

of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well-being of the residents of Canada outside the Nunavut Settlement Area.

These objectives are confirmed under s. 23 of the *NuPPAA*.

Section 88 of the *NuPPAA* indicates: “*The purpose of screening a project is to determine whether the project has the potential to result in significant ecosystemic or socio-economic impacts and, accordingly, whether it requires a review by the Board...*”

To determine whether a review of a project is required, the NIRB is guided by the considerations listed in s. 89(1) of *NuPPAA*:

89. (1) The Board must be guided by the following considerations when it is called on to determine, on the completion of a screening, whether a review of the project is required:

- (a) a review is required if, in the Board’s opinion,*
 - i. the project may have significant adverse ecosystemic or socio-economic impacts or significant adverse impacts on wildlife habitat or Inuit harvest activities,*
 - ii. the project will cause significant public concern, or*
 - iii. the project involves technological innovations, the effects of which are unknown; and*
- (b) a review is not required if, in the Board’s opinion,*
 - i. the project is unlikely to cause significant public concern, and*
 - ii. its adverse ecosystemic and socioeconomic impacts are unlikely to be significant, or are highly predictable and can be adequately mitigated by known technologies.*

As prescribed by s. 89(2) of *NuPPAA*, the considerations set out in paragraph 89(1)(a) prevail over those set out in paragraph 89(1)(b).

As set out under s. 92(1) of *NuPPAA*, upon conclusion of the screening process, the Board must provide a written report to the responsible Minister(s) to address the following:

- 92. (1) The Board must submit a written report to the responsible Minister containing a description of the project that specifies its scope and indicating that:*
- a) a review of the project is not required;*
 - b) a review of the project is required; or*
 - c) the project should be modified or abandoned.*

After completing a review of all the information received, and taking into account the information provided by the Proponent and commenting parties to date, the Board has concluded that there is potential for significant adverse ecosystemic or socio-economic impacts to be associated with the project proposal.¹ Consequently, the Board has concluded that the Chidliak

¹The significance of potential ecosystemic and socio-economic impacts was assessed by the Board with regard to the factors outlined in s. 90 of *NuPPAA*.

Diamond Mine Proposal **should undergo a full review of potential ecosystemic and socio-economic impacts** under Part 5 or 6 of the *Nunavut Agreement* and Part 3 of the *NuPPAA*. As outlined in more detail, the Board identified that a review was warranted due to significant public concern with the Proposal, and the potential for significant adverse impacts on wildlife habitat, Inuit harvesting activities.

REFERRAL OF THE CHIDLIAC DIAMOND MINE PROPOSAL

On May 5, 2022 the NIRB received a referral to screen De Beers' "Chidliak Diamond Mine" Proposal from the Nunavut Planning Commission (NPC or Commission), which noted that the Proposal is located outside the area of an applicable regional land use plan.

Pursuant to Article 12, Sections 12.4.1 and 12.4.4 of the *Nunavut Agreement* and s. 87 of the *NuPPAA*, the NIRB commenced screening of the Proposal and assigned it file number 22MN025.

PROJECT OVERVIEW & THE NIRB ASSESSMENT PROCESS

1. Project Description

The Proponent is proposing to build a diamond mine at the Chidliak exploration site on the Hall Peninsula of Baffin Island, Nunavut approximately 120 kilometers (km) northwest of Iqaluit and 200 km south of Pangnirtung. De Beers proposes to use a "FutureSmart Mining"² approach to the development and operation of the proposed mine, allowing for relatively small Kimberlite pipes to be mined using largely remote mining techniques and mobile camps to reduce potential environmental impacts. In its response to comments, the Proponent acknowledges that a review of the Proposal is required.

2. Scoping

As required under s. 86(1) of *NuPPAA*, the Board accepts the scope of the "Chidliak Diamond Mine" Proposal as set out by De Beers. The scope of the Proposal, as screened by the Board, includes the following undertakings, works, or activities:

- Development and Mining of up to 35 Kimberlite Pipes
 - Open Pit and Underground mines;
 - Construction of a Waste Rock pile;
 - Construction of a mobile and modular Kimberlite processing facility (relocated as kimberlite pipes are mined);
 - Continued Bulk Sampling;
 - Continued Blasting and Drilling Programs;
- Mobile and modular Accommodations Facilities (relocated as kimberlite pipes are mined);
- Use of Rotary and Fixed wing aircraft for transport of equipment and personnel;

² As set out by the Proponent in the *Chidliak Project Proposal Plain Language Summary*, (available from the NIRB Public Registry Doc ID Nos. 341275-341278) key FutureSmart Mining Principles include the following: use of low-carbon energy; small mine footprint; minimal water use; modular, automated reliable and connected infrastructure; remote monitoring; and a modern employee operating model.

- Fuel and Chemical Storage for Rotary Wing Aircraft, light and heavy Vehicles, Fixed-Wing-aircraft and various Project equipment;
 - 2,500,000 ML of Diesel;
 - 5000 L of Gasoline;
 - 30,000 L of Aviation Fuel;
- Storage of Ammonium Nitrate for blasting;
- Construction of a Quarry/ Borrow Pit;
- Construction of an Airstrip;
- Potential construction of an All-Weather Access Road;
- Potential construction of a Winter Road;
- Potential construction and use of a Transmission Line;
- Use of Drills, Haul Trucks, Light Vehicles, various Loaders and blast Equipment;
- Withdrawal of freshwater to be used as drinking water in the accommodations;
 - 10,000m³/day (Withdrawal amounts are estimates and still under consideration as development plans are modified);
 - Withdrawn from Qamaniruluk Y Lake, Qamanialuk Lake, Sunrise Lake, Glacier Lake, McKeand River and other waterbodies;
- Waste Disposal
 - Organic food waste using an incinerator (200kg.day);
 - Grey water (200m³/day);
 - Construction of a Landfill (Non-combustible and inert waste); and
 - Potential installation of a small modular nuclear reactor.

3. Key Stages of the Screening Process

The following key stages were completed:

Date	Stage
May 5, 2022	Receipt of project proposal and note from the NPC of no applicable Land Use Plan.
September 7, 2022	Proposal submitted to the NIRB
September 12, 2022	Information request
September 13, 2022	Proponent responded to information request(s)
September 13, 2022	Scoping pursuant to s. 86(1) of <i>NuPPAA</i>
September 15, 2022	Public engagement and comment request
October 6, 2022	Receipt of public comments
October 21, 2022	NIRB requested a Ministerial Extension to the 45 day time limit set out in s. 92(3) of <i>NuPPAA</i>
November 14, 2022	NIRB Provided its recommendation to the Responsible Minister

4. Public Comments and Concerns

Notice regarding the NIRB's screening of the Chidliak Diamond Mine Proposal was distributed on September 15, 2022 to community organizations in the South Baffin region, specifically the communities of Iqaluit, Pangnirtung, Qikiqtarjuaq, Kimmirut and Kinngait, as well as to relevant federal and territorial government agencies, Inuit organizations and interested parties. The NIRB

requested that interested parties review the Proposal and provide the Board with any comments or concerns by October 6, 2022 regarding:

- Whether the project proposal is likely to arouse significant public concern; and if so, why;
- Whether the project proposal is likely to cause significant adverse eco-systemic or socio-economic effects; and if so, why;
- Whether the project proposal is likely to cause significant adverse impacts on wildlife habitat or Inuit harvest activities; if so, why;
- Whether the project proposal is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (please provide any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal, including if a Review is required any additional factors that should be considered as part of that process.

The following is a *summary* of the comments and concerns received by the NIRB – please note that the complete comment submissions have been included as **Appendix A** to this report:

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)

- Notes that due to the scale and breadth of the proposed project activities outlined, the Proposal has the potential to arouse significant public concern as well as cause significant adverse ecosystemic and socio-economic effects. As a result, CIRNAC recommends that this Project be referred to a full environmental impact assessment in order to determine the potential extent of impacts.
- CIRNAC recommends that the Proponent prioritize Inuit employment and training for Inuit in Iqaluit and Pangnirtung as well as procurement opportunities for Inuit-owned businesses.
- CIRNAC recommends the Proponent consult with the City of Iqaluit, Hamlet of Pangnirtung as well as other interested Hamlets. CIRNAC also notes that the Hunter's and Trappers Organizations for these communities should also be engaged.

Environment and Climate Change Canada (ECCC)

- Recommends that the Proposal warrants an in-depth analysis related to ECCC's mandate including water quality, air quality, environmental emergencies, migratory birds, species at risk and climate change. ECCC notes they will support the NIRB's assessment of the Proposal in this capacity.

Government of Nunavut (GN)

- Anticipates that the Project can provide substantial socio-economic benefits to the South Baffin Region.
- Notes that potential ecosystemic effects are largely uncertain due to the limited scope of the Proposal.
- Indicates that the scale and current scope of the Proposal is quite broad and requires further refinement prior to the completion of the assessment.

- Notes that the Proposal footprint overlaps with the range of the South Baffin caribou Herd.
- Highlights the need for engagement and careful consideration of the use of linear infrastructure due to lessons learned about the development and use of roads elsewhere in Nunavut.
- Expresses concerns with the direct overlap of the Project footprint with the Davis Strait polar bear sub population, which are listed as a species of special concern under the *Species at Risk Act*.³
- Recommends that the Proponent consult with the Hunters and Trappers Organizations of Iqaluit and Pangnirtung regarding the use of Sukanga Lake and other traditional harvesting areas in the vicinity.

Oikiqtani Inuit Association (QIA)

- Recommends that the Proposal be referred for a full environmental review.
- Expresses concern regarding likely impacts on caribou calving grounds considering these caribou populations are already experiencing significant population declines.
- Notes the need to engage the QIA through analysis and discussion on the use of novel and existing mining technologies to ensure the assessment incorporates the appropriate use of Inuit Qaujimajatuqangit.
- Identifies that the Project is likely to arouse significant public concern, especially in, but not limited to, Iqaluit and Pangnirtung.
- Notes that the proposed area for the Project overlaps with an area frequently used by community members, and notes that the Project will likely impact their use of the land.
- Highlights that several of the technologies proposed are new to an arctic environment.
- Should an all-weather access road be planned, QIA and the communities must be engaged on the routing.
- Expresses concern for potential impacts to wolf, polar bear, Arctic fox, Arctic hare, peregrine falcon, eider duck, Canada geese, snow geese, rock ptarmigan and fish species, including Arctic char.
- Notes there is specific overlap of the Project and polar bear denning areas.
- Identifies potential for impacts to lakes known to be used by community members for harvesting fish, including Arctic char.
- Notes concerns regarding the use of “Future Smart Mining” technology and that De Beers has not fully explained the use of this technology or demonstrated it use elsewhere.

Oikiqtaaluk Wildlife Board (QWB)

- Notes they think the Proposal is likely to cause significant public concern, with caribou and other wildlife habitat overlapping with the Project area.
- Indicated they expect the Proposal to cause significant adverse ecosystem or socio-economic effects.
- Highlights the need for further information from De Beers prior to being able to properly assess the Proposal.

- Notes concern for the Project overlap with the South Baffin caribou population, which is harvested by community members from Iqaluit, Pangnirtung, and Kimmirut.
- Concerns that this Proposal may impact the cyclical recovery of Baffin Island Caribou populations.
- They further note that they expect to be engaged by the Proponent and NIRB through the review process as a formal intervenor.

5. Proponent's Commitments

The NIRB notes that, as is typical for this early stage in the assessment of the Proposal, the Proponent has not provided a formal list of commitments at this stage of the assessment. The Proponent has, however noted their intentions to work closely with stakeholders to ensure the Proposal is developed in a safe, effective and sustainable way to the benefit of all parties. The Proponent has noted that they expect to develop a full list of commitments during the Board's review of the Proposal based on feedback from all parties.

6. Extension of the Board's Issuance of the Screening Decision Report

During the NIRB's screening, additional time was required by the Proponent to provide the information necessary for the Board to screen the Proposal. Additional time was also required to for the NIRB to solicit and review the issues and concerns raised during the public comment period. Consequently, the NIRB was unable to provide its screening decision report to the responsible Minister(s) within 45 days as required by Article 12, Section 12.4.5 of the *Nunavut Agreement* and s. 92(3) of *NuPPAA*. Therefore, on October 21, 2022 the NIRB wrote to the Minister of Indigenous Relations and Northern Affairs Canada (CIRNAC) under s. 92(4) of *NuPPAA* seeking to extend the 45-day timeline for the provision of the Board's Report to November 14, 2022.

SCREENING OF THE PROPOSAL TO DETERMINE WHETHER A REVIEW IS REQUIRED

To determine whether a review of the Chidliak Diamond Mine Proposal was required, the Board analyzed whether the Proposal had the potential to result in significant adverse ecosystemic or socio-economic impacts.

The Board considered the factors listed in s. 90 of *NuPPAA* to evaluate the potential significance of the impacts. The Board also considered the application materials and supplemental information provided by the Proponent, the comment submissions of parties, and took particular care to take into account Inuit Qaujimajatuqangit shared with the Board, to complete its assessment and determination of the significance of impacts.

The following is a summary of the Board's assessment of the relevant factors to determine the potential for significant impacts with respect to the Proposal:

1. *The size of the geographic area, including the size of wildlife habitats, likely to be affected by the impacts.*

The proposed Project footprint would be located on Crown lands along the Hall Peninsula approximately 120 kilometers (km) northwest of Iqaluit and 200 km south of Pangnirtung,

with the potential to develop a winter road and an all-weather access road to Iqaluit for transportation of equipment. At this stage of planning, the Proponent has included several components of the Project that have not yet been confirmed but the scope is expected to be narrowed/refined through further study and stakeholder engagement, including but not limited to, whether a winter access road will be used. De Beers holds land leases for approximately 42,000 hectares of land consisting of 41 leases and 33 kimberlite pipes. De Beers proposes to mine these resources using a small, mobile, and modular facility that can be moved to new kimberlite pipes as mining is completed. The Proponent has also included a potential transmission line within the scope of the Proposal to stabilize site services; however, De Beers has not yet committed to this component remaining within the final scope of the project proposal.

The geographic area around the Project footprint has been noted to overlap with the South Baffin caribou herd, which several parties have noted has undergone significant declines in recent years. The proposed activities may also take place within habitats for many local and far-ranging wildlife species such as wolves, migratory birds, non-migratory birds, fish, and Species at Risk such as polar bears, as identified by the Proponent and interested Parties.

2. *The ecosystemic sensitivity of that area.*

The Project would occur in an area with no formal designation for wildlife protection or particular identified ecosystemic sensitivity. However, it is noted that important wildlife and their habitats occur within the spatial and temporal boundaries of the Proposal and could be subject to project-induced effects, such as the South Baffin Herd caribou calving and post-calving grounds for the South Baffin Herd. Important wildlife habitats identified within, or adjacent to, the proposed project area have been identified for:

- Caribou habitats and migration routes (summer and winter ranges);
- Polar bears;
- Arctic hare
- Wolves;
- Migratory and non-migratory birds and
- Fishes.

3. *The historical, cultural and archaeological significance of that area.*

There are known sites of historical, cultural and archaeological significance identified by the Government of Nunavut and the Qikiqtani Inuit Association, which are associated with the project area and are likely to be affected by the Proposal, with a reasonable potential for the presence of currently undocumented sites. The areas identified as having a cultural and historical interest to Inuit are:

- Sakunga Lake which is used by Inuit from Iqaluit and Pangnirtung for harvesting fish;
- Snowmobile routes used to access Sakunga lake; and
- A travel and hunting trail used to move between Iqaluit and Pangnirtung including multiple cabins along this trail.

4. *The nature, magnitude and complexity of the impacts; the probability of the impacts occurring; the frequency and duration of the impacts; and the reversibility or irreversibility of the impacts.*

As the Chidliak Diamond Mine Proposal involves the proposed construction/operation of mining infrastructure to mine several different kimberlite pipes, the nature of associated potential impacts from typical mining operations are generally considered to be known. However, as the Proposal also involves the use of new, remote technology, and may include installation and operation of a modular nuclear reactor for power generation, there are also other unknown impacts associated with the use of technology, which is novel to the Arctic and operated remotely. The probability for the impacts to occur is considered to be high as components of the Project, although modular and removable post operation, may have lasting impacts through operations. These components may have impacts on caribou and polar bear populations, while the frequency of impacts may be intermittent and ongoing for the life of the Project. As noted by the Proponent, with due care and appropriate management, impacts to the biophysical environment could be reversible and mitigable.

5. *Any other factor that the Board considers relevant to the assessment of the significance of impacts.*

The Proponent has indicated the Proposal has the potential for positive socio-economic effects on the Qikiqtani region, with particular emphasis on the City of Iqaluit and Pangnirtung, through the creation of jobs and contracting opportunities. Without additional information on the number and types of jobs as well as contracting opportunities available, parties and the Board will require additional information to assess the nature and extent of socio-economic effects in these communities and the Qikiqtani Region. This information would be expected to be developed and presented by De Beers in an Impact Statement for evaluation during the impact review process.

Views of the Board

In considering the factors as set out above in the screening of the Chidliak Diamond Mine Proposal, the NIRB has identified a number of issues below and has provided the following views of the Board regarding the potential for the Proposal to result in significant impacts.

Ecosystem, wildlife habitat and Inuit harvesting activities:

Issue 1: There is potential for the Proposal to have adverse impacts on caribou, polar bears, wolves, Arctic fox, various migratory and non-migratory birds as well as fish and the habitat that these animals rely on. The construction of mine sites, all-weather access roads, winter roads, construction and operation of the site, and transportation of personnel and equipment all carry a high potential to have lasting significant impacts.

Board views:

As discussed above in the assessment of factors relevant to the Proposal, potential impacts may occur within the footprint of approximately 42,000 hectares of potentially affected area, in the area of modular mining and equipment facilities, and in the zones of influence surrounding areas of project activities and components. The proposed timing of

the potential impacts is considered to be intermittent during periods of construction and continuous in various locations during periods of operation. Operations are expected to continue for more than 20 years. The Proponent and commenting parties have noted that the proposed project overlaps directly with habitat for the already sensitive South Baffin caribou herd, polar bear habitat as well as more general populations of various bird species, wolves and Arctic hare.

Board Recommendation:

The Board agrees with the submissions of the Proponent and parties and concerns expressed by the parties about the potential for project activities and infrastructure to have significant impacts on caribou, polar bear, birds, other wildlife and their habitats. The Board specifically highlights the potential for the Proposal to have effects on the calving grounds and migration routes of the South Baffin Island caribou herd, which is experiencing significant declines in recent years. On this basis, it is recommended that an in-depth review is required to fully assess the potential for the Proposal to have impacts on wildlife and wildlife habitat with emphasis on caribou, polar bears, and their habitat.

Issue 2: Potential adverse impacts to the freshwater aquatic environment including surface water quality and quantity, freshwater fish and fish habitat, and other aquatic organisms as a result of infrastructure construction, waste rock storage, storage and use of fuel, chemicals and explosives, the operations of the mine and associated infrastructure, and transportation activities for equipment and personnel.

Board views:

The proposed mining development would include the transportation of individuals and equipment both via air transport and ground transport. If the refined final scope of the Proposal includes an all-weather access road or a winter road, consideration of the impacts of the roads on water bodies along the route will also require assessment. The Proponent had indicated that mining infrastructure will be modular and moved around to various kimberlite deposits within the Project Development Area. As a result, the Proposal has not yet identified specific locations and priorities in terms of the specific kimberlites to be mined in succession. The potential for impact and use of waterbodies for the proposed activities for each kimberlite deposit will need to be assessed during the Board's review. During the construction phase, the Board anticipates there would be an elevated use of transportation along all-weather access and/or winter roads, and with the operations stage expected to last over 20 years, there is likely to be sustained use of, and activities adjacent to, freshwater bodies that are traditionally used by Inuit for harvesting. These issues were highlighted by both the QIA and the GN during the commenting period, and are expected to be assessed in greater depth during the review process undertaken by the Board.

Board Recommendation:

It is recommended that a full environmental review and in-depth assessment is required to adequately assess the potential for the Project to have significant adverse effects on

surface water quality and quantity, freshwater fish and fish habitat, and other aquatic organisms.

Issue 3: Potential adverse impacts to vegetation, soil, permafrost and terrain due to the development and operations of a potential all-weather road, a potential winter access road, mining and kimberlite processing activities, development of camp facilities and associated infrastructure, both temporary and permanent, storage and use of fuel and chemicals and explosives.

Board views:

These types of potential adverse impacts may occur within the spatial boundaries of proposed road transportation corridors, camps, quarries, mining and kimberlite processing and associated infrastructure. The primary effects of the proposed project on vegetation, soil, and terrain would be from quarrying activities, the construction of roads, camps, and mining and kimberlite processing facilities and associated dust. Loss of vegetation is considered temporary but may last for an extended period due to the long-term nature of the ground disturbance for specific activities, while impacts to soil are considered moderate due to erosion potentially occurring during the construction phase and possible effects on permafrost due to operations. The Proponent would be expected to complete a remediation plan as part of their Final Impact Statement (FIS) which would aim to remediate impacted soil; however, until such a plan is proposed through the FIS, it is not possible for parties or the Board to fully assess its efficacy.

Board Recommendation:

It is recommended that a full environmental review and in-depth assessment of the potential impacts of the Proposal is required to determine the potential for the project activities and infrastructure to have adverse effects on vegetation, soil, and terrain.

Issue 4: Potential adverse impacts to air quality could result from project activities, including dust and emissions generated by the use of explosives to blast rock, dust from the use of heavy equipment for site preparation, quarries, potential road construction, and use of associated mining and kimberlite processing infrastructure.

Board views:

As noted above, potential impacts to air quality may occur within the spatial boundaries of the proposed road transportation corridor, camps, quarries, and associated mining and kimberlite processing infrastructure. There is potential for adverse impacts to air quality from site preparation, use of heavy equipment and machinery, and blasting associated with the project, which may be limited to within the project footprint with a low probability of extending beyond the geographic area.

Board Recommendation:

It is recommended that a full environmental review and in-depth assessment of the potential impacts of the proposed project is required to determine the potential for adverse effects on air quality.

Issue 5: Potential negative effects on Inuit traditional harvesting and other activities due to impacts on caribou herd populations and changes in migratory patterns, polar bear populations, as well as the use of traditional travel routes and local water bodies for harvesting. Further, potential impacts may result because of changes in Inuit land use through the use of proposed infrastructure (*i.e.* roads).

Board Views:

The proposed project would involve the development of road and mine infrastructure along a known community travel route between Iqaluit and Pangnirtung as well as near waterbodies known to be used for harvesting by community members. The Board notes that harvesting activities and general land use throughout the project area occurs at present, however the scale of use is not broadly known. However, the development of an all-weather access road or winter road could increase access to these areas, increasing feasibility for establishment of outfitting camps or private cabins, which could lead to increased harvesting by Inuit and other groups in the area.

Board Recommendation:

It is recognized that the Proposal may alter Inuit land use and land use by other groups in the south Baffin region, particularly along the Hall Peninsula. It is recommended that a full environmental review and in-depth assessment of the potential impacts of the proposed project is required. The Board also notes that more in-depth consideration is required with respect to the potential for impacts on caribou as a result of potentially increased access to the area as well as adverse impacts to wildlife harvesting activities from the development itself, traditional land use and the availability and safety of country foods for Inuit.

Socio-economic effects on Inuit:

Issue 6: Potential significant positive socio-economic impacts associated with the economic benefits from the development of a mine in the region.

Board Views:

The Proposal may result in increased job opportunities for community members through the construction, development, operations and closure phases. The Proposal may also provide increased training and business contracting opportunities for individuals working at the mine and Inuit businesses in the territory. However, the FutureSmart Mining approach for this operation is expected to reduce the overall number of personnel required on site and the Board anticipates that this approach may provide non-standard training and job opportunities for workers to work remotely from nearby communities.

Board Recommendation:

It is recognized that the Chidliak Diamond Mine Proposal may offer opportunities for significant economic benefits to accrue to the Qikiqtani Region, and Nunavut more broadly. It is recommended that a full environmental review and in-depth assessment of

the potential impacts of the Proposal is required to adequately assess the nature and extent of these effects.

Significant public concern:

Issue 7: The project proposal is likely to arouse significant public concern.

Board Views:

The activities, undertakings and infrastructure associated with the proposed Project would occur in areas that are habitat for several wildlife species, including several culturally important species such as caribou and polar bear. This concern has been noted by several commenting parties and it is clear that the Proposal could arouse significant public concern due to the potential impacts to wildlife, harvesting and traditional land use activities. It will be imperative for the Proponent to demonstrate to the affected communities and the public generally that the potential impacts of project components have been adequately evaluated and can be appropriately mitigated.

Board Recommendation:

The Proposal has the potential to cause significant adverse ecosystemic effects and may be a cause of significant public concern. It is recommended that the magnitude of concern be clarified and addressed through further opportunities for the affected communities and public to provide comment on the proposed project during a full impact review process.

Technological innovations for which the effects are unknown:

Issue 8: There are potential unknown effects on the land and surrounding areas due to the proposed use of novel technologies including remote mining, remote operation of vehicles and equipment, construction and use of modular buildings and processing facilities, as well as the potential use of a modular nuclear reactor for power generation.

Board Views:

Although mining infrastructure is not new to Nunavut and the North, many of the proposed plans and techniques in the Proposal are new to Nunavut, and it will be important for the Proponent to demonstrate adequate research and planning of these technologies to allow the affected communities, and the public generally, to build confidence in their approach, especially with respect to demonstrating consideration of the dynamic Arctic environment and recognizing the effects of climate change.

Board Recommendation:

It is recommended that a full environmental review and in-depth assessment is required to ensure mitigation techniques and the novel technology chosen are appropriate, adequately reflect, and can be adapted to rapidly changing Arctic conditions, and would effectively limit the potential for adverse effects resulting from the Proposal should it be approved to proceed.

PARTICULAR ISSUES OR CONCERNS IDENTIFIED BY NIRB

As indicated in the previous section, the Board accepts that the commenting parties have identified the key issues and concerns about the potential for significant adverse effects associated with the type of project development proposed in the Chidliak Diamond Mine Proposal, as set out in Article 12, Section 12.4.4(b) of the *Nunavut Agreement* and s. 92(2)(b) of *NuPPAA*. The Board also highlights the importance of the Proponent working with the potentially affected South Baffin communities to support their understanding of the activities, undertakings and infrastructure being proposed, and the potential for the Proposal to have significant positive and negative impacts. NIRB further notes that due to the limited amount of information provided in the Proposal as screened, the commenting parties and the Board have identified several concerns and outstanding questions regarding the Proposal including requiring more information regarding the refined scale and scope of the Proposal and more extensive information about the new technology De Beers proposes to use. The Board expects the Proponent to provide these details as the review of the Proposal proceeds.

1. Availability of Participant Funding

It is the NIRB's opinion that there are several important factors associated with the further review of the Proposal that highlight the need for participant funding during the assessment, including: the range and scope of the potential impacts of the Proposal, the novelty of the technology proposed to be used, and the capacity issues identified by the Board, community organizations and community members during recent NIRB assessments.

NIRB DETERMINATION

The Board has carefully considered the factors set out in s. 90 of *NuPPAA*, taking into account the information the Proponent and parties have provided to date, as well as providing its determination on the significance of potential adverse ecosystemic or socio-economic impacts of the Proposal.⁴ It is the Board's determination that, as set out in Article 12, Section 12.4.4(b) of the *Nunavut Agreement* and s. 89(1)(a)(i) and (ii) of *NuPPAA*, De Beer's Chidliak Diamond Mine Proposal requires a Review under Article 12, Part 5 or Part 6 of the *Nunavut Agreement* and Part 3 of *NuPPAA*.

CONCLUSION

This constitutes the Board's Screening Decision Report with respect to the De Beers Canada Inc's "Chidliak Diamond Mine" project proposal. The NIRB remains available for consultation with the responsible Minister regarding this Report as necessary.

⁴ Significance was assessed by the Board with regard to the factors outlined in s. 90 of *NuPPAA*.

Dated November 14, 2022 at Baker Lake, NU.

A handwritten signature in blue ink, appearing to read "M. Kaviq Kaluraq". The signature is fluid and cursive, with the first letter of each word being capitalized and prominent.

Marjorie Kaviq Kaluraq, Chairperson

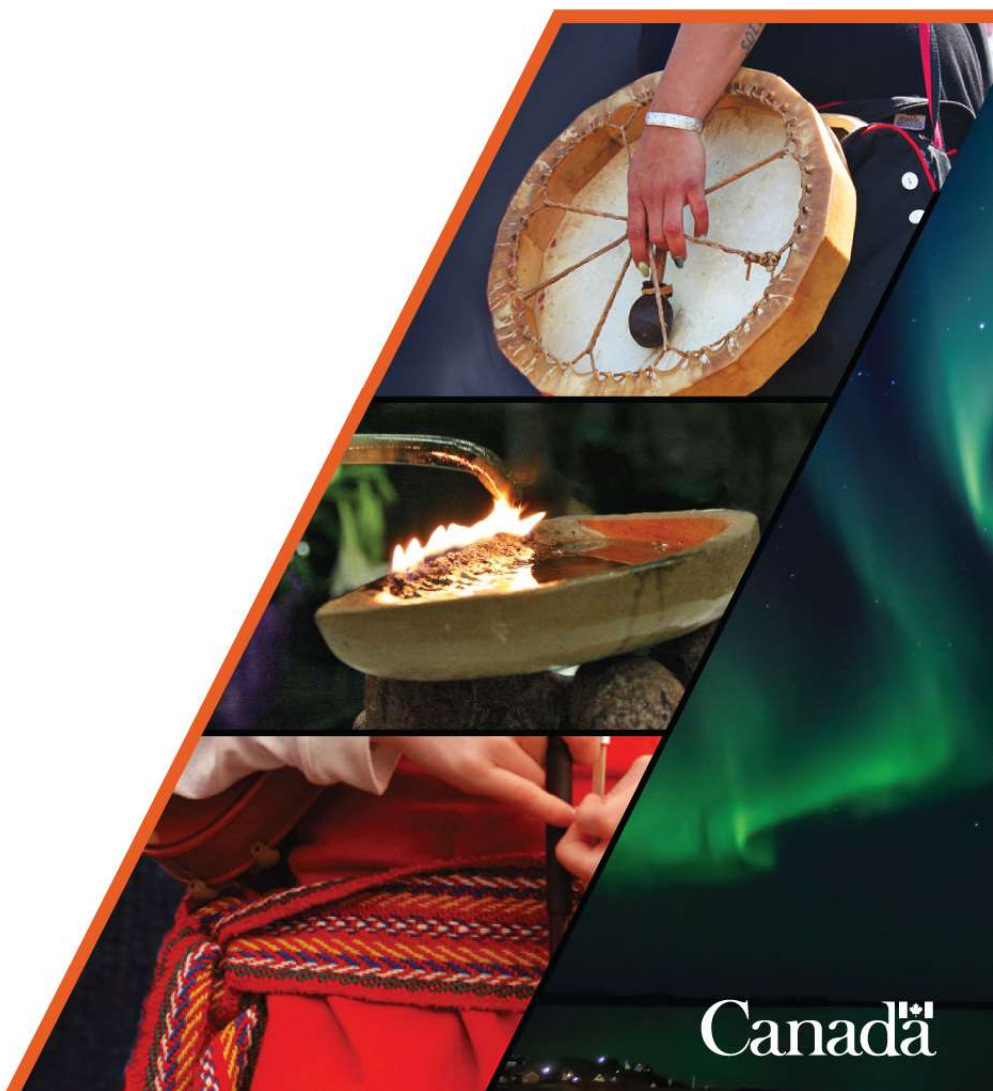
Attachment: Appendix A: Comment Submissions (NIRB File No. 22MN025)

Appendix A
Comment Submissions (NIRB File No. 22MN025)



CIRNAC Comments to NIRB

Re: Notice of Screening for De Beers Canada Inc.'s "Chidliak Diamond Mine" Project Proposal





Nunavut Regional Office
P.O. Box 100
Iqaluit, NU, X0A 0H0

Your file - Votre référence
22MN025
Our file - Notre référence
GCdocs# 106094543

October 6, 2022

Cory Barker
Acting Manager, Impact Assessment
Nunavut Impact Review Board
P.O. Box 1360
Cambridge Bay, NU, X0B 0C0
via NIRB public registry

Re: Notice of Screening and Comment request for De Beers Canada Inc.'s "Chidliak Diamond Mine" Project Proposal

Dear Cory Barker,

On September 15, 2022, the Nunavut Impact Review Board (NIRB) invited parties to comment on De Beers Canada Incorporated's "Chidliak Diamond Mine" project proposal. Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) appreciates the opportunity to provide comments and offers the responses below as it pertains to the NIRB's request:

Any matter of importance to the Party related to the project proposal.

CIRNAC #1: Project Scope and Public Engagement

The Project Summary document states that "De Beers has provided a Project Proposal for review by the Nunavut Planning Commission and NIRB. De Beers will work with NIRB to undertake the scoping and guidelines phase of assessment throughout 2022. It is understood that the Project Proposal will later be refined following completion of the Pre-Feasibility Studies (PFS) and that a detailed Project Description will be provided at that time for consideration by NIRB as part of the Impact Assessment."

CIRNAC notes that, due to the nature, scale and breadth of proposed project activities and components, the activities outlined within the Project Proposal have the potential to arouse significant public concern, and cause significant adverse eco-systemic and socio-economic effects, moreover, those effects may not be highly predictable in the local context. CIRNAC agrees that submitting a detailed Project Description to the NIRB for review is an appropriate avenue for public engagement. Therefore, CIRNAC is of the understanding that the Project requires an Impact Assessment to engage the public, as well as to identify the project's scope, and measures to mitigate potential adverse eco-systemic and socio-economic effects of the Project.





CIRNAC #2: Potential for Positive Effects to Inuit Through Employment, Training, and Procurement Opportunities

CIRNAC recommends that the Proponent prioritize the employment and training of local Inuit located in Iqaluit and Pangnirtung. In addition CIRNAC recommends that the proponent prioritize procurement opportunities for Inuit-owned businesses in these communities, when implementing project activities. Such efforts will allow for positive effects to be realized by community members and the local Inuit population. As a result, Inuit and Inuit-owned businesses situated in Iqaluit, Pangnirtung and other local communities should be prioritized in any project-related employment, training, and procurement opportunities that may be made available.

CIRNAC #3: Consultation with Interested Parties

CIRNAC recommends the Proponent consult with the City of Iqaluit, Hamlet of Pangnirtung, other interested hamlets, the Amaruq Hunters and Trappers Organization, the Pangnirtung Hunters and Trappers Association, other interested Hunters and Trappers Organizations and Associations, and the Qikiqtani Inuit Association (QIA). Issues that should be considered as part of any consultation activities should include:

- Incorporation of Inuit knowledge and Inuit Qaujimajatuqangit into project activities;
- Mitigation measures designed to reduce disturbances to wildlife and the environment;
- The experience of community members who participate in traditional and non-traditional activities within or in close proximity to the project area;
- Training and employment opportunities for community members;
- Procurement opportunities for local businesses; and
- Regular updates on the status of project activities.

CIRNAC appreciates the opportunity to provide comments and looks forward to working with the NIRB and the Proponent throughout any further review phases related to this project. Should you have any questions, please contact Richard Bingley by e-mail at richard.bingley2@rcaanc-cirnac.gc.ca.

Sincerely,

Felexce Ngwa
Manager, Impact Assessment



Environmental Protection Operations Directorate
Prairie & Northern Region
5019 52nd Street, 4th Floor
P.O. Box 2310
Yellowknife, NT X1A 2P7

ECCC File: 6100 000 036/004
NIRB File: 22MN025



October 6, 2022

via email at: info@nirb.ca

Karen Costello
Executive Director
Nunavut Impact Review Board
P.O. Box 1360 (29 Mitik)
Cambridge Bay, NU X0B 0C0

Dear Karen Costello:

RE: 22MN025 – DeBeers – Chidliak Diamond Mine – Notice of Project Screening

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Impact Review Board (NIRB) regarding the above-mentioned Notice of Project Screening for the proposed Chidliak Diamond Mine.

ECCC has considered the potential environmental effects of the proposed project based on our mandate pursuant to the *Canadian Environmental Protection Act*, the pollution prevention provisions of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*. ECCC is of the opinion that the proposed project warrants an in-depth analysis in relation to our mandate, specifically: water quality, air quality, environmental emergencies, migratory birds, species at risk, and climate change. ECCC's technical expertise will support the NIRBS assessment of this project's potential effects in the receiving environment and on valued ecosystem components.

If you need more information, please contact Eva Walker at eva.walker@ec.gc.ca.

Sincerely,

Eva Walker
Senior Environmental Assessment Officer

cc: Jody Small, Acting Head, Environmental Assessment North (NT and NU)





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Cory Barker
Acting Manager, Impact Assessment
Nunavut Impact Review Board
P.O. Box 1360 (29 Mitik)
Cambridge Bay, Nunavut
Sent via email to: info@nirb.ca

October 6, 2022

Re: QIA Screening Comments on Proposed Chidliak Diamond Mine Project (NIRB #22MN025)

Dear Cory Barker and the Nunavut Impact Review Board,

The Qikiqtani Inuit Association is providing this letter of comments as part of the Nunavut Impact Review Board (NIRB) screening process for the De Beers' Chidliak Diamond Mine (Chidliak or the Project) proposed for Qikiqtani South Baffin region. We have reviewed the five documents and video on the NIRB online public registry. This letter outlines the QIA's responses to the five questions posed by NIRB in the order they were asked. A detailed response to each question is provided as an appendix.

The QIA has several concerns regarding this proposed Project and has described how the Project as currently proposed has a high likelihood to cause significant adverse effects on important Inuit harvesting and travel areas, and the ability to access and use fish and wildlife populations.

We are particularly concerned about likely adverse impacts on caribou calving grounds that are already experiencing serious population declines. This is a partial list of potential impacts only, but even this partial list indicates that the rights and interests of Inuit, which the QIA is required to protect and promote, may be at risk should the project proceed as currently proposed. Inuit from Iqaluit and Pangnirtung in particular may be significantly concerned about the Project as proposed.

De Beers proposes several innovative mining technologies that are untested in an Arctic environment and/or new to Baffin Island. And many of these technologies as well as conventional methods and infrastructure options are undergoing analysis by De Beers to identify preferred options. The QIA must be engaged in this process to ensure that any preferred option(s) adequately reflect Inuit interests, priorities, including adequate integration of Inuit Qaujimajatuqangit (IQ).

Additionally, significant information gaps need to be filled to understand potential Project-receiving environment interactions and develop effective mitigation and monitoring design,



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management planning, and follow-up programs tailored to the novel project technologies used in this challenging and sensitive environment.

For these reasons and the reasons detailed in Attachment 1, QIA recommend that the proposed De Beers Chidliak Diamond Mine proceed to a full assessment by the NIRB. The QIA requires more fulsome assessment of the proposed Project prior to making any determinations on whether it is supportable. The QIA will engage directly through that process to make sure that the rights and interests of Inuit are protected and promoted.

Thank you for your consideration. Don't hesitate to contact me for further details or other inputs.

Sincerely,

Chris Spencer
Manager, Regulatory Affairs



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QIA Screening Comments on Proposed Chidliak Diamond Mine Project

The project proposal is likely to arouse significant public concern

While the proposed Project is exempt from the Draft Nunavut Land Use Plan (DNLUP), QIA is concerned that the Project is proposed within the proposed Limited Use area designated to protect caribou populations in their most vulnerable calving and post-calving life stages. More information on this concern is provided in the next section. A fulsome review is required to understand the range of concerns, assess potential effects on and to address them appropriately in a public review process.

The area is also used by communities for traditional subsistence hunting and travelling between both communities and cabins. These land use activities are likely to be adversely affected by the proposed Project, where any disturbance to animal distribution, abundance, the ecosystem function, changes to glaciers and vegetation, and dust accumulation will negatively affect Inuit harvesting access, enjoyment, success, and associated harvesting and cultural rights.

De Beers also outlines several alternative options for mining methods, kimberlite disposal, mine processing, energy generation, transmission, storage, transportation, telecommunications, among others. Several of these approaches have never been used in an Arctic environment, let alone in Nunavut, and will raise concern about the risks associated with them. QIA is interested in engaging with De Beers and affected communities on this alternatives analysis and would build upon the DeBeers Alternatives Investigation noted on page 38 of the Project Description. If an all-weather



road and/or transmission line is selected as the preferred means, QIA and communities' involvement in analysis of routing options will be required.

The Project proposal is likely to cause significant adverse effects to wildlife, wildlife habitat and Inuit harvesting

The Project is likely to cause significant adverse effects on wildlife, wildlife habitat, and Inuit harvesting, within the Project study area and beyond. QIA is particularly concerned about the likely significant adverse effects to caribou and Inuit harvesting activities.

The area likely to be impacted by the Project is used for subsistence hunting and travelling, where activities mainly take place in the Ukiaq (Winter) using snowmobiles. A travel and hunting trail is used to move between Iqaluit and Pangnirtung through the Hall Peninsula. Several cabins are situated along this route and are used for shelter. The trail splits into two at McKean River Cabin with one branch leading north to Pangnirtung and the other leading northeast to hunting and fishing areas.

The proposed Project is likely to adversely impact Arctic wolf, Polar bear (closer to the coast), Arctic fox and Arctic hare, bird species such as Perigeon falcon, Eider duck, Canada geese, Snow geese and Rock ptarmigan, and impact fish species such as Arctic char. It is widely known by Inuit familiar with this region that these animals have great senses and live in quiet and remote areas free of noise and disturbances. They are also very sensitive and skittish. These animals can feel impacts at far greater distances than humans do.

The proposed Project area is near a Polar Bear denning area located to the northeast of the area along the coast and inland. These dens are used in the winter months. Polar Bear are harvested by Inuit, the proposed Project being in close proximity to dens may impact population health and abundance and, in turn, impact Inuit ability to access Polar Bear harvesting grounds and harvest. In the Project Description, De Beers also acknowledges that Inuit from Iqaluit and Pangnirtung have identified use of the Project Area for bird and egg harvesting, fish harvesting and wildlife harvesting (p.30). Bird eggs that are harvested by Inuit include mountain sorrel and snow goose and murre eggs. Inuit ability to access and harvest in these sites will likely be reduced by the Project as proposed.

Fishing activities will also likely be affected. There are only a small handful of fishing areas that are used by families that have high fish abundance. Community members often travel from Iqaluit across the Hall Peninsula by skidoo to reach Iqaluit Lake and Sukanga – both highly valued fishing areas. These routes will be directly impacted by the proposed Project if it were to proceed. There are many waterbodies and watersheds within the proposed project area and access route that have



not yet been surveyed that have high importance and value to Inuit in this region. More information on harvesting locations, bird population abundance and distribution, and project components and activities are needed to understand these potential impact pathways.

The proposed Project has the potential to impact caribou and the ecosystem in which they play a critical role. Inuit rely on the caribou as a source of country foods, which are foundational to Inuit food security and sovereignty, nutrition, cultural practices, and economy. It is understood by Inuit in this region that the caribou population around South Baffin has been sparse in the last 20 years. Inuit have always known the caribou population cycle. It is now an important time to invite the animal back and show them respect so that they may stay for as long as possible. The proposed Project has the potential to contribute to continued caribou population declines in South Baffin.

We acknowledge DeBeers' commitment on page 28 of the Project Description to work with scientists and Inuit Qaujamajatuqangit holders to develop measures to protect caribou in the area and to contribute to recovery of caribou in the region through research and collaborations. However, the Barren-ground caribou population is declining and recently designated by the Canadian Minister of Environment and Climate Change as "Threatened" under the federal *Species At Risk Act*. According to COSEWIC, Barren-ground caribou population extends from northeast Alaska to Baffin Island and has declined from more than 2 million individuals in the early 1990s to about 800,000 in 2018 with Baffin Island population abundance suffering sharper declines than average declines and may be changing the way they use the calving grounds (COSEWIC, 2018, p.19). The proposed Project is in an area known to be important for calving and post-calving when caribou are sensitive to disturbance. This area is being proposed as a "Limited Use" area by the current Draft Nunavut Land Use Plan (NLUP) intended to restrict disturbance in these important areas critical for healthy caribou populations. Disturbance of caribou at these vulnerable life stages can lead to "higher calf mortality due to reduced nursing time or cow-calf abandonment. Additionally, adults are affected by displacement from areas with high quality vegetation" (DNLUP, 2021, p.18). Industrial development and habitat fragmentation is considered a key threat to the Barren-ground caribou. Adding the proposed Project to an already declining and threatened population in such an important area for calving could exacerbate population declines and lead to a significant adverse effect.

Caribou meat is central to Inuit nutrition and diet. Any declines in populations or resulting restrictions in harvest would threaten Inuit food security, particularly for Iqaluit and Pangnirtung residents, as well as adversely impact Inuit harvesting rights. Inuit harvesters from Iqaluit and Pangnirtung are already being forced to travel farther away from communities in order to find caribou to harvest and are traveling by boat. In fact, the Hall Peninsula is often the first place harvesters go to search for the animal. The physical infrastructure, potential for pollution, noise, and dust may also result in avoidance of the area for harvesting activities. In conversations with QIA staff, community members have also noticed caribou disturbance resulting from De Beers



exploration and development activities in the summer of 2022 while caribou hunting by boat and hiking inland. The hunters observed a helicopter in two instances that interfered with their hunt and caused immense frustration. The Project is also likely to adversely impact Inuit harvesting within and beyond the Project Area due to the migratory nature of the Barren-ground caribou. More information on harvesting locations, caribou population abundance and distribution, and project components and activities are needed to understand potential impacts.

The potential project effects are likely to result from a variety of project components and activities, including: (a) energy generation options, such as hydroelectric, wind, hydrogen cell, micro-modular nuclear reactor, and solar energy, (b) all-season and winter road options connecting the project to Iqaluit, (c) the transmission line option, (d) on-site transmission lines and roads connecting the air strip, buildings, facilities, and mining activity, and (e) mining activities including blasting, large vehicle traffic, and a variety of other activities causing physical and sensory disturbances to wildlife.

The proposed access routes to the project have the potential to impact the ecology along this route and how terrestrial wildlife inhabit and use the land. The potential impacts include but are not limited to: vegetation loss resulting in dust accumulation, habitat loss, benthic ecology of ponds and lakes that potentially contain fish, caribou calving/grazing area loss, permafrost degradation, glacier loss, erosions along rivers.

Dust from an all-season road is a concern for the QIA in the existing Mary River Mine Project and should be considered in any alternatives analysis. Dust impacts are of particular concern as dust deposition on vegetation and water bodies can impact an entire ecosystem, threatening Inuit ability to harvest important country foods, such as berries, Arctic char and caribou, which adversely affects their food security. Dust and sediment deposition has an unknown effect on Arctic char egg survival, emphasis must be placed on understanding how long-term use of an all-season road and mining activities can increase dust deposition in water bodies and if adverse impacts are likely to occur to Arctic char which is an important country food for Inuit. All-season roads also may result in collisions with animals and increases in noise/habitat disturbance.

The project is likely to cause significant adverse eco-systemic and socio-economic effects

The Project is likely to cause significant adverse socio-economic and eco-systemic effects. As noted in the section above, impacts to Barren-ground caribou, Arctic char, and other species have the potential to have ecosystem-wide impacts. Effects on harvesting will have associated important socio-economic effects, such as:

- Limiting transmission of Inuit Qaujimajatuqangit (IQ) and Inuit cultural traditions and values to future generations



- Creation or exacerbation of food insecurity within communities, especially Iqaluit and Pangnirtung, which is associated with declines in access to healthy foods, declines in nutrition and health, and increase in cost of living to pay for imported and costly grocery store food.

In the Project Description, De Beers notes that the Pangnirtung Trail connecting Iqaluit to Pangnirtung is a major travel route used by communities to visit friends and family, and other overland trails across the Hall Peninsula north and south of the Chidliak Project. As noted above, this trail is also used for hunting and several cabins are situated on it. There are two branches and they lead to communities as well as hunting and fishing areas. More information is needed to understand potential interactions between the proposed Project and associated infrastructure and the existing trails. Even if there is no direct overlap, the potential for noise, vibration, light, and dust impacts may affect use of the trail. Additionally, the high concentration of archeological sites in the area that De Beers has identified and summarized on page 64 of the Project Description highlights the importance of this area for Inuit use. A Project-specific, Inuit-driven IQ and land use study similar to that used for the recent NIRB review of the proposed Mary River Mine Phase 2 Project proposal (the “Tusaqtavut” studies) is necessary to derive a better understanding of past, present and desired future use of the Project affected area by residents of Iqaluit and Pangnirtung, and what constraints the Project may create on these uses and rights practices.

Significant adverse economic effects may result from the project, where the result may exacerbate existing challenges facing the region, including high reliance on the mining sector over other potential economic opportunities making the community vulnerable to changes in the sector, and local and regional wage disparities. Long-term employment is often non-existent post closure for mines and employment during operation is often sourced out of territory, limiting local benefits from mining projects. The Proponent has identified that there is a low population and low percentage of skilled tradespersons available in the north to draw upon to work in the proposed mine (p.39) and the use of SmartMine technology appears to allow workers to stay home and work in mining activities.

We recognize that the proposed remote mining technology is partly designed to reduce the need for transient workers and associated impacts, however, the technology remains unknown to us and to residents of the affected communities and De Beers provides no details on workforce needs compared to the existing population of communities closest to the proposed site. Even with the use of remote technology, any new mining project is likely to result in some increases in transient workers. These population changes strain local health and recreation services and may also lead to a higher cost of living and inequality. These social outcomes are associated with increases in substance abuse and poor health outcomes.



(867) 975-8400 1-800-667-2742 (867) 979-3238 info@qia.ca www.qia.ca @Qikiqtani Inuit @QikiqtaniInuit @Qikiqtani Inuit



- Introducing satellite, fiber optics, microwave, or other telecommunications systems to enable remote mining activities;
- Installation of a small modular nuclear reactor and plans for waste storage/transport/disposal;
- Reliability or impacts associated with other low carbon energy production systems and storage solutions;
- Shipping supplies and product by air, including potential use of an 'airship' (p.50); and,
- Introducing a processing plant that is designed to move from ore body to ore body.

De Beers proposes to use “FutureSmart Mining” technology in Nunavut, but has not demonstrated that this technology is proven or widely used, or what potential uncertainties or risks exist in adopting it. We understand that this is a trademark used by AngloAmerican PLC and its subsidiaries like De Beers, but combines a number of approaches that are being adopted in the mining sector, such as remote operated vehicles operations. These kinds of operations require a reliable telecommunications system that must be installed and maintained to function in southern Baffin Island. These operations are also vulnerable to cybersecurity risks (Huq, n.d.). Smart energy systems have been implemented at the Raglan Mine in Nunavik (TUGLIQ, 2016) and resulted in decreases in diesel use and carbon emissions, information on the adverse impacts of wind turbines, hydroelectric dams, solar panels, micro-modular nuclear reactors and hydrogen cells in northern environments is very limited (Haynes, 2022). Overall, there are extensive uncertainties about what alternative means to undertake the Project are appropriate in the South Baffin Island context, another major reason to conduct a full environmental assessment.



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References

COSEWIC. 2016. COSEWIC assessment and status report on the Caribou Rangifer tarandus, Barren-ground population, in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xiii + 123 pp. (<http://www.registrelep-sararegistry.gc.ca/default.asp?lang=en&n=24F7211B-1>)

De Beers Group. 2022. "Chidliak Diamond Mine Project Proposal Version 1.1," August 10, 2022.

H. Haynes. 2022. "Caribou and Wind Turbine Annotated Bibliography," May 16, 2022. https://www.northerncaribou.ca/site/assets/files/1531/annotated_bibliography_caribou_and_wind_turbines_march_16_2022.pdf.

Huq, Numaan. N.d. "Cyber Threats to the Mining Industry: Trend Micro Forward-Looking Research Team". Accessed October 6, 2022. <https://documents.trendmicro.com/assets/wp/wp-cyber-threats-to-the-mining-industry.pdf>

Nunavut Planning Commission. "Leading the Way Through Land Use Planning: Nunavut Land Use Plan," July 2021. https://www.nunavut.ca/sites/default/files/21-001e-2021-07-08-2021_draft_nunavut_land_use_plan-english_0.pdf.

TUGLQ Energy Co. 2016. "EcoENERGY Innovation Initiative Demonstration Component - Public Report," <https://tugliq.com/wp-content/uploads/2019/09/2016-11-11-tugliq-raglan-public-report-en.pdf>.



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Nunavut Kavamat
Gouvernement du Nunavut

(867) 975-7828
 (867) 975-7870
www.gov.nu.ca

Government of Nunavut Detailed Comments

The Government of Nunavut (GN) believes this project can provide substantial socio-economic benefits to the South Baffin region, specifically for the communities of Pangnirtung and Iqaluit. As such, there will be significant public interest in the development of this project and the potential impacts and opportunities it will create. This Project is likely to arouse significant public concern due to potential impacts to caribou and polar bear as well as their habitats. There may be a likely possibility of public concern due to the potential of greater polar bear-human interactions.

The socio-economic benefits have the potential to be great. There are also potential adverse socio-economic impacts that may require further assessment and mitigation measures. The ecosystemic effects of the proposed Project are largely uncertain at this time due to the limited scope of the Proposal submitted. The Project and its components have the potential to cause impacts to the South Baffin caribou herd and the Davis Strait polar bear subpopulation.

As stated in the detailed comments below, the proposed Project has the potential to have adverse effects on wildlife habitat and Inuit harvesting activities. The proposed Project location and all-weather-road traverse important caribou habitat that may be negatively impacted.

DeBeers is proposing unique employment opportunities with the Chidliak project. The GN looks forward to further details on these employment models and other opportunities for the proponent and GN to collaborate on.

Whether the effects are highly predictable and mitigatable is difficult to assess at this stage. The Proponent has not provided a detailed proposal that clearly outlines the technology being utilized and its potential impacts.

The GN recommends that given the magnitude of the proposed project, some of the issues identified, regarding caribou and polar bear habitats and the unique proposals for employment, that a Part 5 review is required.

GN-01: RANGE OF PROPOSED ACTIVITIES	
Department	Department of Environment
Organization	Government of Nunavut
Subject/Topic	Variety of Proposed Project Activities
References	<ul style="list-style-type: none">NIRB Notice of Screening for “Chidliak Diamond Mine” Proposal – NIRB File No. 22MN025

	<ul style="list-style-type: none"> De Beers Group. (2022). Chidliak Diamond Mine Project Proposal, Version 1.1, August 10, 2022.
CONCERNS	
<p>The Project proposal presents many different options that the Proponent is considering as part of their alternatives assessment and forthcoming Environmental Impact Statement (EIS). For example, the Proposal contains a range of linear infrastructure, including a winter trail, winter road, all-season-road, and a separate power transmission line. The Proponent may construct and operate some, or none, of those aspects because a fully air-supported Project is also considered. The same is true for power generation at the site. The Proponent is considering a broad set of options, including renewables (solar, wind, hydro), hydrogen, and even a micro-nuclear reactor. Similarly, the methods of mining vary considerably, including vertical shaft mining, conventional open pit, and underground mining.</p> <p>It is encouraging to see creative thinking and a stated goal of low-carbon, low-impact solutions to the challenges of mining in Nunavut. However, each of the proposed alternatives has pros and cons and different potential impacts to the environment and wildlife. Without having a clear proposal and prioritized alternatives, along with the accompanying details for each, it is difficult to provide comments on the Proposal, as presented.</p>	
SUGGESTIONS AND RECOMMENDATIONS	
<p>The proposed Project is of a scale and intensity to both warrant public concern and have potential adverse environmental impacts. Without additional details provided within an EIS, as part of a Part 5 review, the GN is limited in its assessment of these impacts.</p> <p>The GN will provide additional review and comment on the Project proposal following development and submission of an EIS.</p>	
ADDITIONAL COMMENTS	
N/A	

GN-02: POTENTIAL IMPACTS TO CARIBOU	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Potential Impacts to Caribou, Caribou Habitat, and Inuit Harvesting

References	<ul style="list-style-type: none"> • NIRB Notice of Screening for “Chidliak Diamond Mine” Proposal – NIRB File No. 22MN025 • Agnico Eagle Mines (AEM) Ltd. (2020). Meadowbank Mine 2019 Wildlife Monitoring Summary Report. Final. Appendix 52 of the Meadowbank Mine Annual Report. • Boulanger, J., R. Kite, M. Campbell, J. Shaw, and D.S. Lee. 2020. Analysis of Caribou Movements Relative to the Meadowbank Mine and Roads During Spring Migration. Government of Nunavut, Department of Environment, Technical Report Series – No:01-2020. 31 July 2020. • De Beers Group. (2022). Chidliak Diamond Mine Project Proposal, Version 1.1, August 10, 2022. • Valkenburg, P., David G. Kelleyhouse, D. G., Davis, J. L., and Ver Hoef, J. M. 1994. Case history of the Fortymile Caribou Herd, 1920-1990. Rangifer 14(1) 11-22. • Vistnes, I. and Nellemann, C. 2001. Avoidance of Cabins, Roads, and Power Lines by Reindeer during Calving. Journal of Wildlife Management 65(4):915. • Wilson et al. (2016). Effects of roads on individual caribou movements during migration. Biological Conservation 195: 2–8.
CONCERNS	
<p>The proposed Project overlaps with the range of the South Baffin caribou population. Given the poor status of this population at present, potential impacts from additional human activities require careful assessment.</p> <p>Caribou harvest locations presented in the proposal (1996-2001, Fig. 2.2) may be useful for generally assessing which communities are likely to experience Project impacts on harvesting activities. However, harvested populations have changed substantially in the last 20 years, and harvest is not a proxy for caribou habitat use. Similarly, as populations have changed, Inuit harvesting patterns and land use have also changed.</p> <p>The proposal notes (Table 5.1) aerial survey programs for caribou in the vicinity of the site from 2009-2014 (6 years), and that these surveys returned low overall abundance estimates. During this time, a harvest moratorium and later a limited, all-male harvest were imposed to aid herd management and recovery. While it is expected that herd numbers will rise during the projected life of the Project, caribou numbers during the development of an impact assessment may not be representative of past or future habitat use.</p> <p>Due to uncertainties about the final Project design, expressed in the current Project proposal (De Beers 2022), it is not possible to assess the potential for adverse effects on caribou accurately and fulsomely. However, the following areas of concern are noted:</p> <ul style="list-style-type: none"> • As noted by the Proponent, the Project is located in an area that has been identified as important calving and post-calving habitat for caribou. Activities such as blasting, 	

operation of heavy equipment, and road traffic have the potential to disrupt caribou movements between seasonal ranges and displace them from habitat (e.g., Wilson et al. 2016; Boulanger et al. 2020). As has been required of similar projects in caribou habitat in Nunavut, these activities will need careful assessment, monitoring, and mitigation.

- The proposed development of an all-weather-access road between Iqaluit and the Project, if constructed may also induce additional impacts on caribou via several mechanisms.
 - Caribou have exhibited avoidance behaviour around powerlines (e.g., Vistnes and Nellemann, 2001),
 - Improved access to caribou via the road could lead to a local increase in harvest pressure (Valkenburg et al., 1994) during a sensitive season for caribou, as has been experienced at other mine access roads in Nunavut (e.g., AEM 2020),
 - Increased public traffic could also lead to displacement of habitat and disruption of seasonal movements as seen at other mine access roads in Nunavut (e.g., Boulanger et al. 2020),
 - Finally, access provided by an all-weather-road could promote further land-use such as construction of cabins, mineral exploration, tourism, etc.

RECOMMENDATIONS

The GN recognizes and appreciates the Proponent's efforts to work with and support GN caribou research and monitoring efforts to date. Additionally, we emphasize the importance of collaborating with GN wildlife biologists and local knowledge holders to understand the historic range and habitat use of caribou populations both on and near the Hall Peninsula when evaluating the Project's expected impacts on caribou and developing proposed mitigation measures.

The GN will provide additional review and comment on the Project proposal following development and submission of an EIS.

ADDITIONAL COMMENTS

Linear infrastructure, if considered for this project, must be developed with care and a goal of reducing traffic and human activity on that infrastructure. As has been demonstrated elsewhere in Nunavut, the scale and intensity of road usage has a much greater influence on caribou behaviour than the physical presence of the road itself (e.g., Boulanger et al., 2020).

GN-03: POTENTIAL IMPACTS TO POLAR BEAR

Department	Environment
Organization	Government of Nunavut
Subject/Topic	Potential Impacts to Polar Bear, Polar Bear Habitat, and Increased Human-Polar Bear Interactions
References	<ul style="list-style-type: none"> • NIRB Notice of Screening for “Chidliak Diamond Mine” Proposal – NIRB File No. 22MN025 • De Beers Group. (2022). Chidliak Diamond Mine Project Proposal, Version 1.1, August 10, 2022. • Dyck, M., Dunham, K.D., Ware, J.V., Koons, D.N., Regehr, E.V., Hosmer, D.W., Derocher, A.E., Dale, A., Pisapio, J., and Szor, G. 2021. Re-estimating the abundance of the Davis Strait polar bear subpopulation by genetic mark-recapture. Final Report, Government of Nunavut, Department of Environment, Iglulik. • Peacock, E., Taylor, M.K., Laake, J., and Stirling, I. 2013. Population ecology of polar bears in Davis Strait, Canada and Greenland. Journal of Wildlife Management, Doi:10.1002/jwm.489. • Polar Bear Range States. 2015. Circumpolar Action Plan: Conservation Strategy for Polar Bears. A product of the representatives of the parties to the 1973 Agreement on the Conservation of Polar Bears. • Smith, T.S., Derocher, A.E., Mazure, R.L., York, G., Owen, M.A., Obbard, M., Richardson, E.S. and Amstrup, S.C. (2022) Anthropogenic food: an emerging threat to polar bears. Oryx. doi:10.1017/S0030605322000278
CONCERNS	
<p>The proposed Project will overlap with the range of the Davis Strait polar bear subpopulation. Polar bears are a federal Species-of-Special-Concern pursuant to the Species at Risk Act (SARA). As such, it is expected that they would be considered a valued ecosystem component in a future environmental assessment of the Project.</p> <p>Given uncertainties about the final Project design, expressed in the current Project proposal (De Beers 2022), it is not possible to assess the potential for adverse effects on polar bear accurately and fulsomely. However, the following areas of concern are noted:</p> <ul style="list-style-type: none"> • Several mineral leases associated with the Project overlap with high density polar bear summer habitat (Peacock et al. 2013; Dyck et al. 2021). The proposed sealift staging area and access road east of the main Project area will also overlap with high density summer habitat. As a result of these interactions, there is potential for increased human-bear conflict leading to increased polar bear mortality and displacement from habitat. Additionally mineral leases outside typical summer habitat may attract polar bears. Polar bears are known to be attracted 	

to sites of human activity especially where they may obtain access to landfills. Increasing conflict between humans and polar bears has been identified as a growing concern (Polar Bear Range States 2015; Smith et al. 2022).

- Several mineral leases, site access roads and the proposed sealift staging area east of the main project area overlap with potential polar bear denning habitat. Recent studies also show that polar bears are sensitive to human activities during their denning period; in some cases, leading to den abandonment and reproductive failure (Woodruff et al. 2022). Proposed Project activities such as traffic and blasting could have adverse effects on polar bears, dependent on timing and location.

RECOMMENDATIONS

The GN will provide additional review and comment on the Project proposal following development and submission of an Environmental Impact Statement.

ADDITIONAL COMMENTS

N/A

GN-04: IMPACTS TO INUIT HARVESTING

Department	Department of Environment
Organization	Government of Nunavut
Subject/Topic	Impacts to Inuit Harvesting by Linear Infrastructure
References	<ul style="list-style-type: none"> • NIRB Notice of Screening for “Chidliak Diamond Mine” Proposal – NIRB File No. 22MN025 • De Beers Group. (2022). Chidliak Diamond Mine Project Proposal, Version 1.1, August 10, 2022.

CONCERNS

The Project proposal sits near an area called Sukanga Lake which is used by Inuit from Iqaluit and Pangnirtung for harvesting fish. Inuit harvesting rights are protected under the Nunavut Agreement. The proposed road from Iqaluit to the mine could have a negative impact on the snowmobile trail used by hunters.

Sukanga Lake is approximately 160km east of Iqaluit, and 50-60 km southeast of the proposed mine site. Sukanga Lake is relatively hard to reach due the difficult terrain and snow. It is an important traditional fishing spot used by hunters, mostly in the winter and spring months.

The identification of this area in particular does not preclude the presence of other important harvesting or culturally significant areas.

RECOMMENDATIONS

The GN recommends the Proponent consult with local Inuit and the Hunters and Trappers Organizations of Iqaluit and Pangnirtung regarding Sukanga Lake and any other traditional harvesting areas in the vicinity of the Project.

Further to this, the GN recommends that any proposed linear infrastructure take into consideration any traditional harvesting routes in the Project area in order to minimize the impact to these important trails.

ADDITIONAL COMMENTS

N/A



September 30, 2022

Nunavut Impact Review Board
P.O. Box 1360 (29 Mitik)
Cambridge Bay, NU
X0B 0C0

Dear Mr. Barker and Mr. Ehaloak:

NIRB 125714/22MN025: Comments from the Qikiqtaaluk Wildlife Board to the NIRB regarding the DeBeers' "Chidliak Diamond Mine" Project Proposal

On September 23, 2022, the Executive Committee of the Qikiqtaaluk Wildlife Board (QWB) discussed the DeBeers' "Chidliak Diamond Mine" Project Proposal based on the information provided by the NIRB in its email communication of September 15, 2022.

The Executive members unanimously agreed that a full and public environmental impact assessment and review is required for the proposed "Chidliak Diamond Mine" Project through the Nunavut Impact Review Board (NIRB).

The Executive agreed that:

- the project proposal is likely to arouse significant public concern, with caribou and other wildlife and their habitats being major concerns to Inuit harvesters,
- the proposed project is likely to cause significant adverse eco-systemic or socio-economic effects, especially related to wildlife harvested by Inuit; however, the attached documentation did not provide adequate information to fully assess such effects at this time,
- the proposed project is likely to cause significant adverse impacts on wildlife habitat and Inuit harvesting activities in the opinion of the QWB, although again the information provided with the proposal was not adequate to fully assess these issues.
- the proposed project is of a type in which potential adverse effects are highly predictable, but the potential adverse effects and potential

- mitigation measures are insufficiently described to know the extent to which such effects may or may not be mitigable with known technology, and the QWB cannot now recommend specific mitigation measures without more understanding about the full extent of the project, and more clarity of the various options for its development that may or may not be implemented, and
- the QWB cannot describe all matters of importance to the QWB without more detailed information about the proposed project in all aspects of its future development over the expected life time.

When considering the seasonal migrations of South Baffin caribou, the location of the potential development could impact important caribou subpopulations that are harvested by Inuit in the communities of Iqaluit, Pangnirtung and Kimmirut.

In addition, given the projected duration of the potential development, the long-term cyclical recovery of Baffin Island caribou as a whole may also be affected long into the future. The Baffin Island population is in a very early recovery phase of its long-term population cycle, with complete cycles lasting the lifetime of an Inuit elder (e.g., about 70-90 years). According to Inuit Qaujimajatuqangit, Baffin caribou are most sensitive to disturbance and displacement impacts during the current recovery phase of the cycle. When caribou densities are low, and when caribou distributions are limited and scattered, as they are currently, caribou are known to be especially sensitive; therefore, negative impacts on such subpopulations may be magnified and impact the entire population for decades into the future. Recent and future trends in climate change also complicate the future of the subpopulation and the population as a whole.

There are also other issues related to wildlife, wildlife habitats, and subsistence wildlife harvesting that need to be examined in more detail before any determination if the project should proceed, and if so, how.

The QWB is recognized in the Nunavut Agreement (NA) as the sole Regional Wildlife Organization in Qikiqtaaluk Region having responsibility for the general management of wildlife harvesting when and where more than one Hunters and Trappers Organization (HTO) may be involved, as per Part 5.7 of the NA. Therefore, the QWB hereby gives formal notice to the NIRB that the QWB expects to be engaged by the NIRB as a full Registered Intervener in the anticipated environmental impact assessment and review of the proposed DeBeers' Chidliak Diamond project.

Although the QWB has responsibilities for harvesting by Inuit when and where wildlife are shared by multiple communities in Qikiqtaaluk Region, that fact does not diminish the specific responsibilities that individual HTOs have to their

members in each community, as also set out in Part 5.7.3 of the NA. Therefore, the QWB supports any requests by potentially affected HTOs to also participate as independent Registered Interveners in the anticipated environmental impact assessment and review of the proposed DeBeers' Chidliak Diamond project.

Thank you very much for consideration of this input from the QWB.

Sincerely,



Michael Ferguson, Ph.D.
Director, Wildlife and Environment
Qikiqtaaluk Wildlife Board

Email: M Ferguson@niws.ca

Phone: 613-407-1197

cc: James Qillaq, Chairperson, QWB
Philip Manik, Vice-Chairperson, QWB
Adamie Nuna, Secretary-Treasurer, QWB
David Irngaut, Executive member, QWB
Apiusie Apak, Executive member, QWB
Kolola Pitsiulak, Executive Director, QWB
Jimmy Akavak, Chairperson, Amaruq HTA, Iqaluit
Simeonie Keenianak, Chairperson, Pangnirtung HTA
Mikidjuk Kolola, Chairperson, Mayukalik HTA, Kimmirut

DE BEERS GROUP

October 14, 2022

Cory Barker
Technical Advisor
Nunavut Impact Review Board
Via email: cbarker@nirb.ca

Dear Mr. Barker:

Re: Receipt of Comments on Chidliak Diamond Mine Project Proposal Screening

On September 7, 2022 De Beers submitted a project proposal (Application No. 125714) to the Nunavut Impact Review Board (NIRB) for the Chidliak Diamond Mine. NIRB determined that the project proposal was complete and subsequently distributed it for public review on September 15. Comments were due on October 6.

De Beers submitted the project proposal at an early stage of project planning, the pre-feasibility phase, specifically to seek input from interested Parties and identify any synergies with the proposed new technologies. We are pleased to see that several organizations took the time to review and provide comments on the proposal. We would like to thank the QIA, CIRNAC, ECCC, GN, and QWB for their thoughtful comments and recommendations. Each of these submissions will be considered carefully as we further refine the set of options for the final design. As part of this process, we intend to reach out to each of these organizations, as well as other organizations in the region, to seek further input and ideas on how to best minimize the potential impacts of the project while also realizing the opportunity that this project presents.

We look forward to working with NIRB staff and reviewers in the coming weeks and months as the screening process is completed and the scoping phase is initiated. If you have any questions or require further information, please contact me at sarah.mclean@debeersgroup.com or 867-688-9227.

Sincerely,



Sarah McLean
Environment and Permitting Manager

Cc: Chris Spencer, QIA
Agnes Simonfalvy, GN
Felexce Ngwa, CIRNAC
Eva Walker, ECCC
Michael Ferguson, QWB

De Beers Canada inc.

1601 Airport Road NE Suite 300 Calgary Alberta T2E 6Z8
www.debeersgroup.com/canada | info.canada@debeersgroup.com
Incorporated in Canada | Registration number 889569596

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