

GN-01 Impact of Road Development on Caribou	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Missing Information Needed to Determine Environmental Effects
References	<ul style="list-style-type: none"> • NIRB Notice of Screening for NIRB File No.: 20AN020 “Access Trail Project Chesterfield Inlet” Project Proposal • NIRB Public Notice of Screening and Comment Request for NIRB File No.: 20AN020 “Access Trail Project Chesterfield Inlet” Project • Dynamic Ocean Consulting Ltd. (2023) Access Road Project Nunavut Impact Review Board Application • Dyer, S.J., O’Neill, J.P., Wasel, S.M., & Boutin, S. (2002) Quantifying barrier effects of roads and seismic lines on movements of female woodland caribou in northeastern Alberta. <i>Canadian Journal of Zoology</i>, 80(5), 839-845. https://doi.org/10.1139/z02-060 • Leblond, M., Dussault, C., & Ouellet, J-P. (2013) Avoidance of roads by large herbivores and its relation to disturbance intensity. <i>Journal of Zoology</i>, 289(1), 32-40. https://doi.org/10.1111/j.1469-7998.2012.00959.x • Blagdon, D. & Johnson, C.J. (2021) Short term, but high risk of predation for endangered mountain caribou during seasonal migration. <i>Biodiversity Conservation</i>, 30(3), 719-739. https://doi.org/10.1007/s10531-021-02114-w • Plante, S., Dussault, C., & Côté, S.D. (2017) Landscape attributes explain migratory caribou vulnerability to sport hunting. <i>Journal of Wildlife Management</i>, 81(2), 238–247. https://doi.org/10.1002/jwmg.21203 • Smith, A. & Johnson, C.J. (2023) Why didn’t the caribou (<i>Rangifer tarandus groenlandicus</i>) cross the winter road? The effect of industrial traffic on the road-crossing decisions of caribou. <i>Biodiversity and Conservation</i>, 32, 2943-2959. https://doi.org/10.1007/s10531-023-02637-4
CONCERNS	

The Project Proposal contains insufficient information, which impedes the Government of Nunavut's (GN's) accurate assessment and review of the Projects potential environmental effects.

The Project is located in the ranges of both the Lorillard herd and the Qamanirjuaq herd of barren-ground caribou. Linear infrastructure such as roads and trails are sources of direct habitat loss or degradation and can act as semipermeable barriers to caribou movements depending on variables such as traffic intensity (Dyer et al. 2002; Leblond et al. 2013). Additionally, roads and trails facilitate hunting by both humans and other predators, increasing mortality risk for caribou located near the linear infrastructure (Blagdon and Johnson 2021; Plante et al. 2017; Smith and Johnson, 2023).

In Table 1-1: Access Trail Road Descriptions, the lengths of the three access trails are provided (Dynamic Ocean Consulting Ltd., 2023). However, the GN notes that the widths of the proposed trails are not provided. This information is key in understanding the extent of direct habitat loss or degradation associated with the Project.

In Table 4-2: Potential Environmental and Social Impacts, it is stated “[t]here will be minimal changes to traffic patterns due to the Project. All access trail routes will be constructed outside of municipal boundaries and thus will not impact existing roads or traffic patterns” (Dynamic Ocean Consulting Ltd., 2023). In the same table it reads, “...once operational, trails will provide improved access to the land for subsistence hunting” (Dynamic Ocean consulting Ltd., 2023). The GN notes that traffic patterns are subject to change given the creation of new trails that will facilitate new traffic in the form of both quarry activities (e.g., regular use by “rock trucks”) and subsistence hunting.

The Project Purpose reads “[d]ue to limited gravel within Municipal boundary, the Hamlet is looking into other potential aggregate sites to develop and maintain gravel production; this is the Municipality of Chesterfield Inlet's goal and objective.” (Dynamic Ocean Consulting Ltd., 2023). However, the GN notes that Access Trail 1, as presented in Figure 1-1, does not seem to have a corresponding aggregate site delineated.

RECOMMENDATIONS

The GN recommends that the Proponent provide the widths of the three proposed access trails.

The GN recommends that the Proponent reevaluate its conclusion with respect to changes to traffic patterns provided in Table 4-2 to better capture the potential effects of increased traffic on terrestrial wildlife.

The GN recommends that the missing delineation of the aggregate site should be provided. If there is no additional aggregate site to be provided, additional justification or information should be provided with respect to Access Trail 1.

GN-02: Aggregate Sources	
Departments	Economic Development & Transportation Community & Government Services
Organization	Government of Nunavut
Subject/Topic	Alignment with existing aggregate sources/access routes
References	<p>NIRB Notice of Screening for Chesterfield Inlet’s “Access Trail Project Chesterfield Inlet” project proposal, NIRB File No. 20AN020</p> <p>NIRB Application forms – 20AN020</p> <p>Revised NIRB Application-IA1E, 2022 Nunavut Feasibility Study for Small Craft Harbour near Chesterfield Inlet, NIRB File No. 22YN033</p> <p>Kivalliq Hydro-Fibre Link project, Nukik Corporation, https://www.nukik.ca/kivalliq-hydro-fibre-link/</p>
CONCERNS	
<p>The Government of Nunavut (GN) recognizes that access to aggregate resources is essential to infrastructure and community development. The GN seeks to reduce duplication and ensure that there is alignment of various projects and interests in developing aggregate sources so that access routes can be optimized to serve the foreseeable long-term needs.</p> <p>The GN is aware of additional existing and future locations of aggregate sites that have been studied to support community development proposals or other infrastructure projects. For example, Fisheries and Oceans Canada submitted an application to NIRB for the 2022 Nunavut Feasibility Study for Small Craft Harbour near Chesterfield Inlet (NIRB File No. 22YN033) where studies for quarries and haul road locations were planned. Regionally, the proposed access routes should be aligned with the Kivalliq Hydro-Fibre Link project and associated quarry sites. The proposed project should also allow for future connection to the Kivalliq All-Season road to Chesterfield Inlet, incorporating alignment consistent with the GN Kivalliq Roads technical study where appropriate.</p> <p>These are not discussed in this proposal. The GN recommends that the Proponent provide assurances that the proposed access routes incorporate any existing studies to ensure that their project incorporates all the latest data from various federal and territorial sources. Additionally, the Proponent should avoid any duplication and align proposed routes with existing or reasonably foreseeable aggregate sources and their access roads.</p> <p>The GN recommends that the Proponent contact the GN to access relevant information. Additionally, providing maps and other information to GN-CGS on the road alignment will</p>	

support future community planning projects and to ensure future community plans incorporate the extent of the proposed road into the municipal maps.

RECOMMENDATIONS

The GN recommends:

1. The Proponent provide assurance that the alignment of the proposed access routes, including the engineering and geological work supporting their project, incorporates the latest data available from various federal and territorial sources or studies on other aggregate sources.
2. The Proponent provide assurance that the proposed access routes align with existing or reasonably foreseeable aggregate sources and their associated access roads to avoid duplication and to optimize routes.
3. The Proponent provide updated maps and other relevant information to GN-CGS on the road alignment to support future community planning projects and to ensure future Community Plans incorporate the extent of the proponent roads into the Municipal Maps.

ADDITIONAL COMMENTS

N/A

GN-03: Employment

Department	Economic Development & Transportation
Organization	Government of Nunavut
Subject/Topic	Local Employment
References	<p>NIRB Notice of Screening for Chesterfield Inlet’s “Access Trail Project Chesterfield Inlet” project proposal, NIRB File No. 20AN020</p> <p>NIRB Application forms – 20AN020</p> <p>230912-20AN020-Project Application: Table 5-1 Mitigation Commitments for the Project</p>

CONCERNS

The GN encourages the Proponent to employ local Inuit and utilize Inuit businesses as much as possible, providing opportunities for training and business contracts. The GN expects

that, when and where possible, Inuit and Inuit businesses are prioritized and are given the opportunity to benefit from this project.

In their Project Application, the Proponent references the Treasury Board Directive on Government Contracts Including Real Property Leases, in the Nunavut Settlement Area and “will aim to maximize participation of Inuit labour, training and Inuit owned businesses on the Project.” (No. ETB1, Table 5-1, pg. 25) The Nunavummi Nangminiqagtunik Ikajuuti (NNI) is the Government of Nunavut’s preferential procurement policy, fulfilling the government’s obligations to incentivize Inuit businesses and labour and building Nunavut’s economy through preference for local business and labour. Where applicable, the NNI policy and rules must be adhered to.

RECOMMENDATIONS

The GN recommends:

1. The Proponent ensure that their contractors prioritize local hiring where practicable and support local businesses so that they have access to competitions for contracts.
2. The Proponent fully understand their requirements under the territorial NNI policy and ensure their contractors adhere to the Policy where applicable.

ADDITIONAL COMMENTS

N/A

GN-04: Heritage Resources

Department	Culture and Heritage
Organization	Government of Nunavut
Subject/Topic	Heritage Resources
References	NIRB Notice of Screening for Chesterfield Inlet’s “Access Trail Project Chesterfield Inlet” project proposal, NIRB File No. 20AN020 NIRB Application forms – 20AN020

CONCERNS

The Proponent intends to build road infrastructure to support the development of a series of gravel extraction sites for community maintenance and development activities. The road infrastructure will extend approximately 30 km west of Chesterfield Inlet, outside of the municipal boundaries. Three main access trail routes to new quarries are being considered. The program is planned to take place from June 2024 to June 2034. The activities include: the construction of three access roads to new quarries; the use of heavy construction equipment; the exploitation of new quarries; the use of storage areas.

A search of the Nunavut Site Data Base indicates that there are currently thirty-nine (39) archaeological sites located in the vicinity of the project area. Specifically, a cluster of twenty-four (24) sites is located within the municipality boundaries of Chesterfield Inlet. A second cluster including fifteen (15) sites is found around Josephine Lake at the southwestern end of "Access Trail 2". This does not preclude the presence of unidentified sites or cultural features as to this day no systematic archaeological reconnaissance has been conducted in the area between the two clusters of sites mentioned above confirming that this area constitutes a non-surveyed enclave.

The project area may potentially yield significant archaeological/cultural resources as it geographically overlaps the Lorillard and Qamanirjuaq herd ranges. With its interconnecting system of rivers and lakes and extensive network of hunting and travelling routes the area was and still is being extensively used by the Kivalliq Inuit. The Josephine River and Lake areas constitute a significant part of the cultural identity of the Kivalliq communities.

Thus, the Department of Culture and Heritage considers that there are reasonable grounds to believe that there could be sites of archaeological/cultural significance on the lands affected by the current project (NA Article 33.5.12; 33.5.13).

RECOMMENDATIONS

On the basis that the presence and/or the potential for the presence or archaeological/heritage resources is high, the Department of Culture and Heritage recommends an archaeological program be initiated in advance of any land disturbance activities to determine if archeological/heritage sites are in potential conflict with proposed activities and to identify appropriate mitigation measures.

Specifically, the GN-CH recommends the following:

1. A qualified archaeologist must apply for a Class 2 permit with the Department of Culture and Heritage;
2. The Proponent conduct an Archaeological Impact Assessment of any areas subject to ground disturbance activities both within and outside municipality boundaries including access roads, quarry locations and any proposed storage areas
3. During construction no activities shall be conducted in the vicinity (50 m buffer zone) of any archaeological/historical sites. If archaeological sites or features are encountered, activities should immediately be interrupted and moved away from this location. Each site encountered needs to be recorded and reported to the Government of Nunavut Territorial Archaeology Office.

All archaeological and palaeontological sites in Nunavut are protected under the Nunavut Act. The Proponent must understand that it is their responsibility to ensure that no heritage resource sites are disturbed in the course of their activities. No person shall alter, or otherwise disturb an archaeological site, or remove any artifact from an archaeological site without the proper authorizations.

The building of inuksuit is not recommended.

ADDITIONAL COMMENTS

The Department of CH is supportive of the project pending a Class 2 archaeological permit.