implies, caribou migration corridors are used annually even when abundance is low, and are essential for providing caribou access to their calving, post-calving, rutting, wintering and other seasonal areas. Especially when caribou are least resilient during decades of low abundance, development and/or disturbance along these corridors present a high risk of preventing caribou access to their calving and post-calving areas, and their best available wintering areas.

Impacts of exploration and development cannot be effectively mitigated in any of these critical areas during decades when their abundance or density is low. These realities are well known through IQ (although science may lag behind), and the impacts of development may be most severe for caribou populations that depend on Arctic tundra year-round.

Many Inuit know these corridors well. In some places, corridors used by caribou during snow-free months are obvious from trails well rutted into the land by decades and probably centuries of use by migrating caribou. However, corridors across some terrain leave little if any physical evidence (e.g., over bedrock and where caribou can spread out and move over broad routes). Caribou corridors in spring and early winter across snow leave little evidence on the land. Whether the land is marked by these trails or not, Inuit know where many of these corridors are.

Tundra caribou use these corridors during most seasons, except during Ukiaq and Ukiuq when they move relatively little. Inuit harvest caribou along these corridors during many parts of the year. Nevertheless, we believe that caribou are most susceptible to the impacts of human disturbance and development during Upingaksaaq, Aujaq and Ukiaksaaq. During Upingaksaaq, pregnant females are migrating to places where they will give birth. During Aujaq, females are nursing and otherwise caring for their calves. In Ukiaksaaq, caribou are both mating and searching for suitable wintering areas where the food will be most accessible through the snow, in preparation for Ukiaq and Ukiuq. During Aujaq and Ukiaksaaq, Inuit harvest caribou along these known routes for valued caribou hides and food. This harvesting is governed by traditional customs well known to local Inuit in order to minimize disturbance to the caribou.

Special Note: Natsilik caribou on southern Baffin Island migrate seasonally between 250 and 450 km each way. Their migration corridors are well known to Inuit, and these are largely within the Multiple Values Area of West Central Baffin Island (see WS-11). The known caribou harvesting, calving and post-calving, migration corridors and sea-ice crossing areas on Melville Peninsula are all interconnected (see also maps for WS-07, 08 and 09 for a complete picture). Construction and operation of wind turbines for electrical power generation have been found to negatively impact reindeer, which are far more habituated to humans. Inuit expect such infrastructure near sea-ice crossings would have similar or greater negative impacts on tundra caribou in Qikiqtaaluk Region.

Source of information: Inuit Qaujimajatuqangit.

Proposed Designation: Special Management Area

Proposed Restrictions:

Prohibited Uses: The following uses are prohibited:

- Hydro-electrical and related infrastructure;
- Linear Infrastructure; and
- Related research except Non-Exploitive Scientific Research

Conditions:

- During Aujaq and Ukiaksaaq, closed to any activities related to:
  - Mineral Exploration and Production;
  - Oil and Gas Exploration and Production; and
  - Quarries.
- Long-term projects and activities related to any of the above land uses must shut-down during Aujaq and Ukiaksaaq.
- Wind turbines for electrical generation must be at least 5 km from caribou migration corridors, and must be positioned so they are not visible from caribou migration corridors.
- Any project in Nunavut that would violate these conditions is prohibited.

Proposed Boundaries of the Community Areas of Interest - Caribou Migration:

These areas are approximately 10-km wide zones along the major caribou routes known to Inuit; however, some Corridors may be wider where more than one major route run parallel or at angles to each other. Caribou actually utilize wider areas in many places or may use other routes, but the mapped areas are the most important Corridors. See the attached maps and the associated shp files.

References:

Ferguson, M.A.D., R.G. Williamson, and F. Messier. 1998. Inuit knowledge of long-term changes in a population of arctic tundra caribou. Arctic 51: 201-219.

Skarin A. and M. Alam. 2017. Reindeer habitat use in relation to two small wind farms, during preconstruction, construction, and operation. Ecol. Evol.7: 3870–3882.

Skarin, A., C. Nellemann, L. Rönnegård, P. Sandström and H. Lundqvist. 2015. Wind farm construction impacts reindeer migration and movement corridors. Landscape Ecol. 30: 1527–1540.

Skarin A, P. Sandström and M. Alam. 2018. Out of sight of wind turbines—Reindeer response to wind farms in operation. Ecol Evol. 8: 9906–9919.

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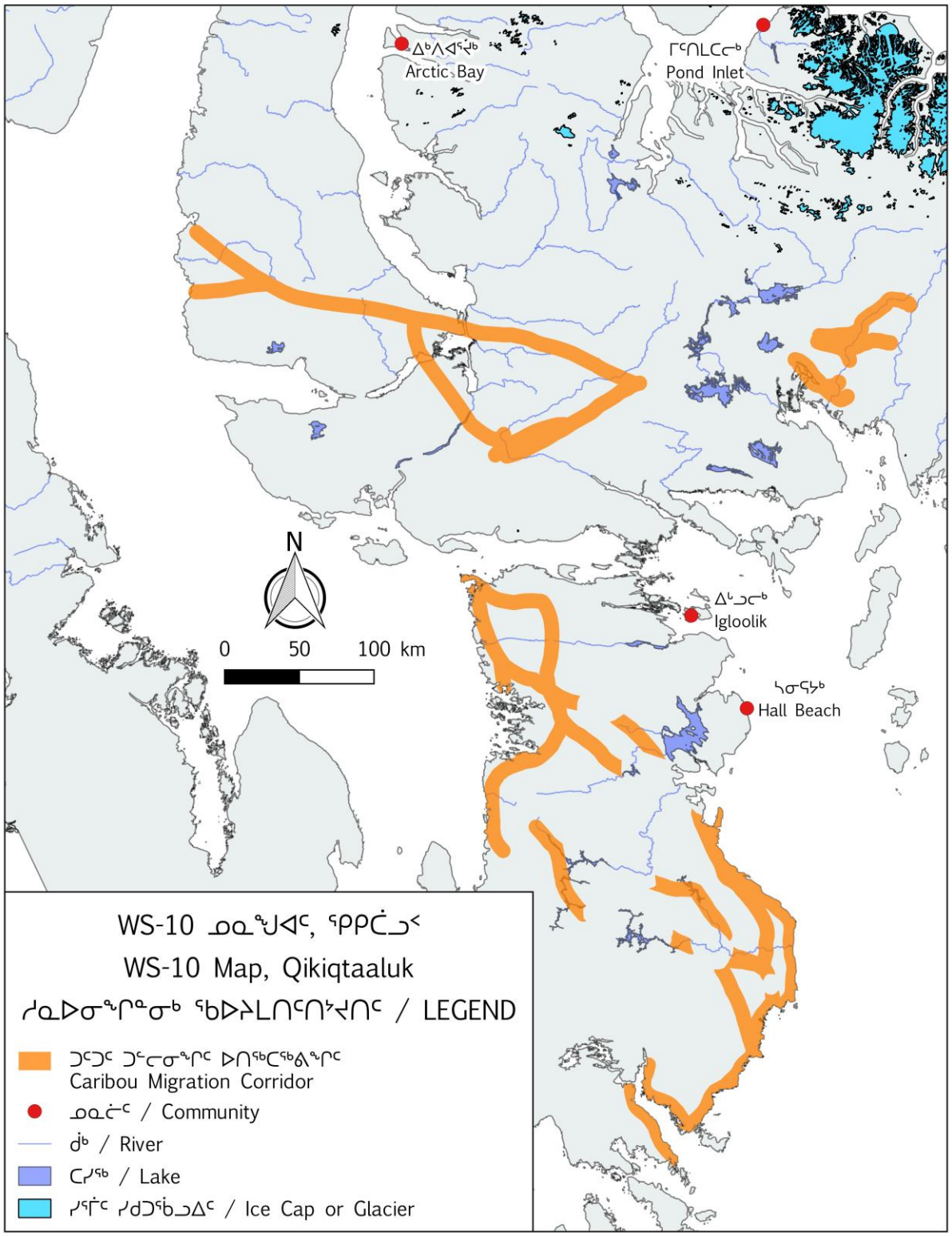
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WS-10 Map, Qikiqtaaluk
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Caribou Migration Corridor
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ᑯᒃ / River
ᑕᓴᖅ / Lake
ᓴᖅᑭᑦ ᓴᐃᑐᖅᓗᐃᑦ / Ice Cap or Glacier