



Final Technical Review
of the 2016
Draft Nunavut Land Use Plan

Prepared by: **THE KIVALLIQ INUIT ASSOCIATION**

Prepared For: **NUNAVUT PLANNING COMMISSION**

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1. Introduction

The KivIA, represents the Inuit beneficiaries of the Kivalliq Region, at the territorial and regional levels, and supports sustainable economic development opportunities for Inuit beneficiaries. The DNLUP was developed by the Nunavut Planning Commission (NPC) as mandated for the Nunavut Settlement Area under Article 11 of the Nunavut Land Claims Agreement (NLCA). The technical review completed by the Kivalliq Inuit Association (KivIA) was carried out at a high level with the mandate of:

- 1) assessing whether the KivIA's comments and concerns outlined during the review of the 2014 Draft Nunavut Land Use Plan (2014 DNLUP) had been addressed, and
- 2) identifying any issues or concerns in the 2016 DNLUP that might deter its implementation without further revision.

This mandate was meant to ensure that the scope of the proposed 2016 DNLUP was compatible with the KivIA's mandate and responsibilities to the Inuit beneficiaries of the Kivalliq Region.

The KivIA retained a team of consultants to complete a review of the most recent DNLUP. This team consisted of Hutchinson Environmental Sciences Ltd. (HESL), Aurora Wildlife Research (Aurora) and GeoVector Management Inc. (Geovector).

The Land Use Planning, as addressed by the DNLUP and the NPC, is only one step of the permitting process for any proposed project in the Kivalliq. Permits for activities on IOLs are also reviewed by the KivIA, and projects which may have larger scale or residual environmental impacts are subject to the Environmental Assessment process through the Nunavut Impact Review Board. This consideration has, in part, informed our review of the 2016 DNLUP.

This report uses the following land use designations, as taken from the DNLUP (Sect. 1.7.5):

***“Protected Areas** prohibit certain specific land uses that are incompatible with environmental and cultural values and may identify Conditions to guide land use and/or Information on VECs and VSECs. The intent of PAs is to support environmental protection and/or cultural priorities, including wildlife conservation, protection, and management...*

***Special Management Areas** may restrict access to certain specific uses, or prohibit incompatible uses, and may identify Conditions to guide land use and/or Information on VECs and VSECs. Compared to PAs, SMAs provide more flexible management of areas of environmental or cultural importance. SMAs also provide management for areas of economic potential as well as areas with existing land uses. The intent of SMAs is to support the identified value of the area,*

*Areas that have been identified for their potential to support a variety of land uses are managed through a **Mixed Use** Land Use Designation... The intent of Mixed Use Land Use Designations is to support a variety of opportunities and land use activities.”*



2. Concerns with Overall Approach of the DNLUP

We continue to have several concerns with the overall approach taken in the DNLUP. In particular, insufficient explanation is provided on the decision-making process guiding land use designations, and no framework exists for the periodic review and evaluation of how the DNLUP is performing over time nor the opportunity to revise aspects of the plan or land use designations as supporting information changes.

The DNLUP fails to explain the rationale used to establish the various land use designations throughout the territory. Furthermore, while text has been added to explain how Projects or Project Proposals that overlap with multiple land use designations are to be managed, the guidance is confusing and potentially contradictory, and omits potential project activities (e.g., Oil and Gas Potential).

The DNLUP acknowledges that there are gaps in information, knowledge and expert advice that have restricted the consideration of land use options, but that this absence of information cannot impede the land use planning process. While it is recognized that the development of the DNLUP cannot wait until all information gaps have been filled, the DNLUP should strive to incorporate the best available information on an ongoing basis. The DNLUP, however, does not explain how new information will be considered and integrated into the Plan in a timely and consistent manner. For example, while a full review will be *considered* at least every five years, there is no specific requirement for such a review to occur within that timeframe. A detailed discussion of what factors might trigger either a comprehensive or partial review of the Plan is lacking. Similarly, the conditions governing the Plan Amendment decision-making process have not been provided.

The lack of clarity on the decision-making process structuring the DNLUP, as well as the absence of a framework to govern regular mandated review and update of the Plan, creates considerable uncertainty with regard to land use planning options in the territory. It is recommended that the DNLUP:

- ❖ provide rationale and relevant background information used to establish the land use designations, including a discussion of the rules applied to categorize areas under different designations, and to delineate the size and shape of areas;
- ❖ clarify whether new information can change land use designations (and the process for doing so);
- ❖ explain in greater detail how overlapping land use designations are currently managed and potential conflicts avoided;
- ❖ include a summary of data/knowledge gaps identified in its development, as well as a strategy for addressing them in future updates;
- ❖ clarify what triggers (e.g., IQ, community feedback, scientific information, resource discoveries) will trigger comprehensive and partial reviews of the Plan, and indicate what conditions will govern the Plan Amendment decision-making process; and
- ❖ establish a mandated and regular process for review and update to reflect the most recent information and current needs of the territory.

3. Caribou Protection Measures (Appendix A)

The 2016 DNLUP assigns Protected Area designation to all caribou core calving, key access corridors, and post-calving areas and freshwater caribou crossings; sea-ice crossings are designated Special Management Areas; rutting areas and migration corridors are designated Mixed Use Areas; and other seasonal ranges are described as Valued Ecosystem Components (VEC). NPC listed the organizations and their support for the four options to protect caribou habitat. The respective land use conditions for these categories are relatively broad as the draft plan provides few details, especially for the Mixed Use and VEC categories (Options 3 and 4).

In its May 2016 submission of the technical review of the 2014 DNLUP to NPC, the KivIA offered 10 recommendations regarding management of caribou habitat under the DNLUP. The KivIA's review emphasized that management of caribou must be predicated on Inuit Qaujimajatuqangit (IQ) and scientific knowledge for caribou ecology and vulnerability to disturbance, while balancing between caribou protection and economic development. The KivIA has a number of follow-up questions and recommendations related specifically to core caribou calving areas and linear infrastructure corridors (LICs). Additional detail is available in Appendix A.

3.1 Core Calving Areas

The KivIA agrees that core calving areas should be afforded full Protected Area designation. However, the KivIA remains concerned that NPC's application of land use options is reliant on a single mapping technique (Government of Nunavut's (GN) kernel analysis of collared caribou locations) and it remains unclear if and how IQ was incorporated into the mapping. The KivIA would expect there would be documentation of IQ for mapping the core calving and seasonal caribou habitats, and recommends there should be an independent technical review of the spatial analyses to evaluate the uncertainty in their boundaries.

3.2 Nunavut-Manitoba Road/Hydro Corridor and Caribou

One of NPC's stated goals is to achieve the economic well-being of communities. Transportation and communication services and corridors are a key pillar of economic development for residents of the Kivalliq Region, key to accessing resources and building healthier communities. By extending the spatial extent of Protected Area designations for caribou, especially for the extensive tracts of land west of Arviat, Whale Cove and Rankin Inlet, and stating that linear infrastructure is not permitted within Protected Areas, the 2016 DNLUP appears to have eliminated the proposed Nunavut (Kivalliq)-Manitoba Road and Hydro Corridor, and could well hamper economic development in the region. However, the sections related to transportation and other linear corridors appear complicated and confusing; the KivIA would appreciate clarification in this regard.

NTI and the RIAs all support a Special Management Area designation for the Nunavut-Manitoba Road and Hydro corridor in the DNLUP with appropriate terms and conditions to protect wildlife and their habitat and other values such as cultural sites. The greatly expanded area now proposed to be under Protected Area designation (and hence closed to any linear infrastructure) could severely hamper economic development in the Kivalliq Region. The KivIA respectfully submits that seasonal application of Mobile Caribou Conservation Measures, including effective monitoring and rigorous application of mitigation



strategies during crucial risk periods (including closure of the road to traffic when new-born calves are present) could effectively mitigate potential impacts to caribou. The KivIA again respectfully recommends to NPC that proposed linear corridors be incorporated into Schedule A of the DNLUP in the form of a separate Mixed Use and Special Management Area based on the following:

- i) Those portions of the road that coincide with caribou post-calving areas should be incorporated into the DNLUP as Special Management Areas similar to hydro-electric generation opportunities along the Thelon and Quoiich Rivers (2016 DNLUP under Alternative Energy Sources in section 4.3 and in Appendix A, Table 1; sites 80-82).
- ii) The remaining portions of the road should be designated as Mixed Use.

Mitigation of potential impacts resulting from the road would be achieved by relying upon appropriate components of the regulatory process in Nunavut. The primary goal of using either the Special Management or Mixed Use Areas would be to ensure all future work and development along the NMLIC would conform to the final NLUP.

3.3 Mobile Caribou Conservation Measures

Although the, Kitikmeot Inuit Association (KitIA) and KivIA have all requested Mobile Measures in some form to manage caribou ranges, NPC does not recommend the use of Mobile Measures nor offer a rationale for not including them. The KivIA would like clarification from NPC whether Mobile Measures will be part of the conditions to be applied to Special Management Areas, Mixed Use Areas and VEC Areas.

4. Mineral Potential (Appendix B)

4.1 Mineral Potential

In the late 1980's Inuit negotiators and their advisors (McPherson 2003) established the importance of acquiring mineral rights to land since the Crown had traditionally sub-ordinated the surface holder in the development process. It was known that substantial blocks of mineral rights were going to be granted in the land-selection phase of negotiation, and Inuit became determined to make the best of it by hiring mineral advisors. These mineral advisors prepared a mineral inventory to help guide these deliberations. The ultimate goal of the Inuit negotiators was to gain the right to manage these mineral resources which would allow for the devolution of Crown resources to the new territory of Nunavut and help assure the economic viability of this new territory for future generations of Inuit. These negotiations had the Inuit give up 80% of the Nunavut land area to the Crown in order to gain full access and ownership to the remaining 20% of the area. The majority of this 20% contained the mineral endowment known at that time within Nunavut. This resulted in the Inuit being one of the largest freehold owners of mineral rights in Canada. There was an equitable sharing of how these lands were split between the three regions of Nunavut. Based on the 2016 DNLUP the KivIA will be impacted much more than other regions, with the loss of 46% of its IOLs which were negotiated for their mineral rights. Additional detail is available in Appendix B.



Using only the mainland portion of the Kivalliq Region (422,324 square kilometres) the recommendations of the 2016 Draft NLUP will eliminate 40% of this area from any form of economic development. These eliminated areas also contain 46% of the IOLs within the Kivalliq Region. This is a significant loss and will have a significant negative impact on future generations of Inuit, and the rest of Canada. The current 2016 DNLUP has created a “no entry system of land management” related to mineral endowment and mineral potential within Nunavut and Canada. This approach by the 2016 DNLUP is very limiting given that it has used more geographic data and less geoscience data.

A suggestion would be to use the terms “Mineral Endowment” and “Mineral Potential”. Based on these definitions the IOLs should be evaluated based on their mineral endowment instead of their mineral potential. It is recommended that the NPC use these two terms to better understand the impact of expanding Protected Areas over Areas of Mineral Endowment (i.e., IOLs):

4.1.1 Mineral Endowment

Mineral endowment is the aggregate of the known mineral deposits and occurrences in a region based on historic exploration and development. In addition, the diversity of mineral deposit terranes for metals, non-metals and energy are a reflection of the endowment of minerals in the earth’s crust for each region under consideration.

4.1.2 Mineral Potential

Mineral potential is the probability of the occurrence of undiscovered mineral deposits or mineralization in an area that has similar geoscience characteristics as areas that currently host known mineral deposits. The factors affecting economic viability are not considered in this definition because the geoscience data available are still insufficient to determine the sizes and grades of the mineralization required to form an economic mineral deposit. Mineral potential is determined by how well the existing geoscience data fit established mineral deposit models and the existing knowledge about mineralization in a particular area. Also, the amount or level of geoscience, historic or modern, for areas needs to be taken into consideration. For example, areas with either limited or very dated geoscience information would be considered to have low mineral potential but could end up hosting economic deposits.

New economic mineral deposits will remain undiscovered as long as mineral exploration is limited to either an inventory of known deposits or review of modern geoscience data through the lens of a “mineral exploration.” Examples of new discoveries that used this review approach in the Canadian north since the creation of Nunavut are:

1. Diamond discoveries in the western Arctic,
2. Peregrine Diamonds recent discovery of diamonds on Baffin Island,
3. AEM’s recent discovery of gold in the Whale Tail/Amaruq area, and
4. North Quest’s recent discovery of gold west of Whale Cove.

The KivA concerns are related mainly to the lack of consensus on what uses should be prohibited or restricted within areas of mineral endowment and mineral potential. This reflects the minimal use of existing public domain geoscience data, which limited the areas that were defined as having high mineral endowment and potential. Additional detail is available in Appendix B. The KivA proposes that the following options for refinement to the 2016 DNLUP be implemented:



1. The mineral endowment and potential outside areas of existing rights on Crown Lands and all IOLs should have more research to better categorize the location of low to high mineral potential corridors.
2. The DNLUP should be revised to recognize that IOLs were selected predominantly for their mineral endowment (McPherson 2003).
3. All IOL parcels should be designated "Mixed Use".
4. A clearly defined process that outlines how flexible the 2016 DNLUP will be in changing land use designation boundaries and definitions as new information becomes available going forward.
5. Evaluation of the future mineral potential must be viewed through both the "mineral exploration and mining industry lens." This is best achieved by compiling all the current public geoscience into a single database. Once in place, a systematic review of these data using existing mineral deposit and mineral potential models should be completed.
6. The geoscience data in the public domain must be given much more consideration when defining areas of low to high mineral potential.

4.2 Existing Rights

Based on the 2016 DNLUP the Kivalliq Region will be impacted much more than other regions, with the loss of 46% of its IOLs, which were negotiated for their mineral rights. In addition, if using only the 422,324 square kilometres that comprise the mainland portion of the Kivalliq Region (ie. does not include Hudson Bay or the islands within) the recommendations of the 2016 DNLUP will eliminate 40% of this area from any form of economic development. This is a significant loss and will have a significant negative impact on future generations of Inuit and also the rest of Canada.

Given the history of how the Inuit negotiators and their advisors (McPherson 2003) established the importance of acquiring mineral rights to their lands (IOLs), the elimination of 46% of the IOL's, in addition to the combined loss of 40% (ie. IOL plus Crown), within the Kivalliq Region will have a significant negative socio-economic impact on this region. In addition, there is no agreement between the statements in the 2016 Draft NLUP of "recognizing existing rights" and the land use plan proposed.

4.3 Transboundary Considerations

The KivIA concerns relate to the potential negative economic and social impacts of Protected and Special Management Areas that share a common boundary between Nunavut and the adjoining jurisdictions of Manitoba, the NWT and Saskatchewan in areas of high mineral potential corridors on both IOLs and Crown Land.

The current options for refinement in the DNLUP do not appear to address these concerns because there is no clear process as to how "general guidance" or "retaining references to identify priorities" would be done or even what these terms mean.

The KivIA proposes that the following options for refinement to the DNLUP be implemented:

1. More research to better define the potential negative economic and social impacts associated with Protected and Special Management Areas in the adjoining jurisdictions.



2. More research to better determine if Mixed Use, Mineral Endowment and High Mineral Potential designations should be expanded while Protected and Special Management Area designations are contracted along the common boundaries between Nunavut and the adjoining jurisdictions.
3. More inclusive data from all public sources of geoscientific information.
4. Interpretation and a larger scale view of the geoscience data once it is captured.
5. Consultation with all transboundary jurisdictions on the potential negative economic and social impacts that could arise in these jurisdictions from the 2016 DNLUP. The ultimate goal here should be signed Memorandums of Understanding (MOU's) with all the adjoining jurisdictions.

5. Linear Infrastructure Corridors (Appendix C)

The KivIa and the Governments of Canada, Nunavut and Manitoba through the Hudson Bay Regional Roundtable and the Canada-Manitoba Economic Development Partnership Agreement see implementation of the proposed new road and power corridor (i.e., a Linear Infrastructure Corridor or LIC), as a means of supporting the objectives of healthy communities, unity and self-reliance. The proposed road is expected to enhance opportunities for resource development such as mining and tourism; benefit employment, small business development and standard of living; and reduce the cost of transporting people and goods between the Kivalliq Region and urban centres in Manitoba. Additional detail is available in Appendix C.

The scoping scale technical reports completed to date have demonstrated that sufficient and robust information exists to permit inclusion of a defined land use designation for the LIC into Schedule A and Table 1 of the 2016 DNLUP. There are several cases of inconsistent and contradictory information in the 2016 DNLUP, which does not allow any LIC to conform.

The implementation of the LIC is limited by the greatly expanded area (Figure 1) now proposed to be under Protected Area designation thereby closed to any LIC or development. This represents a significant barrier to advancing the LIC, or any LIC, now or in the future which could severely hamper economic development in the Kivalliq Region. It is recommended that the NPC eliminate these inconsistencies in order that the LIC's will conform to the DNLUP. Exclusion of the LIC from the 2016 DNLUP will have significant negative impacts on the future of economic development in the Kivalliq Region, Nunavut and Canada.

In particular, the proposed LIC location is illustrated in Schedule B of the 2016 DNLUP, but is not specifically included in the body of the DNLUP. The potential implementation of the LIC is limited by:

1. The absence of a separate land use designation in Schedule A, and
2. Conflicting or ambiguous guidance regarding LICs, particularly highways, in the text of the Plan.

Therefore, it is recommended that the LIC be incorporated into Schedule A of the DNLUP in the form of a separate Mixed Use and Special Management Area based on the following:

- i) Those portions of the road that coincide with caribou post-calving areas should be incorporated into the DNLUP as Special Management Areas similar to hydro-electric generation opportunities along the Thelon and Quoiich Rivers (2016 DNLUP under Alternative Energy Sources in section 4.3 and in Appendix A, Table 1; sites 80-82).
- ii) The remaining portions of the road should be designated as Mixed Use.

Mitigation of potential impacts resulting from the road would be achieved by relying upon appropriate components of the regulatory process in Nunavut. The primary goal of using either the Special



Management or Mixed Use Areas would be to ensure all future work and development along the LIC would conform to the final NLUP.

6. Conclusions

This review of the 2016 DNLUP has highlighted several shortcomings with respect to:

- ❖ the KivIA's comments and concerns on the 2014 DNLUP which have not been addressed in the 2016 DNLUP;
- ❖ the decision-making process for establishing land use designations has not been explained;
- ❖ supporting data are not consistently included or referenced in the DNLUP;
- ❖ there is no clear requirement for systematic review and update to incorporate new findings into the DNLUP;
- ❖ inconsistent guidance is provided on project conformity;
- ❖ negative impacts on mineral potential due to land use designations have not been considered; and
- ❖ land use designations do not allow for the potential for linear infrastructure development in the form of roads/highways.

7. Recommendations

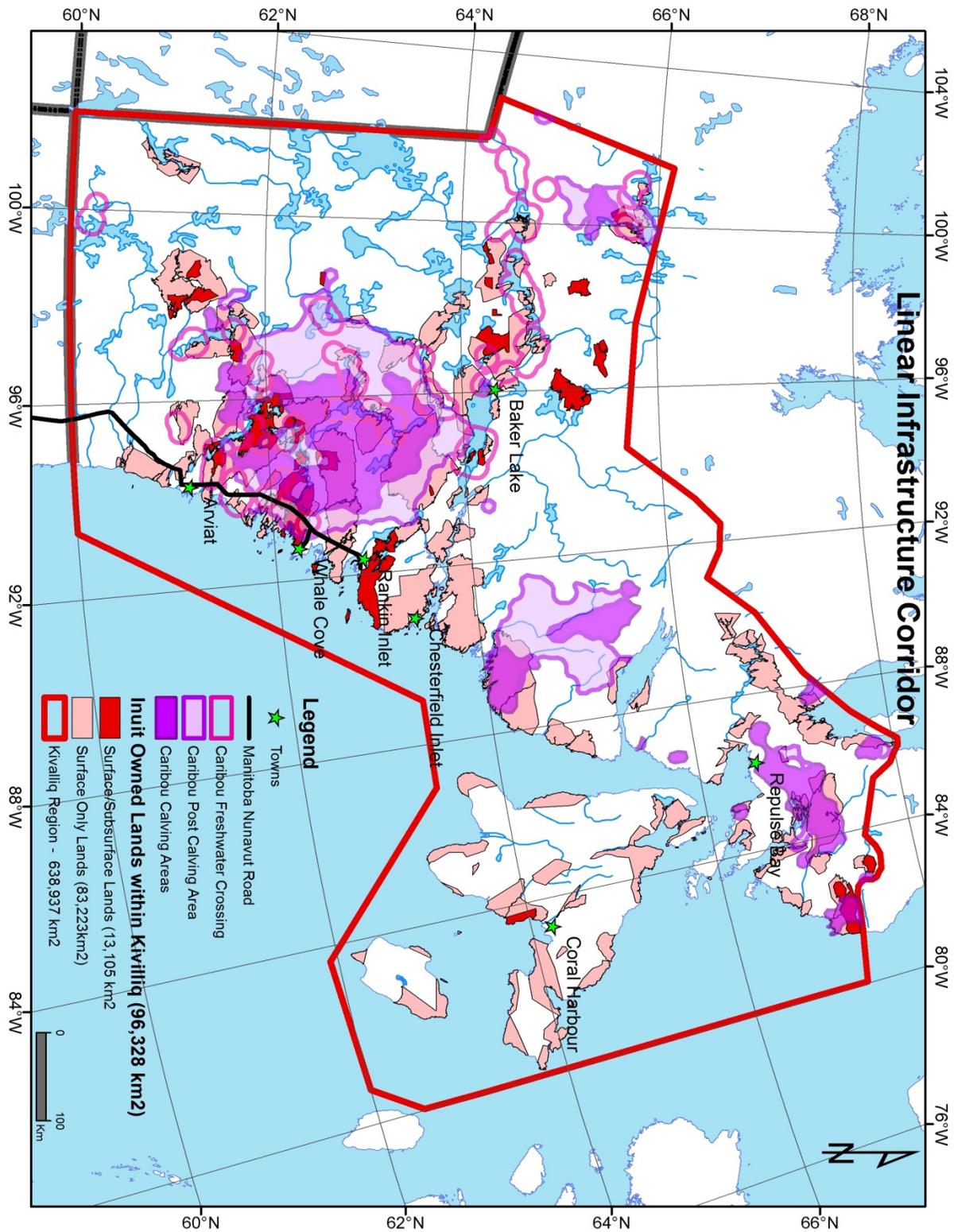
The KivIA recommends that the 2016 DNLUP not be adopted in its current form. The recommendations provided in this report and in the appended documents should be adopted or the NPC should provide justification as to why these recommendations have been disregarded.

8. References

McPherson, R., 2003. *New Owners in Their Own Land – Minerals and Inuit Land Claims*. University of Calgary Press – Northern Lights Series. 305p.



Figure 1: Kivalliq Region Protected Areas and LIC



Appendix A

Caribou Protection Measures – Aurora Wildlife Research



Appendix B

Mineral Potential – GeoVector Management Inc.



Appendix C

Linear Infrastructure Corridors – GeoVector Management Inc.

