

October 8, 2021

Nunavut Planning Commission  
Sharon Ehaloak and Chairperson Andrew Nakashuk  
PO Box 1797  
Iqaluit, NU X0A 0H0

**Re: Agnico Eagle's Comments on the 2021 Draft Nunavut Land Use Plan and 2021 Options and Recommendations**

Dear Ms. Ehaloak and Chairperson Nakashuk,

Agnico Eagle Mines Limited (Agnico Eagle) is writing to provide comments on the 2021 Draft Nunavut Land Use Plan (2021 DNLUP) and supporting Options and Recommendations document (2021 O&R), in response to Nunavut Planning Commission (NPC)'s notice of July 23, 2021. Agnico Eagle has prepared this document based on internal collaboration between its Meadowbank Complex and its Meliadine and Hope Bay mines, as well as its regional exploration group.

**1. Summary of Key Concerns**

Agnico Eagle appreciates the challenges associated with NPC's mandate, and the scope and difficulty of the task that has been delegated to them. We continue to support the development of a Nunavut Land Use Plan, in accordance with the Nunavut Agreement. We also sincerely appreciate the commitment and efforts of NPC staff, who have made themselves available to us to discuss the 2021 DNLUP during September 2021.

We also recognize the many years of work that have resulted in the 2021 DNLUP, and there are many aspects of the current draft that we believe can provide a foundation for a plan that can help support responsible sustainable development for the years to come.

However, respectfully, the 2021 DNLUP requires much more collaborative work and information before it should be brought forward to a public hearing stage, revised, and presented to the signatories. In this written submission, Agnico Eagle has identified several procedural and substantive concerns with the 2021 DNLUP. Agnico Eagle has identified significant information gaps, particularly given the age of some of the information shared.

As the NPC has identified that the central purpose of the public hearings is to focus on the recommendations in the 2021 DNLUP based on the best information available at this time, we have focused the bulk of this submission on providing updated technical information for NPC's consideration and suggested revisions to certain land use designations within the Kivalliq and Kitikmeot regions of

relevance to our operations and exploration areas. We have also flagged some areas of more general high-level concern.

In summary, Agnico Eagle's key concerns identified at this time relate to:

- NPC has suggested that one of their key goals with the 2021 DNLUP is to enhance certainty and predictability for proponents seeking to develop in Nunavut. Our concern with this draft is that it is lacking in clarity and certainty, it is overly complex, and appears to undermine the overall intended approach of the Nunavut Agreement with respect to Institutions of Public Government that were all established to collaborate to ensure any development that proceeds in Nunavut does so in an environmentally and socioeconomically protective manner. The regulatory authorities have a comprehensive, coordinated, and effective process that proponents must follow before they are permitted to undertake a project proposal.
- The need for a more robust pre-hearing NPC process allowing for adequate time for review, comment, technical meetings/workshops, and information requests.
- Grandparenting of the right to explore, develop, produce, and have feasible access to existing mineral claims as of the date the NLUP is approved and certainty that activities to be taken in respect of existing mineral claims are not restricted as per the conditions defined in Option 1 and Option 2 of the 2021 DNLUP.
- The designation of lands within the Kitikmeot and Kivalliq regions for caribou as Option 1 Limited Use land includes numerous prohibitions on mineral exploration and production and linear infrastructure and is based on erroneous assumptions or incomplete/out-of-date information. There is a proven history of effective caribou mitigations in Nunavut and in the North, that have been implemented at mineral exploration, production and associated infrastructure that should be given due weight and consideration by NPC.
- The geographic based prohibition approach reflected in the 2021 DNLUP does not give due weight and consideration to the selection of Inuit Owned Lands for mineral development by Inuit during the negotiation of the Nunavut Agreement. Agnico Eagle fully supports this concern expressed by Nunavut Tunngavik Inc. (NTI), Kivalliq Inuit Association (KivIA), and Kitikmeot Inuit Association (KitIA) on numerous occasions throughout the land use planning process that Inuit landowners should not be restricted by the land use plan in managing development of Inuit Owned Lands in the manner they see as consistent with Inuit values and goals for these areas.
- Land use designations creating unduly restrictive conditions in Community Drinking Water Supply Watersheds, despite the existence of a rigorous regulatory system to protect the integrity of Nunavut freshwater sources administered by the Nunavut Water Board (NWB), and established by the Nunavut Agreement and the *Nunavut Waters and Surface Rights Tribunal Act*.

Appendix A provides further detail outlining Agnico Eagle's review, comments, and concerns based on the initial review of the 2021 DNLUP and 2021 O&R. Additional technical input has been provided by our external third-party expert on wildlife from ERM (Greg Sharam, Phd) which is attached to this letter as Appendix B.

An absence of comments on any section of the 2021 DNLUP and/or the 2021 O&R should not be taken as agreement. The 2021 DNLUP is a complex document and based on the limited time for public review and comment, additional significant issues may yet be identified as all parties continue to review. Agnico Eagle may comment on additional topics in its oral submissions at the public hearings, and in its final written submission.

## **2. Conclusion**

Agnico Eagle appreciates the opportunity to provide comments related to the 2021 DNLUP. As outlined in our submission, more process steps and time are required to ensure a proper evaluation of the 2021 DNLUP and the underlying technical information.

Overall, there are two key points that Agnico Eagle believes should be considered in a revised DNLUP. First, the 2021 DNLUP should be revised to reflect the fundamental understanding shared with us by NPC staff that existing mineral claims will be formally acknowledged and reflected as existing rights within the NLUP and not subject to the prohibitions included in the NLUP. Second, a revised NLUP that primarily focuses on Option 4 lands, rather than Option 1 and 2 lands, would be a first-generation NLUP that is most reflective of the current evidence and would likely gain broader consensus among Inuit, the signatories and stakeholders.

We feel that significant work is required before the 2021 DNLUP should be advanced to public hearings. The upcoming public hearings should therefore be rescheduled and we request NPC define a schedule as per recommendations provided in Appendix A for the entire process so all parties can effectively comment, such as the Government of Nunavut (GN) and Government of Canada (GOC) who were under caretaker mode due to election processes that overlap NPC's process steps unfolding between August-October 2021. The current proposed compressed schedule, which does not include scheduled public hearings for all regions in Nunavut, appears not procedurally fair taking into account all factors and is not reflective of a collaborative effort for this important process and topic.

As the contributor of 25% of the GDP of Nunavut, the largest miner and private sector employer in Nunavut, and since 2007 have invested more than \$7 billion in Nunavut, Agnico Eagle is committed to a long-term presence in Nunavut and to supporting its well-being through its operations. We are grateful for the opportunity to work with Inuit and to help support responsible exploration and mining on both Inuit Owned and Crown lands. Again, Agnico Eagle wishes to recognize the hard work of NPC, its staff and all parties to date that has resulted in the current draft. As we have noted, there is significant work to be done to move the draft forward but we are committed to continued engagement in the NPC process and

are confident that working together, a balanced and fair plan can be produced that reflects Inuit goals and priorities and can support truly sustainable development for generations to come.

Sincerely,



Jamie Quesnel  
Director, Permitting & Regulatory Affairs  
Agnico Eagle Mines Limited

**Attachments:**

Appendix A: Agnico Eagle Review Comments to 2021 DNLUP and 2021 O&R  
Appendix B: Third-party High-level Review of 2021 DNLUP

**Appendix A: Agnico Eagle Review Comments to 2021 DNLUP and 2021 O&R**

<b>Theme:</b>	<b>Procedural Concern</b>	<b>Rec No.:</b>	<b>2021 DNLUP-01</b>
<b>Re:</b>	<b>Consultation</b>		

### **Background:**

As a general comment, in our view there has not been adequate consultation on the 2021 DNLUP to date for the NPC to consider this draft final enough to proceed to carry out further public hearings.

As an example, communities have not been individually visited to present an overview of the changes between the 2016 DNLUP and the 2021 DNLUP, to verify that the interpretation of the information shared is correct. Likewise, this opportunity has not been provided to industry. Verification is an essential consultation step.

In our view, it is also essential that communities be presented with full context for potential consequences from prohibiting development, particularly given the limited value that geographic boundary based prohibitions for caribou can provide. Based on our review of the available community reports that have been posted to the NPC public registry, there was limited to no discussion on the topic of potential for negative economic impacts during the NPC's previous direct engagements. The jobs and other economic supports that Agnico Eagle provides in the Kitikmeot and Kivalliq regions are fundamental to supporting community well-being.

Nunavut, as the rest of Canada, has the ambition to build a strong and diversified economy. The substantial economic contribution of mining – the revenues we generate for Inuit organizations, federal and territorial governments, the Inuit businesses created to support our activities, the people we employ, train, and educate – provide the foundation upon which a strong, diversified economy is built.

Agnico Eagle plans to be in Nunavut for the long-term and we are determined to help build the social and economic infrastructure that is so vital to the North's future.

Here are a few numbers demonstrating our financial contribution to Nunavut:

- We are the largest miner and largest private sector employer in Nunavut.
- In 2020, we directly and indirectly employed 2,940 full-time positions for employees and contractors – 378 of which were filled by Inuit.
- In 2020, more than \$200 million was paid in salaries for our Meliadine and Meadowbank operations. Of this, more than \$25 million was paid to Inuit employees.
- In 2020, the amounts paid to the Kivalliq communities in donations and sponsorships totalled more than \$1.4 million.
- Agnico Eagle is the largest road builder and owner in Nunavut, with over 200 kilometers developed to date at a cost of over \$200 million.
- Since 2007, we have invested over \$7 billion in Nunavut.

- Agnico Eagle now represents more than 25% of Nunavut's GDP.
- In 2020, Agnico Eagle's Meadowbank and Meliadine mines contributed approximately \$27.5 million in taxes, royalties, fees, and compensation payments in Nunavut, both to the GN and to Inuit organizations representing Inuit under the Nunavut Agreement.
- Agnico Eagle acquired TMAC Resources in February of this year. In 2020, TMAC paid approximately \$9.5 million in taxes, royalties, fees, and compensation payments both to the GN and to Inuit organizations representing Inuit under the Nunavut Agreement.
- We also have four separate Inuit Impact and Benefit Agreements (IIBA) with the KivIA and, following our recent acquisition of TMAC Resources Inc., one IIBA with the KitIA. Since 2007, we have paid more than \$109 million in royalties and fees to both NTI and the KivIA.
- Royalty payments for gold extracted are paid directly to NTI, the designated Inuit organization overseeing mineral development on Inuit-owned lands, and the payment of royalties pursuant to the IIBAs is issued by Agnico Eagle directly to the KivIA and the KitIA.

The serious negative economic impacts that could arise from the implementation of the 2021 DNLUP as written would result in a plan that directly contradicts one of the primary purposes that the Nunavut Agreement sets for a land use plan:

11.3.2 The purpose of a land use plan shall be to protect and promote the existing and future well being of the residents and communities of the Nunavut Settlement Area, taking into account the interest of all Canadians, and to protect, and where necessary, to restore the environmental integrity of the Nunavut Settlement Area.

**Agnico Eagle's Recommendation:**

Agnico Eagle suggests that NPC should be following a prescribed process that includes consultation, information requests, technical meetings/workshops, and responses to information requests and technical comments prior to a public hearing. We have some suggested details in Recommendation 2021 DNLUP-02 of this document. In the meantime, we suggest NPC undertake the following additional steps in relation to the 2021 DNLUP:

- Defer the public hearings.
- Provide an extended comment period for interested parties to provide written feedback on the 2021 O&R and 2021 DNLUP, request participants to confirm accuracy of the summaries included therein and ask if there is any further information that is available. Parties could be invited to ask questions in writing and provide any written information requests. The timeline for submissions that has been established to date (i.e., July 8 to October 8) is not adequate to complete this step. NPC should also respond to the initial round of comments in writing.
- Conduct comprehensive in person (or virtual if needed) engagement with Agnico Eagle and any other interested proponent, following receipt of written submissions. Comprehensive levels of engagement should also occur with Inuit, Inuit Organizations and the communities, as well as

other stakeholders. Records of these engagements (including detailed meeting minutes) should be placed on the public registry for transparency.

- NPC should then provide a written response to the submissions.
- Only after these steps are complete should NPC determine if the 2021 DNLUP is ready to be brought forward to the hearing stage, or whether it should be further revised.



<b>Theme:</b>	<b>Procedural Concern</b>	<b>Rec No.:</b>	<b>2021 DNLUP-02</b>
<b>Re:</b>	<b>Timeline</b>		

### **Background:**

The time currently granted to parties to review and comment these materials may be procedurally unfair and in our view, falls short of the standard for public consultations on a plan of this importance and consequence for the future of Nunavut.

The time suggested by NPC for review is also not consistent with its own process to date.

- As an example, the 2012 DNLUP and 2012 O&R were released in September 2012, and were subject to public comment through written submissions and through in-person community meetings in all Nunavut communities and affected Nunavik and Dënesųliné communities for a period of 17 months.
- The 2014 DNLUP and 2014 O&R were released in June 2014, and were subject to public comment and four in person technical meetings for a period of almost 2 years (21 months).
- The 2016 DNLUP and 2016 O&R were released in June 2016 and were first subject to a 7 month written comment period and in-person community meetings. Public hearings on the 2016 DNLUP were not held until the public hearing in Iqaluit in March 2017. From release to public hearing, the total time elapsed was a period of 9 months.
- NPC staff indicated at the Nunavut Mining Symposium in 2018 that a draft Nunavut Land Use Plan would not be circulated until at least 2022. It was therefore a surprise when the NPC issued a draft for comment in July 2021 and announced that hearings would be completed on the plan by the end of 2021.

In contrast, the 103 page 2021 DNLUP and the 576 page 2021 O&R were released on July 8, 2021. Comments on the 2021 DNLUP and 2021 O&R are due to NPC by October 8, 2021, which means these crucial documents will only have the benefit of written review and public comment for a period of just 3 months. A “corrected” version of the 2021 DNLUP was uploaded on September 1 that included substantive changes, and it is possible that many parties are not commenting on the most up to date version of the document. No public or community meetings were organized by NPC during the comment period, except the NPC press conference which did not provide a detailed overview of the 2021 DNLUP. Interested parties are also being asked to be prepared to participate in public hearings starting in November 2021 – only 4 months since NPC first released the 2021 DNLUP. This timeline is without precedent in previous NPC processes.

It is also worth noting that of this review period, 2 months unfolded over the summer months when Inuit are on the land and many Nunavut residents, government and proponent personnel were on vacation, as well as a federal and territorial election period when governments were in caretaker mode.

Review of the 2021 DNLUP and 2021 O&R should not be rushed. More work is required to build public, government signatory and Inuit organization confidence in the plan, as well as the technical information that supports the plan. Inuit organizations, communities, Institutions of Public Government, Hunters and Trappers Organizations (HTOs), government parties and proponents all require adequate time to fully consider the implications of the 2021 DNLUP and 2021 O&R, ask questions of NPC, and form their positions. The timeline imposed by NPC also does not provide sufficient opportunity for collaboration between the parties, to better coordinate their information and come to consensus recommendations.

**Agnico Eagle's Recommendation:**

Agnico Eagle formally requests that the NPC significantly extend the written comment period and reschedule the public hearings on a time period that is adequate to give a fair opportunity for all stakeholders to participate and give validated comments to NPC, complete additional workshops on the new information from January 2020, and carry out additional consultation to ensure all information is validated by all parties. Agnico Eagle feels that this recent information should have a rigorous technical review based on many components including effects and economics before it goes to a public hearing.

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Theme:	Procedural Concern	Rec No.:	2021 DNLUP-03
Re:	Language		

**Background:**

To date, NPC has not released a copy of either the 2021 DNLUP or the 2021 O&R Document in French or Inuktitut.

The only translated documents that have been posted to the registry for public comment are as follows:

- A two page news release;
- A three page backgrounder;
- Bilingual copies of 2021 DNLUP Maps A1, A2, and A3; and
- Executive Summary available in French and Inuktitut.

**Agnico Eagle's Recommendation:**

Inuit and the Francophone community require full information to be able to make informed submissions on the 2021 DNLUP, and are entitled to access these materials in the language they feel most comfortable communicating in. The lack of availability of translated materials should be taken into consideration by NPC in extending the relevant timelines.

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Theme:	Procedural Concern	Rec No.:	2021 DNLUP-04
Re:	Functionality		

**Background:**

The documents that have been provided (in particular, the guidance maps) are not functional from a technological perspective. They continually “crash” desktop computers when accessed. We are told this because the maps are too large, not flattened, missing fonts, and there seems to be errors in the way that they are produced. As such it is challenging at this time to identify potential conflicts with our planned and proposed land uses. We cannot be confident that we have identified all areas of conflict at this time, and reserve the right to make further submissions should conflicts be identified.

**Agnico Eagle’s Recommendation:**

NPC should ensure that the materials are functional and easily accessible by users with lower internet bandwidth.

Theme:	Key Substantive Concerns	Rec No.:	2021 DNLUP-05
Re:	Existing Rights		

### Background:

Agnico Eagle continues to be of the view that grandparenting must be granted to mineral tenure holders to explore and develop those tenures, and to have reasonable and feasible access routes to those tenures. Previous submissions by the NWT & Nunavut Chamber of Mines and the Government of Canada have taken consistent similar positions. This view is consistent with the expectation created by the “free entry” Crown mineral tenure system in place in Nunavut, as well as the Inuit Owned Land mineral tenure system managed by NTI. Mineral tenure holders invest considerable financial and other resources into exploration of their claims, on the reasonable expectation that they may someday develop the claims into production mining.

There are three significant concerns with the treatment of existing rights in the 2021 DNLUP:

- **The current draft of the 2021 DNLUP is not clear that the intention of NPC is that all mineral tenures existing at the time the NLUP comes into force would have the benefit of grandparenting.**

During our conversation with NPC staff in Iqaluit in September 2021, we were provided with assurance that mineral tenures existing at the time the NLUP comes into force would have the benefit of grandparenting. Based on our conversation, the NPC does not intend to limit grandparenting to projects that have completed the Nunavut Impact Review Board (NIRB) or other regulatory approval processes.

Further, our understanding from our conversation with NPC staff is that existing rights would exempt proponents from all application of the NLUP (such as the caribou prohibitions further described below). This is not clear to us in the wording of the current draft of the 2021 DNLUP and again, should be explicitly confirmed in the plan. Basically, the intent for our existing land tenures is to develop a mine, and that our future activities will be allowed under the existing process and not restricted as per the conditions defined in Option 1 and Option 2 of the 2021 DNLUP.

In addition, our understanding of the 2021 DNLUP is that grandparented claims are related to all claims as of April 2021. This date should be adjusted to the date when the DNLUP is approved.

- **Appendix A Existing Rights and Map B2.13 require revision to ensure both are complete and accurate.**

We note that not all of Agnico Eagle’s existing rights are reflected at Appendix A Existing Rights. The enclosed updated map (Figure 1) reflects our current existing rights. We have reviewed map B2.13 “Existing and Potential Linear Infrastructure”. We note existing infrastructure to the Meliadine Mine is not

recognized on the map, through it appears that existing infrastructure from Baker Lake to Meadowbank is generally reflected.

- **Grandparenting of existing tenures should also grandparent land and sea access to the claims, including for any required amendments to or new linear infrastructure.**

It is well understood and acknowledged in the 2021 DNLUP that Nunavut has little existing established infrastructure. Any existing rights should include rights to feasible access to such mineral tenures by land and sea or practically speaking, it will be impossible to exercise any existing rights. Overall our claims cannot be land locked.

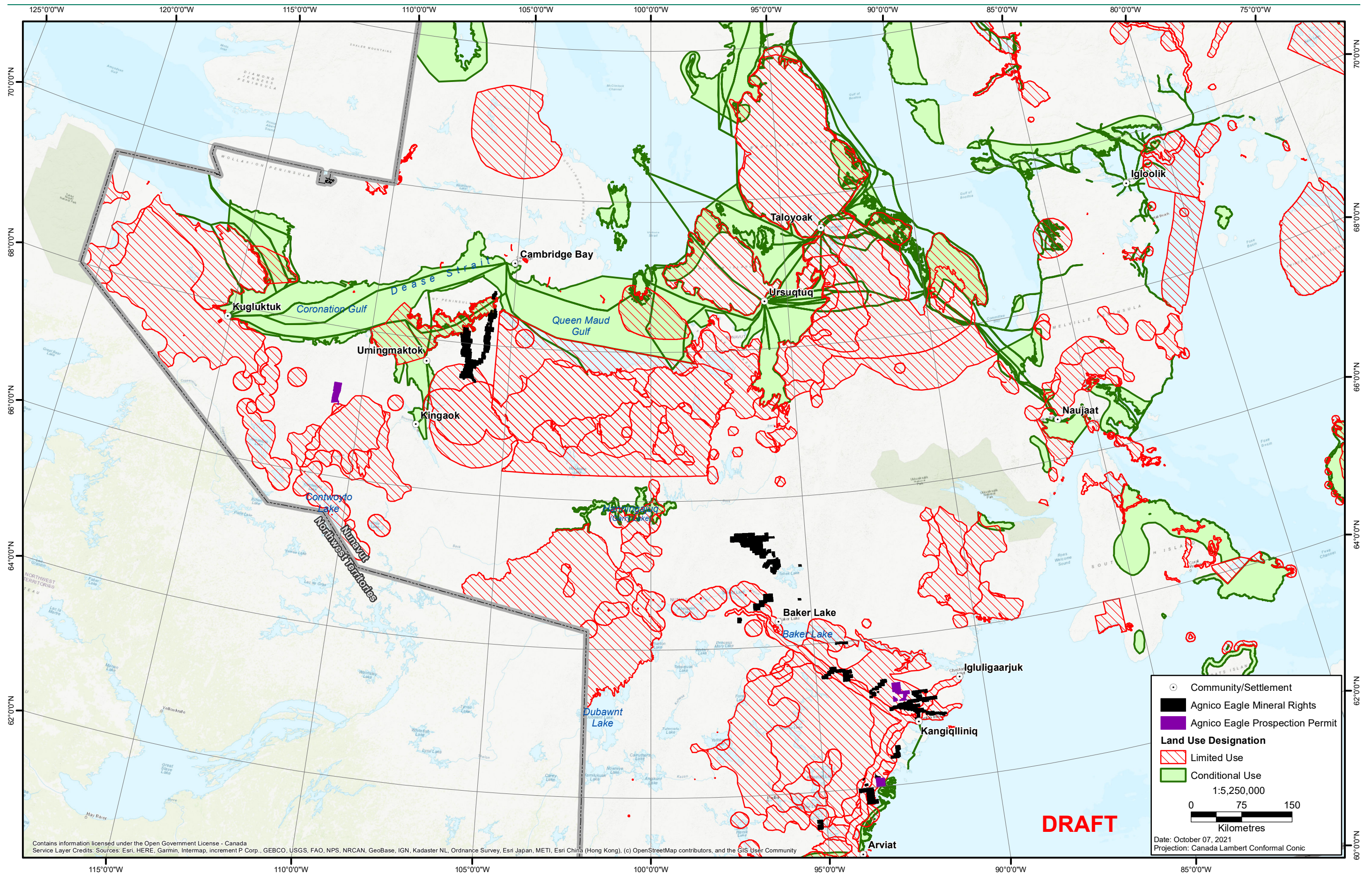
**Agnico Eagle's Recommendation:**

In light of the above, we suggest that section 6.18-1A of the 2021 DNLUP should be revised to align with what was communicated to Agnico Eagle by NPC staff, as described above.

Overall, we suggest that all existing claims (land tenures) that are grandparented should be included on a map that highlights all land tenures, that is attached to the NLUP for reference purposes. There should be no overlap of polygons that restrict the grandparented claims.

In addition, the date of eligible grandparented claims should be adjusted from April 2021 to the date when the DNLUP is approved and comes into force. Tenures which do not appear on the NLUP map would still be able to get the benefit of grandparenting if they are able to provide evidence their tenure was valid as of the date the DNLUP is approved and comes into force.





**Agnico Eagle Mineral Rights, Prospection Permits, and Land Use Designations in the 2021 Draft Nunavut Land Use Plan**



Theme:	Key Substantive Concerns	Rec No.:	2021 DNLUP-06
Re:	Caribou Designations		

### Background:

Section 1.1.1 of the 2021 O&R it states that, “The options and recommendations contained in the 2021 O&R were developed based on the best currently available information and data.” Agnico Eagle is providing the enclosed additional technical information on caribou to support this goal.

We are framing our comments taking into consideration the zoning/designation based framework described in Section 1.4 “Options for Land Use Policy” of the 2021 O&R. The four options included in the 2021 O&R are as follows (with decreasing levels of restrictions on land use):

- **Limited Use (Option 1)** – characterized by year round prohibition of one or more types of land uses, and may include conformity requirements such as seasonal restrictions on certain land uses, or setback requirements around important features;
- **Conditional Use (Option 2)** – characterized by conformity requirements such as seasonal restrictions on certain land uses, or setback requirements around important features;
- **Mixed Use (Option 3)** – characterized by no prohibited uses or other conformity requirements in the NLUP. Other regulatory authorities may set other requirements through the issuance of permits, licences and authorizations as appropriate; and
- **Information on Valued Components (VCs) (Option 4)** – no land use restrictions in the area, except as may be set by regulatory authorities. Identifies geographic areas that are important to Valued Ecosystem Components (VECs) or Valued Socioeconomic Components (VSECs). Proponents and regulatory authorities would be made aware of the importance of the sites, and the NPC would consider this information when determining whether there are potential cumulative impacts concerns regarding project proposals.

Agnico Eagle is concerned about the 2021 DNLUP land use designated areas relating to caribou within the Kitikmeot and Kivalliq regions which include numerous prohibitions and are designated Option 1 Limited Use lands (see for example Table 2, Map B1.3 Caribou Migration Corridors, B1.2 Caribou Rutting Areas). Applying NPC’s rating criteria set out in Section 1 of the 2021 DNLUP, it is our view that the more appropriate ranking for these areas is Option 4 “Information on Valued Components”, for the reasons set out below.

There is a view (which we believe is unsupported) in the 2021 DNLUP that development is detrimental to migratory caribou abundance to the exclusion of other factors. This view is derived from southern Canadian experiences and evidence associated with non-migratory Boreal caribou. From that viewpoint, ceasing development will contribute to caribou abundance. We believe that the NPC, when it has heard on this from some Nunavummiut and southern Canadians, this is the underlying expectation. Caribou



habitat protection is not being sought simply for the sake of protection; it is being sought in the erroneous assumption that this protection will support continued levels of abundance and aid in the recovery of declined herds.

However, the Nunavut experience does not support this view. Areas where caribou habitat have been subject to prohibitions have been subsequently vacated by caribou, and these same caribou have also declined (Bluenose Caribou). Areas where caribou habitat has not been subject to prohibitions, and where development has not occurred have also been vacated by caribou, and these caribou have also declined (South Baffin Caribou). Agnico Eagle has first-hand knowledge that for areas where development has occurred, caribou continue to use these areas, and herd level impacts are difficult, if not impossible to discern. There is currently no Nunavut example of an area that has been subject to development prohibitions for caribou, where caribou continue to rely on that area, and are thriving. Migratory caribou in Nunavut continue to be free to migrate within almost completely underdeveloped areas, caribou continue to enjoy wide choice in range use, and other herd level factors are more important in determining abundance. Therefore, there can be no reasonable expectation that if certain caribou habitats are prohibited from development in Nunavut, that this will result in maintaining current levels of abundance, or aid in the recovery of any caribou herd.

**Agnico Eagle's Recommendation:**

Designating areas under Option 1 will have a significant negative economic impact on operations and, in some cases, will render existing and proposed projects not economically viable. But more importantly, we do not agree this approach will be effective at enhancing protection of caribou. Given that ranges are themselves not fixed, fixing specific caribou areas in the NLUP will not achieve NPC's goals.

In light of all this, Option 4 is an appropriate designation given the inherent fluidity in the ranges. A list of habitat loss in all regions in Nunavut (by herd) has been prepared/was presented to evaluate how much of the herd is impacted by development (current and future). The numbers show no significant loss to caribou habitat. Further, the current designations are based on an unmitigated version of mining production and exploration projects, which means that residual effects are significantly overestimated. We have provided further information with this submission which shows that the stringent, industry leading caribou mitigations in place at our operations have been effective in limiting negative effects on caribou. We have also implemented commitments at our operations to support Inuit in participating in traditional cultural activities, such as hunting.

However, we do respect that NPC has identified that in their view, something further is required at this time to further enhance protection of caribou in Nunavut. Given these challenges, in particular the need for both science and IQ to be given timely consideration to ensure as much accuracy as possible respecting caribou polygons, Agnico Eagle would like to suggest an alternative path forward with respect to caribou. Together with designating these areas as Option 4 VECs/VSECs lands, we suggest that an NPC Caribou Polygon Working Group could be established that is chaired by NPC representative who is an expert in either science or IQ (or both). The group could meet semi-annually and include representatives from the

communities, IQ and scientific experts, representatives from Inuit Organizations, government, and industry. This would enable the group to come to better consensus on the polygons based on current information, but would also allow all participants an opportunity to share information about the most current effective mitigations. The NLUP could reference that the outcomes of the working group recommendations must be carried forward for further consideration in the NIRB process upon referral by the NPC.

We provide further submissions taking into account the NPC criteria below.

- Ratings on the Overall Importance of an Issue:
  - Agnico Eagle agrees that based on the number of participants that identified the issue as a priority, cultural importance of the issue, economic importance of the issue, and ecosystemic value of the issue, that the issue of caribou protection is one of high importance. However, we disagree that geographic based prohibitions would give more protection to caribou than mobile protection measures.
- Rating on Defining Geographic Boundaries:
  - We have low confidence in the scale and precision with which the area can be defined by boundaries. The 2021 DNLUP is not based on current information, and even based on current information the area can vary from year to year, and decade to decade.
  - The level of consensus among participants regarding accuracy of the boundaries is low, and we note participants have not had an adequate opportunity to comment on the boundaries. The revised polygons appear to have been generated in January 2020 with no associated workshop to verify consensus (which is the process that NPC followed previously). A public hearing is not an appropriate method to determine polygons, as it does not allow for the level of collaboration and time required.
  - The 2021 DNLUP uses caribou habitat polygons provided by the GN but there is no information provided on how the polygons were determined.
  - Several interveners commented on the 2016 plan, including the GoC, the KitlA, Beverly Qamanirjuaq Caribou Management Board (BQCMB), Government of Northwest Territories (GNWT), as well as the NWT & Nunavut Chamber of Mines that there should be a clear process for deciding on how the geographic boundaries for caribou areas are determined. This process should include objectives, the number of years of collar data used, statistical methods, and scientific peer review. The 2021 DNLUP does not include a process for defining these areas going forward.
  - The KitlA submitted detailed comments on the 2016 DNLUP that supported the view that caribou shift their habitat use over time. The KitlA, GoC, BQCMB, and KivlA all commented that there should be a process to update the boundaries as caribou shift their habitat use.

However, the 2021 DNLUP does not include a process for updating the boundaries beyond the update to the plan every five years.

- The KitlIA, KivlIA, and BQCMB commented that IQ was not included and suggested that IQ should be used to identify areas for consideration. The 2021 DNLUP does not include a process for incorporating IQ into the caribou boundaries.
  - The objectives for defining the boundaries of caribou areas are not defined in the 2021 DNLUP. The NPC uses updated polygons provided by the GN, presumably to identify current use areas for caribou, as they stated on page 43 of the 2021 O&R document, the NPC states: “the location data should be analyzed more frequently to provide up-to-date delineation of habitat boundaries as well as to understand trends and shifts in spatial behaviour,”. As an example, to have up-to-date delineation of habitat boundaries, in response to a comment at a Cambridge Bay open house (2019), the historic calving grounds of the Bathurst herd were added on the east side of Bathurst Inlet. This historic calving ground hasn’t been used in 30 years, but it is listed as a Limited Use area, overlapping portions of Agnico Eagle’s Hope Bay Project. NPC’s approach to hosting use and occupancy interviews may be enhanced by adding a verification step. It is not clear that sufficient numbers of participants contributed to the information summarized. All information shared by knowledge holders must be respected and is important, but additional steps are necessary to ensure the conclusions drawn from the IQ shared are accurate.
  - The fluid nature of the geographic boundaries supports our view that the more appropriate land designation is Option 4 VEC/VSEC.
- Ratings on Environmental and Cultural Importance
    - Agnico Eagle is not challenging the importance of the areas to the community for hunting, fishing and/or trapping or the importance of the area to wildlife including whether alternate habitat is available. This is why we have committed to stringent mitigation and monitoring, which is reflected in our regulatory approvals issued by authorities such as the NIRB, which will continue to provide stringent protections to these areas. Further, where a community hunts and fishes or traps is not static, similar to the variable nature of caribou and other wildlife range use. As an example, the harvesting areas identified in the original North Baffin and Kivalliq land use plans were different than the areas identified today. In addition NPC has not taken into consideration the effectiveness of the mitigation and monitoring and this is why we feel Option 4 is a preferred option for these controls such as mitigation and monitoring.
  - Ratings on Potential for Non Renewable Resources, Transportation and Linear Infrastructure
    - Agnico Eagle confirms the areas that it has current and future operations in, have high potential for mineral resources and existing rights.

- Any consideration of the potential for non-renewable resources should include not only the likelihood, but the area of impact. While the potential for development may be high, the footprint/area of impact is very low.
- Ratings on Sensitivity to Impacts
  - Any risk assessment must combine the sensitivity of a species with the magnitude of the potential effect; in this case caribou may be sensitive to habitat loss, but the degree of habitat loss is insignificant within the identified caribou boundaries. For instance, the current Meliadine project makes up 0.015% of the Qamanirjuaq post-calving area.
  - There are inconsistencies in the 2021 O&R. The sensitivity to impacts is discussed as being High and Seasonal in the 2021 O&R document for post-calving (page 90) and key access corridors (page 94) but both are later rated as Limited Use areas year-round. We did not identify any justification in the plan for this change from seasonal to year-round prohibitions in these areas.
- Ratings on Other Regulatory Tools
  - The KitIA, KivIA, GoC, and GNWT all suggested Mobile Protection Measures (MPM) as a preferred option for mitigation, rather than prohibitions proposed in the 2016 DNLUP. The 2021 DNLUP ignored these comments and indicates that that Mobile Protection Measures aren't an appropriate mitigation method because:

“there is insufficient evidence that mobile CPMs could be effectively used as a land use planning tool for caribou calving and post-calving habitat management in the NLUP.” We did not identify any reference to any scientific or monitoring data that has been presented in the 2021 DNLUP or the 2021 O&R that supports this statement.
  - This statement does not give appropriate weight to the ongoing monitoring data collected by mines, through an approved Terrestrial Environment Management and Monitoring Plan (TEMMP), that indicates:
    1. Direct habitat loss due to mining is a very small proportion of the calving and post-calving areas, comprising 0.0005% of calving areas and 0.005% of post-calving areas.
    2. 10 years of camera monitoring at Hope Bay mine indicates the zone of influence around mines is relatively small, extending less than 4 km from the mine – equivalent to the line of sight.
    3. Collared female caribou who crossed the Meadowbank all weather access road, and may have hesitated to cross that road, arrived at the calving grounds at the same time as other caribou and successfully birthed calves.

4. Behaviour monitoring at Meadowbank and Meliadine mines indicate that caribou react to passing harvesters on quad bikes and mine vehicles, but quickly return to baseline behaviours, typically within 3 minutes.

Agnico Eagle has collected further monitoring data since the previous caribou workshops held by NPC which provides additional evidence that mobile measures are effective to protect caribou.

Rather than Option 1 Limited Use prohibitions, there should be a hierarchy of mitigation and monitoring that could include mobile caribou measures to an advanced TEMMP depending on the activity (i.e., grass roots exploration to an operation) which can be achieved through Option 4 and using the existing regulatory process such as NIRB and other land use permits with RIA.

Theme:	Key Substantive Concerns	Rec No.:	2021 DNLUP-07
Re:	Restrictions re Community Drinking Water Supply Watersheds		

### Background:

With respect to section 4.5 of the DNLUP, “Community Drinking Water Supplies” NPC has said:

- 4.5.1-1 The community drinking water supply watersheds within municipal boundaries shown on Map B, and Baker Lake and Kugluktuk, are hereby identified as known Valued Socio-Economic Components. [See Map B]
- at 4.5 2-1 that the community drinking water supply watersheds outside of municipal boundaries shown on Map A (except those for Baker Lake and Kugluktuk) are Limited Use areas within which the following incompatible uses are prohibited:
  - (a) oil and gas exploration and production;
  - (b) mineral exploration and production;
  - (c) quarries;
  - (d) hydro-electrical and related infrastructure; and
  - (e) linear infrastructure.

There are no examples of which we are aware, where a development in Nunavut has jeopardised a community drinking water supply or watershed. This approach does not fully take into account Article 10 of the Nunavut Agreement or the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. The NWB would stringently licence any and all of uses for the purposes listed and would ensure that any licence issued would be protective of Nunavut waters.

### Agnico Eagle’s Recommendation:

The NWB jurisdiction over these activities should be respected, and the suggested prohibitions do not appear appropriate given the rigor of the NWB process. For production mining and many of the listed prohibitions, the NIRB process would also evaluate potential for adverse environmental and socioeconomic effects arising for such activities, prior to the issuance of any water licenses by the NWB.

Agnico Eagle suggests that the NPC classify these areas as “Option 4” VCs that would be carried forward to the regulatory process for assessment once a positive conformity decision has been issued.

Theme:	Other Comments	Rec No.:	2021 DNLUP-08
Re:	Clarification re: Information Requirements for VCs		

**Background:**

With respect to the topic of “Valued Components as an Information and Annual Reporting Requirement” (see 2021 O&R), Proponents of projects proposed where VCs are identified are required to provide a statement of anticipated impacts to VCs at the time of submitting a project for a conformity determination.

**Agnico Eagle’s Recommendation:**

It is unclear what level of detailed information would be required to meet conformity. It is submitted that the level of detail needed at the NPC stage should be equivalent to the current level of detail required by NPC on such topics.

We also request that NPC confirm that any new requirement to report would not overlap or duplicate NIRB requirements to report under a Project Certificate. If this reporting requirement is similar or identical to what is in place by the NIRB, we question the need or efficacy of this measure.

As noted above, we support the Option 4 VEC/VSEC land use designations, which would provide a notice to the applicant and regulatory authorities that the VEC/VSEC should be part of the regulatory process and evaluated for effects and any associated monitoring or mitigation that may be required. In the event of a conflict between the VCs identified in the NLUP and the VCs identified by NIRB as part of the targeted scoping of an environmental assessment and preparation of Final Environmental Impact Statement (FEIS) Guidelines, in our view the NIRB identified VCs should prevail as they are identified specific to the consultation on the project and would be based on most up to date information. This should be explicitly acknowledged in the NLUP. For example, if current IQ indicates that a particular species is no longer relevant despite what is described in the NLUP, proponents should not be required to include information on that VC in the FEIS.

Theme:	Other Comments	Rec No.:	2021 DNLUP-09
Re:	Approach to Minor Variances		

### Background:

With respect to “Minor Variances” the NPC’s current recommendation is as follows:

- Consider minor variances for relief from setbacks and seasonal restrictions in CU and LU areas; a minor variance is not to be issued for relief from a prohibition
- Criteria that will be considered are whether the proposed minor variance:
  - is necessitated by unique physical features or limitations of the project location, such as those related to topography, vegetation or climate;
  - will cause unacceptable adverse impacts or interference with persons, projects, wildlife, the environment or existing uses or interests;
  - is consistent with the general intent and purposes of the NLUP;
  - is appropriate in the context of surrounding land uses and land use designations; and
  - will set an undesirable precedent.

### Agnico Eagle’s Recommendation:

Agnico Eagle does not agree that minor variances should not be available for relief from prohibition. For example, if evidence can be presented that the prohibition is no longer appropriate (e.g., wildlife and/or Inuit are no longer using the area in the same way as previously), this could support an appropriate minor variance issuance. Agnico Eagle also notes the NPC is not bound by precedent and so whether or not an “undesirable precedent” will be created should not be a relevant consideration.



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Theme:	Other Comments	Rec No.:	2021 DNLUP-10
Re:	Approach to Historic and Other Sites in Nunavut		

**Background:**

The 2021 DNLUP includes enhanced restrictions for certain heritage sites. For example, the three designated Canadian heritage rivers within the NSA (the Thelon, Kazan, and Soper rivers). These areas already are subject to their own final or draft management plans. The additional prohibitions set out in the 2021 DNLUP are not necessary to ensure these areas are managed in a sustainable manner.

Similarly, national wildlife areas already identify activities that are prohibited without a permit. It is not appropriate to prohibit the specified uses, when regulatory requirements already exist which manages activity.

Areas pending designation under federal acts (such as the *Ocean Act*) are already subject to protections established in accordance with the applicable legislation.

**Agnico Eagle's Recommendation:**

Agnico Eagle requests that NPC take the above comments into consideration.

Theme:	Other Comments	Rec No.:	2021 DNLUP-11
Re:	Wildlife Prohibitions		

**Background:**

The 2021 DNLUP includes numerous other prohibitions, relating to migratory birds, polar bears, walrus, and other wildlife. We note that these prohibitions are not necessary to ensure protection of these species given the jurisdiction of federal and territorial authorities over these topics, and existing applicable legislation, such as the *Migratory Birds Convention Act* and *Wildlife Act*. Agnico Eagle is required under its various project certificates issued by NIRB to have a TEMMP that is subject to review by key Inuit and regulatory authorities. These are rigorous plans which include specific and targeted mitigations to protect wildlife.

**Agnico Eagle's Recommendation:**

These lands should be designated Option 4 VEC and VSEC lands, which are assessed through NIRB and are not barred from the opportunity to enter the regulatory process.

## **Appendix B: Third-party High-level Review of the 2021 DNLUP**

**Memo**

<b>To</b>	Jamie Quesnel; Agnico Eagle
<b>From</b>	Dr. Greg Sharam; ERM
<b>Date</b>	6 October 2021
<b>Reference</b>	0614866-01
<b>Subject</b>	High-Level Review of the 2021 Draft Nunavut Land Use Plan.

Dear Mr. Quesnel,

ERM has conducted a high-level review of the Draft Nunavut Land Use Plan (DNLUP 2021) on behalf of Agnico Eagle. Due to the short timeline, a detailed technical review was not possible. The following documents were reviewed:

- the Draft Nunavut Land Use Plan, July 2021 and September 2021;
- The Options and Recommendations document, Draft 2021 (O&D document, July 2021); and
- Associated A-series and B-series maps.

This high-level review identified 5 issues:

- The DNLUP does not include a clear objective or process for defining the caribou polygons; objectives are not stated, there is no codified process for inclusion of Inuit Qaujimajatuqangit (IQ), no scientific process for defining the polygons, and no process for peer review or updating the polygons.

Four of the issues identified by the review concern the process of determining that caribou and industrial development are incompatible. We suggest that the NPC should consider:

- The current and potential future area of habitat loss if industrial developments proceed is extremely small;
- Mobile protection measures for caribou provide a flexible and rigorous management program, but the NPC has not given due consideration and weight to the evidence presented by Agnico Eagle and others that mobile protection measures have been shown to be effective in protecting caribou;
- Agnico Eagle mining projects in Nunavut have a robust program of mitigation that includes IQ and Landuser knowledge, ongoing scientific review and direction and oversight by the Nunavut Impact Review Board (NIRB). These plans - the Wildlife Mitigation and Monitoring Plan (WMMP) and Terrestrial Ecosystem Monitoring Plans (TEMP) - are subject to comprehensive and robust review prior to project approval during the environmental assessment process by interveners, including the Government of Nunavut (GN), Government

of Canada (GC), Kitikmeot Inuit Association (KitIA), Kivalliq Inuit Association (KivIA), and Hunters and Trappers Organizations (HTOs). Once the assessment is complete and the project is approved by NIRB and the Minister, the TEMP and monitoring data collected under it are subject to continual review and revision through the NIRB as well as through project-specific advisory groups that include Inuit Elders and regulatory groups.

- Agnico Eagle's mines (Meadowbank, Meliadine and Hope Bay) have robust wildlife monitoring programs that are already required by regulatory authorities, and have been shown to be effective in measuring project effects on caribou.

## 1. DEFINING POLYGONS

Our review has considered the DNLUP (2021) and comments on the previous versions of the DNLUP (2016) by the Kitikmeot Inuit Association (KitIA), Kivalliq Inuit Association (KivIA), Beverly and Qamanirjuaq Caribou Management Board (BQCMB), Government of Canada (GoC), and Government of Nunavut (GN).

### *Objectives*

Polygons with prohibitions on mining (Limited Use) make up 48% of the Kitikmeot and 28% of the Kivalliq regions and have expanded across Nunavut by 60% from the last version of the DNLUP (2016). With such a large proportion of the land area with bans on development it is critical that these polygons be defined in a clear and transparent manner.

The objectives of defining seasonal polygons for caribou should be clearly stated as these objectives determine the types of data to include when defining the polygons. Depending on the objectives and data, several options are possible, including:

- Identifying the historic areas used by caribou through Inuit Qaujimajatuqangit (IQ) (e.g., IQ identifies that the Bathurst herd has historically calved from the Hood River to the Queen Maude Gulf);
- Identifying the long-term areas used by caribou in the last 20 years using satellite and GPS collars; or
- Identifying current caribou usage.

The 2021 DNLUP O&G document presents several types of data, including: 1) polygons provided by the GN, and 2) polygons suggested by community participants (e.g., a part of the historic Bathurst calving range). The dates of collar data used to produce the GN polygons are not provided, so it is not clear if the objective is to identify current or long-term areas used by caribou.

The NPC should clearly state what the objectives are for defining polygons and then clearly state how data was chosen to meet these objectives.

### *Including Inuit Qaujimajatuqangit*

The O&D document does not include a formal process for including Inuit Qaujimajatuqangit (IQ). Ideally, this process should include, at a minimum, a process for identifying knowledge holders

and seeking consent from knowledge holders to record and use their knowledge, a process to identify and validate shared IQ, and a method for tracking which mapped data is derived from IQ.

### *Variation in Caribou Habitat Use*

In their comments on the 2016 DNLUP, the KitlA provided IQ and an analysis of satellite collar data that indicated that caribou change the areas they use both on a year to year basis and with larger range shifts over longer time periods.

The KitlA cautioned that using a land based protection system, relying on defined fixed polygons based on outdated information to prohibit development in certain geographic areas, would not enhance caribou protection at all and would deprive Inuit of the opportunity to economically benefit from the opportunity to develop those lands.

We agree with these comments and note that the 2021 DNLUP likewise does not include a process for accounting for shifts in caribou distribution, which are likely to occur in future due to:

- Annual variability in weather;
- “Range exhaustion” from over-grazing;
- Variability due to herd size; and
- Accelerating shrubification and vegetation change due to climate change.

We suggest that an approach that follows the caribou as it moves through the landscape - mobile caribou protection measures - is much preferred, as caribou are then subject to enhanced protection wherever they move through the Nunavut landscape, whether inside or outside the historic habitat polygons.

### *Data Analysis*

Any analysis of wildlife distribution should include a clear statement of objectives (discussed above) and a clear plan to meet those objectives through data collection, processing and analysis. The O&D document indicates that the caribou polygons were received from the GN, but does not include any plan for analysis to meet specific objectives.

The 2021 DNLUP does not include a description of the methods used to calculate the caribou polygons. Therefore, ERM reviewed the supporting documents provided by the GN for the polygons provided for the 2016 DNLUP (Calsys 2015).

Comments include:

- The data appear to be pooled among years. Pooling of data among years will preferentially weight the distribution of animals towards years when data are more numerous. This can arise from different numbers of animals in the sample for different years or from different data fix frequencies. The Calsys (2015) methods document noted that data were reduced to a single location per day. This is a good step as it equalizes locations collected more than once per day. However, there are years where data were collected less than once per day – years

with such data collection are underrepresented in the data set and have proportionally lower influence on the resulting UD.

- The document does not clearly present how points are sub-selected to account for different types of collars, or data frequencies between years, and equivalency of data
- The choice of a bandwidth (or smoothing parameter) is a key decision in the calculation of utilization distributions. It appears that Caslys (2015) has used the term “search radius” for the same process. Choosing a fixed distance for smoothing parameter is an appropriate method. However, each caribou herd can be expected to use the landscape differently (concentrated calving by the Beverly herd vs. more distributed calving by the Qamanirjuaq herd) and the fixed value for a herd with smaller annual and seasonal ranges may have a different optimum fixed value than a herd that is more wide-ranging. The approach for choosing a smoothing parameter should provide a framework for decision making that is objective and repeatable. It is also important to note that large smoothing parameters, while identifying potential range extent, may inflate the size of the range
- Choice of the % kernel density for the plan. The plan discusses “core calving areas” which are typically defined as the 50% kernel density. However, the much larger 95% kernel density is used in the Caslys (2015) analysis. Typically, the 95% kernel density is interpreted as “herd range”. Furthermore, the “95% kernel” has been inflated further with the buffering of polygons (see below).
- The process of connecting polygons by further buffering them is inappropriate as the bridges created are unsupported. Data locations are already buffered in the creation of the UDs. By adding buffers to those UDs, the % value attached to the UD is not possible to calculate. E.g., a 95% UD with an additional buffer added to it is no longer a 95% UD.

We recommend that the NPC hold technical meetings with representatives from key stakeholders to determine the objectives and a plan for data analysis and consensus.

### *Peer Review*

The O&D document does not include a process for technical peer review of the calculated polygons. We recommend that the NPC establish a technical committee to review and provide comments on the objectives, methods and results of the polygon calculations.

### *No Plan to Update the Polygons*

The O&D document does not include triggers or conditions to update the polygons - such as a documented range shift or after a certain number of years.

## **2. EVALUATING RISK**

The O&G document includes an analysis of six factors to determine what land management to use:

- Overall Importance of an issue,
- Defining geographic boundaries,

- Environmental and cultural importance,
- Potential for non-renewable resources, transportation and linear infrastructure,
- Sensitivity to impacts, and
- Other regulatory tools.

For example, in the case of the caribou post-calving, this analysis indicated:

- Sensitivity to impacts is: high and seasonal; and
- Potential for non-renewable resources, transportation and linear infrastructure is: Low (western Ahik and Beverly herds) and High (all other herds).

Note that this analysis identifies the potential for development, but does not evaluate the number or size of developments. Certainly, a development with a miniscule area (0.00001%) of the post-calving area has a different effect on caribou to a development activity that uses 20% of the post-calving area.

It is recommended that the NPC should consider the risk to caribou based on the size and number of developments. Caribou may be sensitive to habitat loss, but if the area lost is very small compared to the overall availability of alternative habitats, then the risk to caribou is low or negligible.

To illustrate, ERM calculated the area of habitat that has been lost to date in the caribou habitat areas identified for protection in the DNLUP (2021). This analysis indicates that a very small area of habitat has been lost to date (Table 2-1).

ERM also calculated the potential area of habitat loss if a reasonable number of foreseeable projects advanced during the next 20 years (Table 2-2) and using the Meadowbank mine as a template for future mines.

Using the post-calving area as an example, to date 0.0049% has been removed and 0.027% would be removed if a reasonably foreseeable number of mines went ahead.

**Table 2-1 Area Currently Lost to Mining Projects Overlapping with Caribou Habitat**

Caribou Areas	Area Lost (km <sup>2</sup> )	NPC Polygon Area 2021 Total (km <sup>2</sup> )	Percent Area Lost	Existing Mining Projects within Kitikmeot and Kivalliq Region with Partial Overlap
Calving	1.36	267,455	0.0005	Izok AWAR
Post-calving	4.38	88,113	0.0049	Meliadine
Key Access Corridor	0.52	16,205	0.0031	Izok AWAR
Freshwater Crossing	11.50	35,671	0.0322	Meadowbank AWAR, Jericho, Lupin, Izok
Sea Ice Crossing	0.16	123,805	0.0001	Hope Bay Port



**Table 2-2 Area Lost to Mining Projects if a Likely Number of Projects Advance**

<b>Caribou 2021</b>	<b>Future Area Lost (km<sup>2</sup>)</b>	<b>NPC Polygon Area 2021 Total (km<sup>2</sup>)</b>	<b>Percent Area Lost</b>	<b>Likely Future Mining Projects within Kitikmeot and Kivalliq Region with Partial Overlap</b>
Calving	19.49	267,455	0.0072	Hope Bay Boston (permitted)
Post-calving	24.17	88,113	0.0274	Ferguson, Hackett, Churchill, Meliadine Expansion
Key Access Corridor	-	16,205	-	None
Freshwater Crossing	-	35,671	-	None
Sea Ice Crossing	0.07	123,805	0.00006	Grays Bay (Izok port)

To date, Agnico Eagle has one mine in the post-calving polygon – the Meliadine mine. However, Agnico Eagle holds several groups of mineral claims in the Qamanirjuaq caribou range, including several in the post-calving range. To examine the potential for cumulative effects, ERM calculated the total area of Agnico Eagle mineral claims in the post-calving area for the Qamanirjuaq caribou; 1,744 km<sup>2</sup> of Agnico Eagle's mineral claims overlaps post-calving polygons identified for the Qamanirjuaq herd (44,105 km<sup>2</sup>) which equals 3.9% of the post-calving.

However, mines are much smaller than the surrounding mineral claims. For example, Meliadine to date is 4.38 km<sup>2</sup>, which is less than 1% of the surrounding Meliadine mineral claims (490 km<sup>2</sup>).

Therefore, if we assume that mines make up an average of 1% of the area of mineral claims and that Agnico Eagle builds a mine on each group of mineral claims, the total potential future area of Agnico Eagle mines in the Qamanirjuaq range is 17.44 km<sup>2</sup> or 0.039% of the post-calving for the Qamanirjuaq.

As part of the Bathurst Caribou Range Plan (BCRP, GNWT 2018), the GNWT established thresholds for Cumulative Land Disturbance Framework (CLDF) for five Range Assessment Areas (RAAs). RAA #1 includes the Bathurst calving and post-calving range. The thresholds for disturbance in RAA #1 include:

- Low Risk, Desirable CLDF: <70 km<sup>2</sup> of direct habitat loss, or <0.18% of the RAA;
- Moderate Risk, Cautionary CLDF: 70 to 140 km<sup>2</sup> of direct habitat loss, or 0.18% to 0.36% of the RAA; and
- High Risk, High CLDF: >140 km<sup>2</sup> of direct habitat loss, or 0.18% to 0.36% of the RAA.

Using the example of the Qamanirjuaq post-calving from above:

- Current loss: The Meliadine mine takes up 0.0099% of the Qamanirjuaq post-calving area;
- All possible future Agnico Eagle mines (one mine in each group of claim blocks) in the Qamanirjuaq post-calving area would take up 0.039% of the Qamanirjuaq post-calving area; and

To examine current and future cumulative effects across Nunavut:

- Current Loss: All current mines in post-calving areas have resulted in 0.0049% habitat loss in post-calving across Nunavut (Table 2-1); and
- Likely Future Loss: All likely future mines in post-calving areas would result in 0.027% habitat loss in post-calving across Nunavut (Table 2-2).

Each of these values is far below the Low Risk/Desirable threshold provided for RAA #1 in the BCRP which contains the calving and post-calving areas for the Bathurst herd.

We suggest that the NPC hold a working group with all knowledge holders to establish a process for evaluating the potential for negative effects to caribou based on the area of habitat loss and number of projects compared against reasonable thresholds for disturbance for each area.

### 3. MOBILE PROTECTION MEASURES

Mobile protection measures are a flexible and effective approach to managing potential effects on caribou. The management measures “travel with the caribou” and are triggered when caribou are present. Depending on the season and sensitivity of caribou, different mitigations can be triggered.

Both the Kivalliq Inuit Association (KivIA 2017) and Kitikmeot Inuit Association (KitIA 2017) advocated for using mobile protection measures in lieu of area-based prohibitions in their submissions on the 2016 DNLUP.

Agnico Eagle’s three operating mines, Meadowbank, Meliadine and Hope Bay, all use a form of mobile protection measures with monitoring programs to detect caribou and mitigations triggered when caribou are present.

Mobile protection measures have several advantages over area-based prohibitions, including:

- Mobile protection measures do not ban mining in large areas and limit economic development.
- Caribou can shift their habitat use year to year and remain protected.

Mobile protection measures are already regulated through existing processes. Mobile protection measures are applied to mineral exploration through land use licenses. Mining projects permitted through the NIRB and Inuit agreements use the principles of mobile protection measures as a basis for developing the detailed Wildlife Mitigation and Monitoring Plans (WMMP) and Terrestrial Environment Management Plans (TEMPs). The 2021 DNLUP does not acknowledge that these existing regulatory mechanisms exist and can provide effective mitigation for caribou at industrial sites.

We respectfully suggest that the NPC validate the approach of using mobile protection measures for mining project; this is the preferred mitigation method of the KitIA and KivIA, has several advantages over fixed polygons and there is already a regulatory system in place to manage them.

## 4. PROJECT MITIGATION

When evaluating the sensitivity of caribou to exploration and mining and associated infrastructure, the NPC does not consider the existing mitigation measures used by mines.

These mitigation measures are developed collaboratively based on IQ, Landuser knowledge, scientific studies, government-led monitoring and on-site monitoring. For example, Agnico Eagle's Hope Bay mine meets regularly with a Inuit Environmental Advisory Committee (IEAC) made up of Elders and Landusers who are familiar with the Project site. This committee identified potential issues for caribou and the environment and worked collaboratively to design the mitigation system for the mine. After visiting the site, reviewing the monitoring programs, and interviewing Project personnel responsible for carrying out the mitigation measures, IEAC members agreed (TMAC 2017) that:

*"With the planned mitigation, caribou can remain safe on and around the Project site without any impacts on survival or reproduction of the herds mitigation at Hope Bay will keep caribou safe."*

Agnico Eagle also employs Inuit specialists in Traditional Knowledge to collect IQ related to the Projects. Agnico Eagle employs at least two full time employees with the title "Wildlife and IQ Coordinator".

Mitigation for caribou at the Meadowbank mine is discussed and updated in response to a Terrestrial Advisory Group (TAG) that includes the GN, KivIA, the Hunters and Trappers Association (HTO), Agnico IQ specialists and other groups as needed. The TAG meets regularly to review the results of monitoring programs and update the mitigation measures for the Project. The Meliadine Mine has committed to developing a similar TAG.

Mitigation also includes mobile protection measures – mitigation that is triggered when groups of caribou approach the mine. Caribou annual movements are monitored to look for shifts in habitat use, and telemetry data is shared by the GN to allow projects to plan and trigger mitigation. Triggers and mitigations for each Agnico Eagle project are tailored to the location, likelihood caribou will be present and the season and sensitivity of caribou in that season. For instance, at the Meliadine mine, which is located in the post-calving range of the Qamanirjuaq herd, mitigation measures are designed to reduce disturbance to caribou, including:

- Monitoring caribou positions using telemetry and height of land (HOL) surveys at the mine and All Weather Access Road (AWAR).
- When caribou approach the AWAR, the road is closed.
- When greater than 50 caribou are within 5 km of the mine site, outdoor operations of the mine are suspended, including vehicle movement, underground mining, drilling or blasting in the pit and use of helicopters. Mitigation measures Site and road monitoring when caribou within 10 km.
- These closures occurred over 28 days in 2021, 15 days in 2020 and 13 days in 2019.

The Hope Bay and Meadowbank mines feature similar mitigation measures, tailored to their location and interactions with caribou.

In addition, mitigation measures are built into the design and everyday operations of Agnico Eagle's projects. Roads are designed to be low (0.5-1.5 m), with a 1:4 side slope, and surfaced with fine-grained material (e.g., esker) to allow caribou and other animals to easily cross. In addition, noise, dust and water quality are managed, monitored and reported to a variety of review and regulatory bodies for each mine, including:

- Hope Bay mine – IEAC, KitlA, HTO, GN, Nunavut Water Board (NWB); Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) and the NIRB;
- Meadowbank mine – TAG, KivIA, HTO, GN NWB; CIRNAC and the NIRB;
- Meliadine mine – TAG (committed to establish), KivIA, HTO, Sayisi Dene First Nation (SDFN), Northlands Denesuline First Nation (NDFN), GN, NWB, CIRNAC and the NIRB.

We respectfully suggest that the NPC review and consider the existing mitigation systems for Agnico Eagle projects. These programs are based on IQ, based on collaboration with Elders, Landusers, Inuit organizations and other regulators and contain multiple monitoring and feedback mechanisms with Inuit, communities and regulators to minimize potential effects on caribou.

## 5. PROJECT MONITORING

As part of NIRB conditions for Hope Bay, Meadowbank and Meliadine mines, Agnico Eagle is responsible to monitor potential effects on caribou, with each mine producing an annual report for the NIRB that is sent to and reviewed by Inuit organizations and other regulators (described in the previous section).

During the environmental assessment process, common issues raised by interveners on Agnico Eagle projects have included: 1) that caribou habitat will be lost, 2) caribou will substantially alter their behaviour due to mines and loose energy, 3) that caribou will avoid mines and 4) that these local-scale effects could act cumulatively to result in population-scale effects, e.g., females not breeding.

As part of these annual reports, and in response to questions raised by reviewers, Agnico Eagle has conducted a series of focused studies to measure potential effects on caribou. A selection of these recent, focused studies are listed below that address specific questions about project effects on caribou. Studies are organized by topic. All of the annual monitoring reports and focused studies are available to the NPC upon request.

Topic 1: Area of caribou habitat lost due to mines.

- Monitoring Result: Current direct habitat loss due to all mining projects is a small proportion of the calving and post-calving areas, comprising 0.0005% of calving areas and 0.005% of post-calving areas. The current footprint of the Hope Bay and Meadowbank mines is outside caribou calving and post-calving areas, while the Meliadine mine occupies 0.0099% of the Qamanirjuaq post-calving area (See Section 2, above).

#### Topic 2: Caribou behaviour at mines.

- Monitoring Result: Behaviour monitoring at Meadowbank Mine of the Lorillard caribou during the spring and fall migrations indicate that caribou react to passing harvesters on quad bikes and mine vehicles, but quickly return to baseline behaviours, typically within 3 minutes (ERM 2021b).
- Monitoring Result: Behaviour monitoring at the Meliadine Mine of the Qamanirjuaq caribou during the post-calving period indicate that caribou react to passing harvesters on quad bikes and mine vehicles, but quickly return to baseline behaviours, typically within 3 to 6 minutes (ERM 2021b).

#### Topic 3: Caribou avoidance of mines.

- Monitoring Result: 10 years of trail camera monitoring at Hope Bay mine indicates the zone of influence around mines is relatively small (2 km or less). Statistical analysis indicated that there was a significant difference in caribou occupancy between the Treatment (< 2 km from the mine) and Control zones. However, additional analysis using continuous distance to infrastructure did not indicate any ZOI (no significant result) (ERM 2020).

#### Topic 4: Herd-level impacts.

- Monitoring Result: A study conducted in 2020 indicated that collared female caribou who crossed the Meadowbank All Weather Access Road and Whale Tail Haul Road during spring migration, arrived at the calving grounds at the same time as animals who did not cross the road (Golder 2020). This study concluded that there was no statistically significant changes in arrival at calving or wintering areas, duration of spring migration, and movement duration in response to roads. Caribou calving rates and calf mortality also supported that the road did not affect Lorillard caribou.

These monitoring studies add to the body of scientific data that is quantifying the true effects of industrial development on caribou.

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