

**Submission to the Nunavut Planning Commission for the Public Hearing on North Baffin Regional Land Use Plan Amendment Application by Baffinland Iron Mines Corporation (BIMC)**

**[NBRLUP Amendment #3]**

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Submitted by: The Pond Inlet, Mary River Phase 2 Review Committee

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The Pond Inlet, Mary River Phase 2 Review Committee was created to coordinate a response to Baffinland's Phase 2 Proposal. It consists of concerned individuals and representatives of different interests in the Hamlet of Mittimitalik, including the Hunters and Trappers Organization.

This submission was prepared with technical assistance from Dr. Frank Tester, Adjunct Professor, Department of Native Studies, University of Manitoba, Professor Emeritus, University of British Columbia; Vincent L'Herault doctoral candidate, Department of Biology, Université du Québec à Rimouski; and Warren Bernauer, lecturer, University of Manitoba and doctoral candidate, York University.

### Introduction

The Nunavut Planning Commission (NPC) states in its directive of October 27, 2017 that it has been asked to consider an amendment to the NBRLUP to "allow a railway to be built across, beside, and where necessary away from, the Milne Inlet Tote Road shown in Appendix Q of the NBRLUP.

The Commissioners are to decide "if BIMC's proposed amendment should be accepted or rejected as written, in whole or in part, or if revisions should be made before the amendment is sent to the government of Canada, the Government of Nunavut and the Designated Inuit Organization to approve amendments to the wording of the NBRLUP."

### Terms of Reference

The NPC has directed participants, elders and members of the public on a list of matters relevant to the hearing process. These take the form of a number of questions that we address in our submission. They are:

- (1) Whether or not BIMC is required to provide the information listed in Appendix J of the NBRLUP if adding a new railway to an existing transportation corridor.

- (2) If yes, has BIMC provided the information listed in Appendix J as required?
- (3) Whether BIMC must follow the guidelines listed in Appendix K if adding a new railway to an existing transportation corridor.
- (4) If yes, has BIMC met those guidelines and does the NPC need to make a decision to determine the physical width of the existing corridor that is to safely encompass all components of compatible linear infrastructure within the corridor?
- (5) Is the proposed amendment consistent with the Nunavut Agreement, the Nunavut Planning and Project Assessment Act and NPC's broad planning policies, objectives and goals? Are amendments required?
- (6) Do the caribou protection measures in Appendix 1 of the NBRLUP need to be revised in connection with the proposed amendment of Appendix Q ...? What revisions are necessary or advisable?
- (7) Should the NPC create corridors that allow proponents to carry out any type (or "mode") of transportation project, and avoid restricting transportation to any project proponent?
- (8) Will the addition of a proposed railway to the existing transportation corridor in Appendix Q unduly interfere with the existing right of access for the purpose of transportation to the Milne Inlet Tote Road easement under the Nunavut Agreement, or not?
- (9) Are the proposed "multi-modal" uses (road and rail) compatible pieces of linear infrastructure within the corridor together with a public easement?

#### Position of the Baffinland Phase 2 Review Committee (Mittimitalik)

The Baffinland Phase 2 Review Committee of the Hamlet of Mittimitalik is opposed to the construction of a railway in this corridor. The Hunters and Trappers Organization, represented on the committee, passed a motion on September 29, 2017. **The HTO rejects the Phase 2 Plan put forward by Baffinland.** They, and the committee, **do not support Baffinland's request to build a railway** and plans for winter sealift shipping. The Committee is aware that plans for winter sealift shipping have since been withdrawn.

This submission to the NPC raises concerns and questions, and provides a basis for the position taken by the Review Committee and the HTO. Our concerns are organized under a series of headings.

### The Railway as a Physical Barrier for Inuit

In its 'Consideration of Inuit Land Use' (p.42), Baffinland develops a case that the railway will not interfere with Inuit hunters' travel, based on the argument that the main travel routes are parallel to the existing Tote road and not crossing it, or that travellers can use alternative routes.

Baffinland justifies this claim using a 'Map of Travel Routes near the Transportation Corridor' (Figure 5.14). According to the map, it is clear that the highest density of travel routes is located right along the Tote road that is the Phillip's Creek Valley. This valley is heavily used by travellers from Pond Inlet going south for caribou hunting or towards Igloolik to visit families. It is also used by Inuit from Igloolik traveling to Mittimitalik. The same route is used for return trips. Given the steep topography of the valley, our main travel routes are located less than a kilometer away from the Tote road all along the route from Milne Inlet to Mary River. In order to avoid steep sections on one side of the valley or the other, we have to cross back and forth the Tote road, multiple times during our trip (going both south and returning north).

In their proposal for phase 2, Baffinland failed to describe the dimensions of the railway. In the cross section of the railway bed provided in Figure 5.7 (p.32) it appears that the entire raised road bed is not shown. Instead the figure is designed to show what is at the very top of the roadbed – the rail ties and the rail imbedded in the gravel. They have omitted the actual height and slope of the complete bed from the top to the point where it makes contact with the existing terrain. The width of the roadbed at the base is also not shown or given in the text. We are concerned that the railway may represent a greater barrier to Inuit travel than the currently used Tote road. In addition, snow berms along the railway, depending on its height above the surface, can be a serious barrier to snowmobiles, especially when hauling long (up to 18 feet), and heavy komatiks.

In its description and mapping of the planned railway (Figure 5.8, p.33), Baffinland specifies that the railway would be following the current Tote Road except for the section between kms 57 and 84.5, where it deviates to the south-west to avoid high elevations. With regard to the main travel routes used by hunters (Figure 5.14), the proposed deviation will impose more crossings of the railway, whereas most travel routes are currently away from the Tote road in that specific area (Figure 5.14).

We are concerned that the railway will act as a more serious barrier for our traditional dog teams by blocking some areas where dog teams need to cross (as mentioned for ski-doo travellers). For example, every year there is a North Baffin dog team race with competitors from different communities. They go through this area close to Mary River, down to Milne Inlet, and have to cross the Tote road in several places in order to get to their destination. This race is an important event that takes place to put us in touch with the tradition of traveling by dog team. This event will be affected by the presence of a railway.

### The Potential Impact of the Railway on Habitat and Caribou as an Endangered Species

In its 'Consideration of Effects on Wildlife' (p.44), Baffinland states that the conversion of ore haulage operations from road to rail presents a number of advantages with respect to impacts on caribou. The assumption made is that the cumulative impacts of a railway on caribou are far less than those of a Tote road.

Baffinland further argues (p.45) that the railway will 1) substantially reduce traffic and sensory disturbance, 2) not require the need for a dedicated construction access road minimizing its disturbance foot print, 3) minimize dust generation and impacts on vegetation, and 4) avoid sensitive caribou calving habitats at higher elevations.

Our concern is that Baffinland provides no substantive evidence in support of their assumptions. In what follows, we present observations and scientific evidence suggesting that the railway likely represents a higher cumulative impact on wildlife (caribou) than the Tote Road itself.

#### 1) The status of the Baffin Island caribou herd

The Baffin Island caribou herd is currently at historical lows (Ducharme, 2016). The most recent North Baffin caribou demographic composition survey (Anderson & Orman, 2016) conducted in fall 2016, in a region encompassing Milne Inlet and the Tugaat River in the north, south to Steensby Inlet and the Isortoq River, counted only 202 individuals. In this context, a greater level of cumulative disturbances for individual caribou resulting from the proposed railway (greater than the current level of disturbance from the Tote road) may have systemic implications on population levels for a herd with numbers that are currently, critically low.

#### 2) Wildlife injury and fatalities

According information provided by Baffinland (p.30), the proposed railway would run 5 to 6 trains per day at a maximum speed of 75km/h (average 60km/h). This may increase wildlife injury and fatalities, compared with those resulting from ore haulage using trucks. Baffinland

suggests that each train will be made of 72 to 80 wagons (p.30). Trains cannot stop as quickly as a truck under the best of conditions. However, heavy loads and train length further affects a train's ability to come to a stop when wildlife are encountered. Baffinland has provided no information in this regard. Substantial mortality by collisions and disruption of caribou movements by railways have been documented in two development regions of Northern Russia (Klein 1971).

Research suggests that caribou harassment by insects during summer (warble flies and nose bot flies) increases the propensity of caribou to cross transport corridors and thus increases the risk of impacts (Murphy & Curatolo, 1987). This is a problem likely to be enhanced by climate change, the warming of the Arctic and changes in vegetation and environments favourable to the proliferation of harassing insects (Witter *et al.* 2012). Paradoxically, increased vigilance and monitoring in relation to rail traffic (human presence), may reduce the foraging efficiency of caribou (Klein, 1971; Koskela & Nieminen, 1983).

### 3) Noise and vibration

Baffinland states that sensory disturbance to wildlife will be less with a railway than with a Tote road (p.45). This assumption is unsubstantiated. It contradicts the current state of knowledge showing that noise generated by diesel trains has a greater reach (IAC acoustics 2017) and can generate more high frequencies (Sandrock *et al.*, 2008) than diesel trucks used for ore hauling. According to Inuit knowledge, the hearing and other sensory capabilities of caribou are substantial. Sound can travel a considerable distance across open tundra. Baffinland presents no data or references to studies addressing differences that may exist with respect to trains vs truck and the transmission of noise. Industrial disturbances can have important energetic implications and contribute to a loss of body mass in caribou (Bradshaw, Boutin & Hebert, 1998), with implications for survival and reproduction.

While limited construction of additional road access will be required to build the railway, construction will necessitate blasting, considerable movement of equipment and substrate, given the extent and likely size of the proposed roadbed, resulting in considerable noise. Baffinland has not provided details related to quarrying, construction and details of the construction process that allow for an assessment of what extraordinary noise will be involved in the building of a rail line. They have (as noted in what follows) provided no information on the amount or location of substrate required for its construction.

#### 4) The railway as a barrier to caribou movement, habitat use, and migration

While raising the issue that the current Tote Road may act as a barrier to caribou (p.19), Baffinland has failed to convince us that the proposed rail bed will not be an even more significant – if not physical, possibly behavioural – barrier to caribou movement. The size and the slope of the entire roadbed may pose an actual physical barrier that can hamper, if not completely alter, caribou ability to cross.

Figure 5.7 (p.32) does not allow for a clear understanding of the actual dimensions of the road bed. We suggest that it is deliberately deceptive in that it shows only the rail cross section and not the entire width or depth of the road bed. In order to evaluate the extent to which the road bed will constitute a barrier to the movement of both Inuit on snow machines pulling komatiks and caribou, these dimensions are required. A preliminary search of the literature suggests that a roadbed on permafrost will likely be a minimum of a metre in height (Yohe & Schmidt, accessed 11/16/17). Will the dimensions change along the route, depending on conditions? Surrindi & DeBock (1976), conclude that elevated linear structures may represent visual barriers to caribou and act as barriers in accessing habitat, creating regions or areas that are subsequently avoided. In order to respond to claims made by Baffinland we require more detailed information with proper detailed legends detailing the roadbed and any planned crossings.

Based on caribou workshops conducted by Baffinland-hired consulting services (Figure 5.15, p.45), Baffinland argues that the railway does not interfere with the predominant movement of caribou, and states that: “Inuit knowledge widely agrees that the predominant movement of caribou is South-North”, thus not crossing the proposed trajectory of the railway. The evidence provided by Baffinland in support of this claim, [results of a map-gathering workshop (Figure 5.15)] is unconvincing and very poorly explained. Baffinland has failed to provide a legend with the figure. This makes it difficult to understand whether or not participants in the caribou workshop described potential impacts to caribou movement. For example, many arrows (showing caribou movements?) are not drawn South-North, and several green and orange circles (that might represent high quality caribou high quality habitat or high quality harvesting sites) are within the 10km range of the railway corridor.

These observations raise questions about whether or not, as Baffinland states, the ‘Inuit knowledge widely agrees...’ argument is a valid one. Moreover, a study conducted in northern Norway showed that traditional caribou migrations can ceased after the construction of a railway (Nellemann *et al.*, 2000). In order to respond to claims made by Baffinland, we require

more detailed maps with proper detailed legends, as well as access to results and methods used in the caribou workshops to which the document refers.

#### 5) Corridor displacement and zone of impact

In its description and mapping of the planned railway (Figure 5.8, p.33), Baffinland specifies that the railway would be following the current Tote Road except for the section between kms 57 and 84.5, where it deviates to the South-West to avoid a high elevation region (Colour elevation image provided in Figure 5.13, p.41). Baffinland further states that the maximum distance between the railway and the Tote Road will not exceed 7 kms. It claims that this is with respect to the 10km-wide corridor concept indicated by the Nunavut Planning Commission. However, the location of the railway at this point requires the displacement of the 10km corridor (buffer) on each side of the railway. This is not indicated in Figure 5.8. The displacement of the corridor requires the characterization of environmental features and wildlife within this area as well as evaluation of the presence of any high-valued harvest areas and culturally important sites. Recent studies (Boulanger *et al.* 2012) show how the zone of impact of industrial activity can extend to remote areas well beyond the typical buffer zone (here, the 10km zone) depending on various factors (wind, seasons, terrain).

#### 6) Potential for spatial isolation and entrapment and/or inability to access higher elevation habitats for calving

In relation to the previous point, the SW deviation of the railway from the Tote Road between kms 57 and 84.5 might bear important implication for caribou movement. The railway, taken together with the Tote Road, will completely circle and isolate via these two means of transportation, a region of high elevation from the rest of the landscape (Figure 5.8, p.33). As Baffinland notes (Figure 5.13, p.45), high elevation regions are sensitive caribou habitats used during calving. The isolation of this region could contribute to entrapping individuals living in the 'island' and/or affect access to the calving grounds for those caribou that were using these elevations for calving.

#### 7) Observations on proposed mitigation measures

Given the greater risk of injury and fatalities, impact of noise and vibration and the railroad as a visual and physical barrier, it is likely to represent a more serious problem with greater cumulative impacts on caribou than the Tote Road already in place. The railway may split/constrain caribou populations, as small as they may be, and affect the meta-population functioning.

Far from considering the railway as an impact, Baffinland in its Phase 2 document advances the railway as a solution to existing problems and promotes it as a mitigation measure (p.48). Based on the above noted observations and secondary evidence, we suggest that advancing the railroad as a mitigation measure is inappropriate, indicates that the proponent is ill-informed and that the research and effort they have put into addressing impacts on wildlife is inadequate for the purposes of making informed and conscientious decisions. The construction of wildlife crossings thus emerges as the only mitigation measure proposed by Baffinland with respect to caribou. We do not consider plans to monitor caribou movements as, in and of themselves, a mitigation measure. The location of crossings or means for determining their location are not discussed or evaluated in relation to the length of time for a train of 80 cars in length to pass by any particular location. The effectiveness of crossings as a mitigation measure for caribou populations are largely unknown (Wolfe, Griffith & Wolfe, 2000).

Our understanding is that Baffinland is responsible for providing the NPC with a map indicating areas it will protect in the construction and operation of a railroad. We are not in receipt or aware of the existence of this required document.

We conclude that Baffinland's proposed railway contravenes the 3<sup>rd</sup> criteria of Appendix K (Corridor Guidelines) of the North Baffin Regional Land Use Plan which specifies that in keeping of existing legal and legislative requirements, corridors shall not negatively impact **key habitats** for fish and **wildlife species** and especially areas used by **endangered species**, as well as **important fish and wildlife harvesting areas**.

#### Implications for Labour and Social Issues Affecting Mittimitalik

##### 1) The lack of attention paid to social impacts

Given that Baffinland is seeking an amendment to include a railroad in the existing transportation corridor, Appendix J of the NBRLUP requires that Baffinland provide the NPC with a description of the possible social impacts and an assessment that includes the "social consequences" of the suitability of the corridor and "the ... social impact of the project on nearby settlements ..."

As is usually the case when proponents think about social impacts, there is a heavy emphasis on jobs and economic benefit to the exclusion of attention to anything negative that might arise from proposed actions. The Phase 2 document is no exception to this pattern. On page 6, Baffinland cites the considerable economic benefits of the project to the socioeconomic structure of the area, but provides no data in support of their claim.



## 2) Employment and related social issues

Baffinland's emphasis on the 'benefits' of the Mary River mine, especially employment, does not reflect the experience Qikiqtani Inuit have had with the project thus far. First and foremost, Inuit employment rates at the Mary River project have been dismal in recent years. The very modest target of 25% Inuit employment has never been achieved. Inuit participation rates have in fact recently fallen from 16% to 12.5% of Mary River's workforce (Baffinland, 2016). While no other mines in Nunavut have achieved an Inuit-majority workforce, no project in recent years has suffered from such a poor Inuit participation rate.

Not only are Inuit deprived of the vast majority of jobs at Mary River, but the best jobs in particular go to outsiders. A central complaint that we as a Committee have with respect to employment is that much of the employment at Baffinland that goes to Inuit requires a low level of skills and is boring and repetitive. In promoting the benefits of employment and dealing with social impacts, Baffinland has not provided any statistics or information to indicate what kind of work Inuit are doing. However, experience with other mines in Nunavut suggests that there is likely an ethnic division of labour at the mine. For example, at the Meadowbank gold mine, most unskilled and semi-skilled positions are filled by Inuit - particularly women - while most skilled and all professional positions are filled by Qallunaat (Agnico-Eagle, 2015).

Baffinland also fails to provide information on what percentage of its Inuit employees are women, or statistics related to what types of jobs are being filled by Inuit women. Experience at other projects in Nunavut suggests that Inuit women are usually employed in kitchen work, laundry, and housekeeping. These types of jobs expose Inuit women to sexual harassment and other problems that often are not reported through official channels (Czyzewski, Tester, Aaruaq & Blangy, 2014). What has Baffinland done to identify these problems and to do something about them? This is a social impact and a problem that can only get worse if the railway is approved, more ore is transported and Inuit are employed. This is a social impact that has received no attention from Baffinland. Given the current focus on multiple work sites (the film industry, etc.) where women are being harassed, this is a notable omission.

Research has shown that family, personal and social problems related to employment in fly-in, fly-out employment situations are directly related to turnover rates experienced in remote mining operations. The literature dealing with this is extensive (Czyzewski, Tester, Aaruaq & Blangy, 2014). Baffinland has not provided any data on how the development of a railroad during both construction and operation phases might impact upon Inuit employment and subsequently might affect demands for services (day care, counselling with respect to family relations and education with respect to financial and related considerations), as well as impacts

related to income, equipment and capacities for hunting and other forms of land use. An increase in the labour force and issues facing employees may require reviews of hiring and employment policies and practices addressing issues of harassment, leaves of absence, etc. None of these social impacts are identified or addressed in the Phase 2 proposal.

Baffinland has chosen to emphasize the economic benefits of its operations but has not considered these relative to the social costs of achieving those benefits. It has stated that its operations make “significant economic contributions at the community, territorial and national scales”. However, an assessment of social impacts must also balance these with attention to the social costs of achieving these contributions. These typically take the form of increased demands on social services in relation substance abuse, domestic problems, and family problems in general – absentee parents, implications for education of youth, mental health services, daycare needs, loss of culture and cultural pursuits - etc. The impacts of sudden increases in income and work schedules that remove one or more family members from a community for periods of time are particularly felt by women (Robinson, 1996). If employment is to increase, something of interest to both Baffinland and QIA, what are the social impacts? These are not addressed.

### 3) Food security

Another issue of importance is food security. This issue was addressed to some extent in Mittimitalik, as in other Nunavut communities, by hunting and a hunter support program that has not operated since 2014. This means that support for hunters supplying families and communities with badly needed food, is not what it should be. This places a particular burden on Mittimitalik hunters given the rising costs of equipment and supplies necessary to hunting. The situation has been further complicated by the moratorium on hunting Baffin Island caribou. This means that hunters must go south to the Igloolik area to hunt, a consideration with regards to travel between Milne Inlet and Mary River, as discussed previously. Any activities that affect the population of Baffin Island caribou and that continue to make it necessary for hunters to travel south will have financial implications related to the cost of travelling and hunting with implications, in turn for food insecurity in Mittimitalik. Food security has been, for a long time, a major concern for Inuit of Mittimitalik (Murray, 2015). The NPC has also identified food security as a fundamental theme for land use planning, and a 2016 draft Nunavut Land Use Plan indicates that ensuring food security is a central goal of planning (a conclusion which the NPC arrived at through consultation with Nunavummiut) (NPC, 2016). This matter is also of relevance to the Inuit Impact Benefit Agreement in place and any future negotiation of changes in the agreement.

#### 4) The use of community surveys to determine interests and concerns

The Phase 2 proposal makes reference community surveys conducted in five North Baffin communities in 2016 (p.7). Without being provide with details of the survey – how it was designed, by whom and with what inputs, how it was administered, the manner in which issues of reliability, validity and generalizability were addressed, it is difficult to assess the significance of what Baffinland has reported in the Phase 2 document.

However the number of completed surveys is incredibly low (205 surveys for 5 communities?). The total population of these 5 communities was 6068 (Census data, 2016). If one assumes that 42% of the population was 18 years of age or under (a figure that can be derived from the 2016 census data), the adult (above 18 years) population was 3518. This leaves a response rate of 5.8%. A good response rate for an external survey is 10 to 15%. The low response rate, depending to some extent on representativeness (for which no information is provided) means that the results lack validity and should not be taken into consideration by the NPC in making any decisions where the information provided might otherwise be useful.

There is considerable bias in the way results are presented. The list provided is only of the positive benefits. The negative impacts are not listed, thereby downplaying them (whatever they may be). Only a few of the concerns are listed in the paragraph that follows. The numbers don't add up. If 18% of respondents had concerns about potential negative impacts, why is the total number of those who responded negatively (as suggested by the pie chart) only 8%? And 17% had other concerns.

The Phase 2 study reports (p.15) that 332 residents in 5 communities attending public meetings and open house events. This represents 9.4% of the adult population. How many meetings were held in each community? Were these different residents or does this number include repeats (same person goes to more than one event)? If the dominant concern was employment opportunities, then these same people might be less inclined or motivated to raise concerns about potential negative social and environmental impacts. How were these events advertised and who attended? Was child care available for women or men who might have wanted to attend but had child care responsibilities. The result could be to bias attendance to young, and/or unattached men looking for employment.

These and other factors related to the community surveys and public meetings could easily explain the outcome, where employment is constantly shown to be the primary concern. What is this data that shows the frequency of issues raised based on – the comment forms? Or

someone recording the number of times issues were raised by speakers or .....? These considerations are relevant to interpreting the Figure provided on page 18 (4.7).

These considerations are important as Baffinland appears to be basing its claims about potential impacts on the extent to which concerns were raised in meetings and community consultations. For example, in Figure 4.8 (p. 21) only 2% of concerns about the northern transportation corridor were in relation to rail and road transport. There are serious problems with the underlying logic. Inuit who have had no experience with a railroad and have no knowledge of how it works (engineering-wise and in other ways) are not likely to raise concerns because they have little or no knowledge – understandably – that gives them grounds, reasons or a basis for raising concerns. The presentation of data by Baffinland in this regard, is deceptive. How much effort was made to explain to the communities the engineering and operational realities (problems included) associated with operation of a rail line? What is presented here takes advantage of the unique experience of Inuit in their homeland (where there are no railways).

#### The Potential Impacts of Railway Dust

In its 'Consideration of Effects to Wildlife' (p.45), Baffinland argues that use of a railway will minimize dust generation compared dust levels generated by the current Tote road traffic. They make the case that this is particularly true if one considers a scenario where the Tote road traffic would increase to transit the target 12mt of ore proposed in Phase 2.

Baffinland provides no evidence in support of their claim. In the proposal presented to the Nunavut Planning Commission for Phase 2, Baffinland states (page 30) that the rail operations will consist of two sets of trains consisting of heavy haul locomotives, each hauling between 72 and 80 open top ore cars. This suggests a considerable risk of releasing iron ore (red) dust to the environment along the length of the railway.

Areas exposed to strong dominant winds are likely to be the most affected as dust can be carried for several kilometers. This has been observed with respect to the current operation of the Tote road. Vigorous air displacement from the train and wagons can also release dust from the rail bed to the environment. Over time compression of the substrate in which the ties are imbedded is likely to produce fine particulate matter than can be blown as a train passes over the rail.

Our experience is that there have already been a lot of foxes observed with a red dust coat and hunters and others have reported seeing geese feathers that were reddish in colour as a result of their exposure to road dust. The literature dealing with this problem records that iron dust

can alter plant communities (Haeberlin & Graf, 1998). Direct exposure to dust and consumption of plants exposed to dust by the wildlife we eat, such as geese and caribou, can be harmful for our health. This is especially of concern with kids and elders who are more sensitive to contaminants.

Dust is affecting ice and snow dynamics and can cause faster thawing of snow and ice in the spring or even in winter. This exposes vegetation and wildlife to cold temperatures and can affect permafrost dynamics. Fish must be breathing and absorbing iron dust through their gills during the period of ice melt. This is particularly problematic all along Phillip's creek (the location of the Tote rode) where due to being covered in dust, snow melts way faster in the spring than other areas that are not covered in dust. This has been observed by a great number of travellers in the area. Our snowmobiles are often covered in dust as a result of travelling near the Tote Road.

#### The Implications of Expanded Operations for Existing Environmental Concerns

With regard to this issue, we refer to a letter written to Wayne McPhee, Director, Sustainable Development, Baffinland Iron Mines Corporation, Oakville Ontario, November 4, 2017. We will not dwell on the details of matters raised in the letter. The letter deals with "the number of environmental issues on site appearing to result from poor management practices which now requiring (sic) addressing" (p.1). It goes on to list these issues.

They include: a failure to monitor sea levels and storm surges at Steensby Inlet and Milne Inlet; a failure to submit in an annual monitoring report, blasting management plans for several quarry sites; that Baffinland wishes to suspend its monitoring of SO<sub>2</sub> and NO<sub>2</sub> at the mine site, Steensby Inlet and Milne Inlet and that the NIRB requested a rationale for this decision; that Baffinland's methods for monitoring fish health were deficient; that measures to deal with permafrost degradation and sensitive landforms were not documented since 2014; that Baffinland proposes to eliminate a number of monitoring programmes related to vegetation, soil base metals sampling and roadside waterfowl and that a rationale for these decisions was required; that modeling the effects of ballast water discharge from ships were not being properly reported; that information on what was being done to train community members to deal with potential spills from ships and the provision of equipment to deal with this possibility had not been provided; that plans for dealing with dust had not been updated; that documentation on the impact of noise on marine mammal presence had not been submitted to demonstrate compliance with the Fisheries Act; that Baffinland revise its Shipping and Marine Wildlife Management Plan and integrate Inuit with the interpretation of results and revise its methods for monitoring of polar bears that may be impacted by its operations; that Baffinland

was not properly monitoring the movement of Inuit and non-Inuit in and out of the local study area; that it was not providing data on non-Inuit residents and contractors employees residing in the local study area; that Baffinland needed to develop a plan for dealing with fish-bearing crossings; that Baffinland needs to improve its relationships with members of terrestrial environment and marine working groups; that a better system for dealing with and storing used tires was needed; that the waste landfill required repairs and that there was runoff from potentially acid waste rock that needed attention.

Our concern is an obvious one. Given this list of matters in need of attention, what will this look like for an expanded operation? Baffinland has not demonstrated that it can effectively manage existing environmental and social concerns, let alone an increase in these matters resulting from a greatly expanded project.

#### Process Issues: QIA, Inuit Rights and Community Consultation

##### 1) Community engagement and consultation

On page 21 of the Phase 2 proposal, Baffinland states that: “To ensure that community views continue to be taken into account, Baffinland will continue to undertake an active and on-going approach to engagement on the Phase 2 Expansion Project with the communities and other stakeholders”. Taking community views into consideration is important, but assisting communities in being maximally informed so that their views are based on a thorough understanding of what is being proposed (and not just a glossy overview that serves the interest of the proponent) is important. The use of the word “continue” implies that Baffinland has previously taken an active and on-going approach to engagement. We have no description of what this engagement looked like. We have some statistics related to numbers and places, but nothing that describes the content. The Pond Inlet, Mary River Phase 2 Review Committee maintains that there has been no “proper consultation with the community” in relation to this proposal.

##### 2) Inuit rights and the role of QIA

Article 25 of the Nunavut Agreement establishes royalty payments to be made to the Inuit Trust, a body made up of two representatives from each of the regional Inuit associations. The trust is entitled to (a) fifty percent (50%) of the first two million dollars (\$2,000,000) of resource royalty received by Government in that year and (b) five percent (5%) of any additional resource royalty received by Government in that year.

Article 26 of the Agreement lays out the parameters for negotiation and settlement of Inuit Impact Benefit Agreements to be paid to district (regional) Inuit organizations, guided by principles that consider (a) benefits that promote Inuit cultural goals (b) that contribute to achieving and maintaining a standard of living equal to other Inuit in Nunavut and to Canadians in general (c) benefits related to the nature, scale and cost of the project and to its impacts. Other principles speak to the reasonableness of benefits and the ability of other residents of Nunavut to benefit from projects in Nunavut. Sections (a) and (b) are important. They give direction as to how, and for what purposes benefits are to be used.

The Mission statement of the Qikiqtani Inuit Association is: to safeguard, administer and advance the rights and benefits of the Qikiqtani Inuit; and to promote Inuktitut, the Inuit language and Inuit traditions, environmental values, self-sufficiency, and economic, social and cultural well-being in an open and democratic forum.

While the Nunavut Agreement outlines principles to guide negotiation for benefits from development and subsequently suggests for what purpose funds are to be used, the language used is 'soft' and does not compel the regional Inuit Associations to use their funds for these purposes. Similarly, the Mission Statement of QIA is a statement of principles but is not legally binding.

The Pond Inlet, Mary River Phase 2 Review Committee contends that with regard to its role in decisions about resource development affecting the community of Mittimatalik and the North Baffin region, the Qikiqtani Inuit Association (QIA) is in a conflict of interest.

QIA stands to benefit materially from an increase in resource development activity in the Qikiqtani region receives considerable financial resources via the Inuit Impact Benefit Agreement that it has negotiated with Baffinland. QIA also receives income from a number of other resource-related areas of development, including the quarrying of gravel, etc.

On the one hand, QIA benefits from projects that generate considerable social and environmental impacts with implications for Inuit culture, cultural pursuits – including hunting - Inuit values, individual health and wellness and family well-being.

At the same time, it is responsible for protecting Inuit rights: culture, cultural pursuits, language, Inuit values, and the integrity and well-being of Inuit and Inuit families.

Transparency is an issue for while funds are directed through a number of programs to address the impacts of mining on the community of Mittimatalik, it is by no means clear how the amount of money directed to the community compares with the income received by QIA and

how that money is spent. Funds received by QIA can also go to operating and related expenses and can benefit the elected officials of QIA and others, in ways inconsistent with the principle of contributing “to achieving and maintaining a standard of living equal to other Inuit in Nunavut and to Canadians”. We recognize that QIA has put in place and funded programs that can be accessed to address social and cultural concerns. The extent to which these are and can easily be accessed and the level of funding and resources directed to them in relation to the benefits received by QIA as a result of resource development cannot be determined without greater transparency. Writing grant proposals is a skill that needs to be taught to more members of our community so that Inuit can take full and proper advantage of these programs.

To the extent that benefits and resources are directed to persons and activities that are not related to mitigating the social and environmental costs of resource development, QIA is in a conflict of interest, having a vested and institutional interest in supporting and encouraging resource development and the revenues it generates while at the same time being responsible for protecting the cultural rights of Inuit affected by resource development.

If Baffinland is to be held accountable for demonstrating that it has addressed, through mitigative measures, the on-site and systemic environmental impacts of proposed development, should QIA, which has the responsibility of addressing the social and cultural impacts of proposed development, not be held to the same standard?

The only way that the extent and nature of this apparent conflict can be determined is through complete transparency, something that is not, with respect to the income and expenditures of QIA, not available to Inuit in the region.

We are asking that the Nunavut Planning Commission (and the Nunavut Impact Review Board) be conscious of this potential conflict in being guided or advised by QIA as to how to proceed in dealing with public input and influence in the decisions that have to be made.

### Conclusions and Recommendations

This section is organized in relation to the question posed by the NPC to direct matters to be considered at the hearing.

- 1) **BIMC is required to provide the information listed in Appendix J of the NBRLUP if adding a new railway to the existing transportation corridor.** They are not adding a “new” railway. They are adding a mode of transportation not currently present in the corridor. The wording of the appendix is “Applicants wishing to develop a .... corridor are required ... . It is the “development’ of a corridor is that is the matter being considered.



There is nothing in the wording that indicates this appendix only applies to the development of a *new* corridor. As worded, it applies to the development of a new or (the further development of) an existing corridor.

- 2) **BIMC has not provided the information listed in Appendix J as required.** Throughout our submission we have made it clear that the Phase 2 proposal document is seriously deficient in many ways. The description of the proposed corridor, the maps and diagrams presented are deficient in a number of previously identified ways. In some cases, this makes it difficult to assess potential impacts. BIMC has failed to identify many of the social and environmental impacts that we have identified and furthermore has masked some by treating the development of a railway as a mitigative measure.
- 3) **BIMC *may not be* required to follow the guidelines listed in Appendix K if adding a new railway to an existing transportation corridor.** The problem with this Appendix is the wording. The preamble states that: “The following planning guidelines will be used in the assessment of a *new transportation/communications corridor proposal*”. (emphasis added). While it may be desirable for the guidelines to apply, given the systemic implications of a railway, the wording appears to exempt BIMC. The NPC may wish to reconsider the wording for future cases such as this. The relationship between the content of Appendices J and K is interesting. It appears that even if K does not apply, BIMC cannot ignore the content of especially sections (2.) or (3.) as these concern social and environmental impacts that have to be documented in meeting the conditions laid out in Appendix J. However, while Appendix J calls for an assessment of impacts, it does not say anything about mitigation whereas Appendix K makes it clear that certain impacted values require mitigative measures. The preamble to Appendix K needs to be redrafted.

However, location of the railway away from the Tote Road for part of its length between kms 57 and 84.5 has implications for the boundaries of the existing corridor and its associated buffer zone, likely requiring a redefinition of the corridor. Given this reality, the corridor that would apply if approval were given to the railway, would constitute a new corridor. In this case, **BIMC is required to follow the guidelines listed in Appendix K if adding a new railway to the existing transportation corridor.**

- 4) **BIMC has not met these guidelines and NPC needs to make a decision to determine the physical width of what constitutes a newly defined corridor that is to safely**

**encompass all components of compatible linear infrastructure within the corridor.**

Appendix K provides guidelines for addressing by means of mitigative measures, the impacts identified in Appendix J, consistent with the guidelines provided in sections 2 and 3 of Appendix K. As noted throughout our submission, Baffinland has failed to address (and identify) many environmental and social impacts and has therefore also failed to identify mitigative measure (policies and practices) that might ensure that the corridor does not negatively impact the values listed in Appendix K.

However, given the IIBA and the mandate and mission of QIA, it is unreasonable for Baffinland to be expected to bear complete responsibility for “minimizing negative impacts on community lifestyles”, given that lifestyles are matters of culture, family relations and the capacity of individuals to participate in community life. Regrettably, the NPC does not indicate who is responsible for protecting the values it lists in Appendix K. We maintain that not only Baffinland, but QIA should be held to account in addressing negative impacts on the values listed in Appendix K.

- 5) **We choose not to comment on whether the proposed amendment is consistent with the *Nunavut Agreement*. The proposed amendment may not be consistent with the *Nunavut Planning and Project Assessment Act* and the NPC’s broad planning policies, objective and goals. Amendments may be required.** The NPC does not have a map for the North Baffin Region indicting critical caribou habitat; this, despite the current critical status of caribou on Baffin Island. Without this resource, it is difficult to make definitive statements about the extent to which changes to the North Baffin Region Land Use Plan impinge upon and might affect critical habit for caribou and other species. We argue that without this resource, for which the NPC is responsible, public interest groups such as ourselves are handicapped in answering the question that has been asked here.

**With reference to section 42(1) of the *Nunavut Planning and Project Assessment Act*, it is difficult to understand how the NPC can exercise its responsibility for “conservation, development, management and use of land” without a protection map identifying critical habitat.** We cannot therefore make comment, based on the information contained in such a map, about the impacts on conservation values of the proposed activities. Our insights rely on information provided by hunters and elders in the community. There is reason to believe that the proposed amendment does not meet the purpose of 47(a) “to protect and promote the existing and future well-being of the residents and communities of the designated area ...” and at 47(b) to “protect and .... restore the environmental integrity of the designated area ...”.

**The Commission has exercised its responsibility under section 81(5).** However, it is not clear why “public”, as used in this section, has been limited to the Hamlet of Mittimitalik and has not included other communities in the region whose interests are also affected to varying degrees and in different ways by Baffinland’s proposal. The role of QIA in attempting to influence this decision, given the conflicts of interest previously noted, is cause for concern.

A similar problem arises with the NPC meeting its objectives under the North Baffin Region Land Use Plan. Two of the objectives of this plan are (Chapter 3): (1) “to protect the opportunity to use wildlife for the nutritional, economic and cultural needs of the permanent residents” and (2) to ensure that the effects of any land use activity do not threaten the sustainable wildlife harvest and further “to support a co-ordinated process for identifying, designating and protecting areas important for wildlife and for preserving cultural values”.

**We have problems commenting on the proposal of Baffinland without the protection map for which the NPC is responsible that would assist in identifying important habitat and other areas important to “preserving cultural values”.** Another relevant objective is to: “ensure that mining exploration, production and abandonment proceed with minimal adverse effects on the environment”. As previously noted, **Baffinland has not provided the Commission with information that permits this determination and we maintain that the construction and operation of the proposed railroad cannot proceed with minimal adverse effects on the environment and the community.**

- 6) **We cannot determine if the caribou protection measures in Appendix I of the NBRLUP need to be revised in connection with the proposed amendment of Appendix Q. We therefore cannot give an opinion on what revisions are necessary or advisable.** This again, because we have no protection map, produced by the NPC, to which to refer in making this determination.
- 7) **The NPC should not create corridors that allow proponents to carry out any type (or “mode” of transportation project, and should not avoid restricting transportation to any project proponent.** The many revisions presented by Baffinland make the point. These changes (from a southern route to Steensby Inlet to a northern route to Milne Inlet and changes in shipping proposals to eliminate a winter shipping season during months that would require ice breakers) all have potentially serious environmental and social impacts. It is evident that one cannot predict or rely on the plans submitted for a corridor by a proponent at the time and that these can be subject to changes with

potentially serious social and environmental impacts. We are not convinced, given the economic realities under which Baffinland is operating, the need to increase the volume of production, as indicated by the Phase 2 proposal and therefore the need to ship increased volumes of ore in general and at critical times dictated by the price of iron ore that a proposal for winter shipping will not re-emerge. While shipping is not a focus of the current hearing, this illustrates the unpredictable nature of major changes to transportation corridors that must be evaluated for their environmental and social impacts.

**8) The addition of a proposed railway to the existing transportation corridor in Appendix Q will unduly interfere with the existing public right of access for the purpose of transportation to the Milne Inlet Tote Road easement under the Nunavut Agreement.**

We have documented Inuit use of this transportation corridor in relation to the existing Tote Road and noted that the construction of a railway will result in a significant barrier to this travel. We noted that Baffinland has not provided detailed information on the roadbed or the proposed crossings.

**9) The proposed “multi-modal” uses (road and rail) are not compatible pieces of linear infrastructure within the corridor together with a public easement.** In our submission, we have given good reason why this is the case.

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