



January 20, 2022

Cory Barker, Monitoring Officer
Nunavut Impact Review Board
29 Mitik Street, P.O. Box 1360
Cambridge Bay, NU
X0B 0C0
(867) 983-4607
cbarker@nirb.ca

Re: Temporary Closure Planning: Socio-Economic Considerations for the Mary River Project

Dear Mr. Barker,

As you know, on April 30, 2021 Baffinland Iron Mines Corporation (Baffinland) identified to our employees and the Qikiqtani Inuit Association (QIA) that placing the Mary River Project (Project) into care and maintenance may be necessary in 2022 due to factors including regulatory delays associated with the Phase 2 Proposal, unfavourable iron ore price forecasts, and the mine's current production levels.

Baffinland acknowledges the stresses and uncertainties that can arise on workers, families, and communities from a care and maintenance scenario, otherwise described in the Interim Closure and Reclamation Plan (ICRP) as temporary mine closure. We also understand concerns have been raised on this topic and a proactive approach to assessing risks and potential effects is justified. While a previous report on this topic was prepared by Baffinland¹ in accordance with NIRB Project Certificate No. 005 Term and Condition No. 149, the Project has evolved considerably since its release and several new developments have occurred that require various updates to the report to help inform Baffinland's closure planning process.

The attached updated report *Temporary Closure Planning: Socio-Economic Considerations for the Mary River Project* (Attachment 1) considers risks for temporary mine closure and how communities in the North Baffin region may be affected by it, including economic, social, and cultural effects. It also reviews socio-economic planning considerations related to temporary mine closure. Key findings include:

- After considering current economic, social, and environmental risk factors, the Project has been assessed to currently be in a 'moderate to high' risk profile for temporary closure. This conclusion considers the highest risk rankings identified in all categories assessed in addition to the role of other pertinent risk factors.
- It is evident the socio-economic effects of temporary closure would be varied and complex, however, the adverse economic implications for North Baffin communities could be considerably negative. A conservative assessment of losses to the communities and residents, as

¹ FHW Consulting. 2014. *Baffinland Iron Mines Mary River Project: Potential Effects of a Mine Closure*. September 25, 2014.

well as Nunavut and Canada more generally are detailed in Section 3.3.2 of the report and summarized in the following table:

Benefits to Date to be Discontinued*	Anticipated Benefits of Full Project Lost
\$3.5 billion invested to date in Project development; \$1.48 billion awarded to Inuit firms	\$19.8 billion in total Canadian expenditures; \$4.7 billion in Nunavut
\$724 million towards Nunavut's GDP in 2019, representing 23% of the territorial economy	\$30.7 billion in Canadian Gross Domestic Product; \$19.3 billion in Nunavut
\$85.8 million in wages to Inuit employees; 503 graduates of per-employment training; Over 160,000 hours of training to Inuit Project employees; and \$1.5 million in annual training support	136,745 total Full-Time Equivalent (FTE) positions in Canada; 16,221 in Nunavut**
Over \$103 million in royalty, advance royalty and commercial lease payments to QIA	\$2.4 billion in royalties and other payments to QIA and NTI**
Over \$53 million in taxes to the Government of Nunavut	\$1.7 billion and \$680 million in taxes for the Governments of Canada and Nunavut, respectively**

*Current to the date of this letter, may differ from content of Report

**Limited employment, payments and taxes would continue in certain closure scenario's, but they are insignificant compared to the Full Project

- Additional mitigation measures are proposed to provide minor offsets to the anticipated negative consequences of closure on our employees and contractors as we transition from an operating project to a care and maintenance scenario

The content of this report has been informed by several sources including community and stakeholder perspectives that have been shared. Baffinland further organized a series of engagements specific to temporary closure planning prior to the submission of this report, including:

- Memorandum to members of the Qikiqtaaluk Socio-Economic Monitoring Committee (QSEMC) and Mary River Socio-Economic Monitoring Working Group (SEMWG) (May 14, 2021)
- Meeting with North Baffin Community Economic Development Officers (CEDOs) (October 5, 2021)
- Meeting with the Mary River SEMWG (October 13, 2021)

This report is being submitted to the NIRB Public Registry in an interim format, as it is understood additional modifications may be identified in the future. Baffinland continues to welcome community and stakeholder feedback on potential socio-economic effects and planning considerations related to temporary mine closure. Baffinland will also update its relevant management plans, as needed, to reflect the new mitigation measures for addressing temporary closure presented in this report. Where appropriate, these plans may be updated again in the future to reflect any significant changes to the risks and/or potential socio-economic effects of temporary Project closure.

It cannot be stressed enough that while this initiative did provide a better understanding of risks and concerns related to closure, and an opportunity to develop some offsetting mitigation measures, the consequences of temporary closure from a socio-economic perspective are anticipated to be considerable and negative. Further than that, the circumstances driving Baffinland's present risk of temporary closure, if remain unchanged or worsen, will lead to a long term or permanent closure scenario, rather than a resumption of operational activities within the next year. This means the negative socio-economic effects of closure should be viewed as long-term or permanent, as opposed to a short term 'break' from working with Baffinland. The reality is there is no replacement for the economic activity and opportunities provided by the Mary River Project for the North Baffin communities and Nunavut more generally. Baffinland does not take these circumstances lightly and will continue to do what it can to avoid a closure scenario, but consistent with the operation to date, Baffinland cannot do this alone and will continue to require the support of Inuit, Inuit organizations and governments to ensure the long term delivery of benefits continue to flow from the Project.

Sincerely,



Lou Kamermans
Senior Director Sustainable Development
Baffinland Iron Mines Corporation

c.c. Robert Bourassa, Qikiqtani Inuit Association / Mary River SEMWG Member
Jessica Waldinger, Government of Nunavut / Mary River SEMWG Member
David Abernethy, Crown-Indigenous Relations and Northern Affairs Canada / Mary River SEMWG Member

Attachment 1 - Temporary Closure Planning: Socio-Economic Considerations for the Mary River Project
(INTERIM REPORT)

Temporary Closure Planning: Socio-Economic Considerations for the Mary River Project

INTERIM REPORT

January 11, 2022



Prepared For:
Baffinland Iron Mines Corporation
2275 Upper Middle Road East, Suite 300
Oakville, Ontario
L6H 0C3

Jason Prno
CONSULTING SERVICES LTD

420 George Street, Suite 310
Peterborough, Ontario • K9H 3R5
(519) 983-8483 • www.jpctl.com

Report Authorship and Review

This report was authored by Jason Prno (PhD) and Melissa Johnston (MA) of Jason Prno Consulting Services Ltd. on behalf of Baffinland Iron Mines Corporation. This report has been reviewed by Baffinland Iron Mines Corporation and may contain various company commitments and statements.

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ABBREVIATIONS

Baffinland	Baffinland Iron Mines Corporation
CEDO	Community Economic Development Officer
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
CPP	Canada Pension Plan
EA	Environmental Assessment
EBD	Entrepreneur and Business Development Program
EI	Employment Insurance
EFAP	Employee and Family Assistance Program
ERP	Early Revenue Phase
FEIS	Final Environmental Impact Statement
FNIYES	First Nations and Inuit Youth Employment Strategy
FTE	Full Time Equivalent
GDP	Gross Domestic Product
GN	Government of Nunavut
ICA	Inuit Certainty Agreement
ICRP	Interim Closure and Reclamation Plan
IHR	Inuit Human Resources Strategy
IIBA	Inuit Impact and Benefit Agreement
IPCS	Inuit Procurement and Contracting Strategy
IPSES	Inuit Post-Secondary Education Strategy
IQ	Inuit Qaujimagatjuqangit
ISSET	Indigenous Skills and Employment Training
MCWG	Mine Closure Working Group
MIHR	Mining Industry Human Resources Council
MSCA	My Service Canada Account
NIRB	Nunavut Impact Review Board
OAS	Old Age Security
Project	Mary River Project
QIA	Qikiqtani Inuit Association
QSEMC	Qikiqtaaluk Socio-Economic Monitoring Committee
RCMP	Royal Canadian Mounted Police
SEMWG	Mary River Socio-Economic Monitoring Working Group
SIN	Social Insurance Number
TSD	Technical Supporting Document
VEC	Valued Ecosystem Component
VSEC	Valued Socio-Economic Component

NOTES

All monetary values presented in this report are in Canadian Dollars (\$CAD), unless otherwise specified.

1. INTRODUCTION

1.1 MARY RIVER PROJECT OVERVIEW

Baffinland Iron Mines Corporation (Baffinland or the Company) is a Canadian mining company with one operating iron ore mine, the Mary River Project (the Project) in the Qikiqtaaluk Region of Nunavut. Baffinland is jointly owned by The Energy and Minerals Group and ArcelorMittal, with a corporate head office located in Oakville, Ontario, a northern headquarters located in Iqaluit, and offices in five North Baffin communities: Arctic Bay, Clyde River, Sanirajak, Igloodik, and Pond Inlet.

The Project consists of two main operating locations including the mine site at Mary River and Milne Port, north of the mine. The two sites are connected via a tote road. A timeline for the Project is presented below:

Year	Key Activity
1986	<ul style="list-style-type: none"> Baffinland begins exploration and development on the property.
2012	<ul style="list-style-type: none"> The Nunavut Impact Review Board (NIRB) issues Project Certificate No. 005, authorizing the construction, operation, and closure of an 18 million tonnes per year operation focused on Deposit No. 1. The Project also included the development of a railway approximately 150 kilometres south to Steensby Inlet.
2013	<ul style="list-style-type: none"> Mine construction begins. Inuit Impact and Benefit Agreement (IIBA) finalized between Baffinland and the Qikiqtani Inuit Association (QIA). Baffinland applies to NIRB to amend its Project Certificate to allow for an Early Revenue Phase (ERP) operation, including the seasonal shipping of 3.5 million tonnes of iron ore from Milne Inlet on the north coast of Baffin Island.
2014	<ul style="list-style-type: none"> NIRB issues an amended Project Certificate approving the ERP. Mining of iron ore commences.
2015	<ul style="list-style-type: none"> First shipment of iron ore.
2018	<ul style="list-style-type: none"> IIBA renegotiated and amended with QIA. Application to amend the Project Certificate to allow for an increase in production to six million tonnes per year; approved by NIRB on a time-limited basis (until the end of the 2019 shipping season, but since extended until the end of 2021). Baffinland applies to amend the Final Environmental Impact Statement (FEIS) in order to expand operations. The proposed Phase 2 Expansion Project would involve constructing a railway from the mine to Milne Port, adding a second ore dock at the Port, and increasing production to 12 million tonnes per year.
2019	<ul style="list-style-type: none"> Baffinland conducts consultations for the Phase 2 permitting process. NIRB-led technical meetings and public hearing for Phase 2 occur. Hearing suspended before completion. Memorandum of Understanding to maximize Inuit employment signed with the Government of Nunavut (GN). Highest level of Inuit employment at the Project achieved to date (i.e. 288 Full Time Equivalents). 5.7 million tonnes of ore stockpiled.
2020	<ul style="list-style-type: none"> NIRB-led public hearing process for Phase 2 continues. Baffinland and QIA sign the Inuit Certainty Agreement (ICA). Onset of COVID-19 pandemic, requiring Nunavummiut employees to be sent home indefinitely with pay and benefits. ~6 million tonnes of ore stockpiled.
2021	<ul style="list-style-type: none"> NIRB-led final hearings for Phase 2 continued in January but were not completed in the anticipated time. Additional sessions were carried out in April until a positive COVID-19 case in Iqaluit forced the

	<p>suspension of the hearing. Final Phase 2 hearings, including a 5-day community roundtable session, were ultimately completed in Iqaluit in November 2021.</p> <ul style="list-style-type: none"> • Baffinland announces the possibility of temporary Project closure in 2022, to Project staff and other stakeholders.
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Additional information on Baffinland’s regulatory submissions and approvals can be found on NIRB’s Public Registry (<https://www.nirb.ca/>).

1.2 REPORT OVERVIEW AND ORGANIZATION

This report has been prepared in accordance with NIRB Project Certificate No. 005 Term and Condition No. 149, and builds on a previous submission made to NIRB in September 2014 (i.e. FHW Consulting 2014). The report considers risks for temporary mine closure and how communities in the North Baffin region may be affected by temporary closure of the Project including economic, social, and cultural effects.¹ It also reviews socio-economic planning considerations related to temporary mine closure. Project Certificate Term and Condition No. 149 states:

<p><i>Project Certificate Term and Condition No. 149</i></p> <p><u><i>Objective:</i></u> <i>To further the understanding of how a temporary closure may impact on the well-being of the residents and businesses of the North Baffin region.</i></p> <p><u><i>Term or Condition:</i></u> <i>Prior to the commencement of operations, the Proponent is required to undertake an analysis of the risk of temporary mine closure, giving consideration to how communities in the North Baffin region may be affected by temporary and permanent closure of the mine, including economic, social and cultural effects and taking into consideration the potential drop in employment between the construction and operations phases of the Project.</i></p>
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Baffinland has developed an *Interim Closure and Reclamation Plan* (ICRP) which outlines the Company’s current approach to temporary and permanent closure of the Project (Baffinland 2019a). There are currently two sections of the ICRP dealing primarily with socio-economic aspects (i.e. Sections 3.5 and 9.10). Temporary closure can generally be considered an unanticipated outcome. Permanent closure, on the other hand, is typically an anticipated and planned event that occurs once a mine’s economic ore has been exhausted.

Permanent closure is defined in the ICRP as the final closure of the Project with no foreseeable intent by the operator to return to either active exploration or mining. Baffinland has also defined two types of **temporary closure** in the ICRP:

¹ The North Baffin communities discussed in this report include Arctic Bay, Clyde River, Sanirajak, Igloodik, and Pond Inlet. Consistent with Term and Condition No. 149, Iqaluit is not specifically addressed in this report, although Baffinland acknowledges the important contributions it makes to Inuit employment and contracting at the Project. Socio-economic effects experienced in Iqaluit as a result of temporary closure would likely be similar to some of those experienced in the North Baffin communities (see Section 3), and many of the same mitigation measures identified by Baffinland would also apply (see Section 4). However, important differences between Iqaluit and the North Baffin communities exist. Some of these include population size and diversity, infrastructure and service availability, connectivity with other communities, and economic growth and diversity, with Iqaluit typically having greater amounts of each. As such, Iqaluit may be better equipped to manage several of the transitions associated with temporary closure.

- **Short-Term Closure:** Cease commercial operations for a period of up to one (1) year while maintaining all equipment and facilities in a state of readiness to resume operations with minimal delay or have Project components at the ready for use to support closure activities.
- **Long-Term Closure:** Extension of a short-term closure to over (1) year for an indefinite period while all Project sites are maintained in a secure condition and all facilities and equipment are de-energized and winterized until the operation resumes or the site is reclaimed as part of permanent closure.

Baffinland has acknowledged that due to various economic drivers (commodity prices, indeterminate delays in regulatory processes, extended maintenance shutdowns, etc.), the Company may be forced into temporary or permanent closure scenarios. Short-term closure also has the potential to extend into long-term closure periods and/or permanent closure in some instances.² While the focus of this report remains on socio-economic aspects of temporary closure (inclusive of both the ‘short-term’ and ‘long-term’ closure definitions presented above), examples related to permanent mine closure are drawn upon where pertinent.³

Baffinland has undertaken detailed engineering, feasibility, environmental, and socio-economic studies to help ensure the Project operates in a safe, responsible, and sustainable manner. For economic reasons that will be elaborated upon later in this report, however, the Project is considered to be at moderate to high risk of temporary closure in the near-term. The Company also understands stakeholder concerns have been raised on this topic. A proactive approach to assessing risks and potential effects is thus warranted. While a previous report on this topic was prepared by Baffinland (i.e. FHW Consulting 2014), the Project has evolved considerably since its release and several new developments have occurred. Various updates are thus appropriate and are addressed in this new report.

This report is organized in the following manner:

- Section 1 (i.e. this section) introduces the report and the scope of its contents;
- Section 2 describes risks for temporary mine closure;
- Section 3 describes potential socio-economic effects of temporary mine closure;
- Section 4 describes socio-economic planning considerations related to temporary mine closure, including relevant mitigation and management measures; and
- Section 5 includes references used in this report.

The content of this report has been informed by several sources including the literature on social dimensions of mine closure (i.e. both peer-reviewed and ‘grey’, and both Nunavut and non-Nunavut focused); northern media reports; environmental assessment submissions; and industry, government, and other publications. Importantly, this report also draws on community and stakeholder perspectives

² Owen and Kemp (2018: 3) also usefully point out, “while some mines close earlier than planned, there are many others where the closure date continues to be extended as more resources are discovered, or new methods of extracting them economically are developed.”

³ Temporary closure is often also referred to as ‘care and maintenance’ in the mining industry. In Baffinland’s case, however, the term ‘care and maintenance’ only refers to short-term temporary closure events.

that have been shared. Baffinland further organized a series of engagements specific to temporary closure planning prior to the submission of this report, including:⁴

- Memorandum to members of the Qikiqtaaluk Socio-Economic Monitoring Committee (QSEMC) and Mary River Socio-Economic Monitoring Working Group (SEMWG) (May 14, 2021).
- Meeting with North Baffin Community Economic Development Officers (CEDOs) (October 5, 2021).
- Meeting with the Mary River SEMWG (October 13, 2021).

Feedback and comments received through these engagements have been integrated into this report. Relevant comments received through public consultation activities conducted for the Approved Project and the Phase 2 Proposal (e.g. public meetings, HTO and hamlet meetings, workshops, NIRB-led hearings) have also been reviewed and considered in this report. Results from an Inuit Employee Survey conducted by Baffinland in 2020 are also addressed.

This report has been prepared in an interim format, as it is understood additional refinements may be identified in the future. Baffinland will continue to welcome community and stakeholder feedback on potential socio-economic effects and planning considerations related to temporary mine closure.

⁴ A meeting with the QSEMC on this topic was also scheduled for October 2021 in Iqaluit, but was subsequently postponed by the Government of Nunavut due to a COVID-19 case in the city.

2. RISKS FOR TEMPORARY MINE CLOSURE

2.1 BACKGROUND

Temporary mine closure is an occasional reality in the mining industry. Although detailed planning and feasibility studies may be completed by developers, unanticipated factors and changes can arise that result in decisions to temporarily close a mining project. Examples of this have occurred throughout the world, including Arctic regions. While the exact causes of closure will differ with each mine, they are often based on mine economics; that is, the risk of mine closure typically increases once production costs (actual or anticipated) exceed the market value (actual or anticipated) of the commodity being produced. However, various economic, social, and environmental risk factors exist and are discussed further below.

This section focuses specifically on the *risks* for temporary mine closure. Risk is “the combination of the probability of occurrence of a defined hazard and the magnitude of the consequences of occurrence” (Spitz and Trudinger 2009: 453). Noble (2020: 120) further notes, “the likelihood or probability of an effect or impact occurring is one component used to measure risk – an uncertain situation involving the possibility of an undesired outcome”. In the context of this report, risk pertains to factors that may influence Baffinland’s decision-making about temporary closure. The more likely these factors are to occur and the more severe their consequences, the more influence on decision-making they are expected to have.

Recent cases highlight some of the factors and complexities associated with temporary/unexpected mine closures in Nunavut. For example, the Hope Bay Project was an approved gold mine in the western Kitikmeot Region owned by Newmont Mining Corporation. In January 2012, Newmont halted all development and exploration work at the project and placed it into care and maintenance. The company cited challenging geologic conditions and a lack of available development capital as causes of the closure (CBC News 2012). Socio-economic effects of this closure were varied and included loss of local jobs and business contracts (George 2012). However, the Hope Bay Project was then acquired by TMAC Resources Inc. in March 2013. TMAC brought the project into commercial production in May 2017 (CBC News 2013a; Nunatsiaq News 2017) but ultimately experienced financial challenges (Bell 2020). TMAC sold the project to Agnico-Eagle Mining Ltd. In February 2021, which is now in the process of completing an operational overview. The project remains in a state of reduced operations while this review is being completed (George 2021).

The Jericho Mine was an operating diamond mine in the western Kitikmeot Region that opened in 2006. Tahera Diamond Corporation was the owner of the mine but prematurely closed it in 2008 (Windeyer 2010). Nunatsiaq News (2014) notes the ore processing system Tahera used didn’t function effectively and that many diamonds were never recovered as a result. Additional struggles cited by the company prior to the closure included a high Canadian dollar, high gas prices, and flat diamond prices (CBC News 2008). Tahera was eventually granted creditor protection in January 2008 after it failed to raise the \$40 million needed to bring supplies into the mine via winter road (CBC News 2008). Shear Diamonds Ltd. Purchased the mine in July 2010, but subsequently left the site in September 2012. In October 2012, the company provided NIRB with a temporary closure plan. The mine was deemed ‘closed or abandoned, temporarily or permanently’ by the federal government in January 2014 (Windeyer 2010, Nunatsiaq News 2014). Nunatsiaq News (2014) notes the company was constrained by debt and had no source of financing. They also cite a September 2012 company announcement which suggested a drop in diamond prices played a role in the mine’s closure.

Perspectives on *potential* mine closure scenarios in Nunavut have also been documented. For example, Rixen and Blangy (2016) reviewed potential closure scenarios related to the Meadowbank gold mine’s anticipated closure in the Kivalliq Region (which, at the time of their research, was expected to close two years earlier than originally anticipated). Rixen and Blangy (2016) identified higher than predicted operation costs, and declines in gold reserves and the gold price index as possible reasons for early closure. It is worth noting, however, that early closure of the mine did not end up occurring and it continues to operate in 2021. This was because the mine operator, Agnico Eagle Mines Limited, ultimately secured approvals to mine additional satellite deposits during Meadowbank’s operations phase.

JPCSL (2018) also reviewed risks and potential socio-economic effects of temporary mine closure related to Sabina Gold & Silver Corp.’s Back River Project in the Kitikmeot Region. Community members there were primarily interested in how long the project would operate, wanted assurances the project would operate for its full lifespan, and wanted to know which safeguards were in place to prevent or mitigate against early project closure. Questions were also raised about potential causes of premature closure, including fluctuating gold prices and economic instability. Concerns were identified regarding a lack of sufficient information to move the project forward, and the possibility of Sabina being purchased by a larger company was noted. Concerns also pertained to the amount of money spent on construction and about Sabina’s capacity to complete the project within its projected budget. Finally, community members wanted to know how Sabina planned to respond if caribou populations were found to be affected by the project, or if caribou occurrences at the mine site forced a temporary shutdown. Many individuals referred to the premature closure of other mining projects in the region during community engagement (JPCSL 2018).

A list of potential risk factors for temporary mine closure is provided in Table 2-1, which are organized by economic, social, and environmental themes. This list was developed using various sources, including the mining-focused literature, media and company reports, and professional experience and judgement. These factors may influence decision-making in an individual or cumulative manner (i.e. temporary closure decisions may be based on a simultaneous assessment of several factors). Furthermore, the factors identified in Table 2-1 are not exhaustive, but instead illustrate the diverse range of risks for temporary closure.

Community and stakeholder feedback related to temporary closure of the Project is summarized in Section 2.2. A scoping-level risk assessment for the Project is then presented in Section 2.3.

Table 2-1: Potential Risk Factors for Temporary Mine Closure

Risk Factors	Examples
Economic Factors	<ul style="list-style-type: none"> • Commodity prices • Exchange rates • Other market conditions (e.g. supply/demand factors) • Ore quantities and grades • Ore accessibility and recovery • Project design and technology • Infrastructure and equipment costs • Transportation, process, and infrastructure disruptions • Labour, fuel, transportation, and production costs • Taxes, royalties, and other payments

	<ul style="list-style-type: none"> • Availability of capital • Debt obligations • Other capital and operating expenses • Other factors and changes
Social Factors	<ul style="list-style-type: none"> • Labour conflict • Health and safety issues • Government policies, oversight, and intervention • Regulatory decisions and delays • Civil unrest, protest, and violence • War • Other factors and changes
Environmental Factors	<ul style="list-style-type: none"> • Environmental conditions and constraints (e.g. geotechnical, hydrological, wildlife) • Extreme weather and environmental events • Other factors and changes

2.2 COMMUNITY AND STAKEHOLDER PERSPECTIVES

Community and stakeholder engagement is an important component of best practice mine closure planning and can assist in identifying closure-related risks, effects, and mitigation (e.g. Bainton and Holcombe 2018, ICMM 2019, Owen and Kemp 2018, Monosky and Keeling 2021, Spitz and Trudinger 2009, Syahrir et al. 2021). Baffinland has developed a comprehensive engagement program for the Project and continues to engage relevant individuals, organizations, and communities about all phases of Project development. The results of this engagement are captured in an engagement database. Community and stakeholder comments and concerns related to temporary closure risks at the Project are provided below.

For example, questions about Company finances and the profitability of Baffinland’s operations have been asked during public consultation conducted for the Project. Some stakeholders have expressed skepticism about the financial vulnerability of the Project and requests have been made for greater financial transparency on the part of the Company.⁵

*If the iron ore prices are dropping so much, do you think you will find a buyer for the product?
[Pond Inlet Public Meeting – February 2015]*

*If you were to make a profit from the ore, will you then be able to build the railway project?
[Pond Inlet Public Meeting – February 2015]*

You’re planning to build ships but you need money to do this. How can you do this without money? What have you done about the railroad project at Steensby Inlet? [Community Workshop (Invited Persons) in Pond Inlet – April 2015]

Regarding Phase 2, during the Early Revenue Phase, Steensby Inlet needed to be paid for, so the Early Revenue Phase was started. When the Early Revenue Phase started, you started to

⁵ Written and verbal comments on these and other topics have also been raised by community and stakeholder groups through the NIRB-led review process for the Phase 2 Proposal. While some example comments have been included in this report, further information can also be found on the NIRB Project Registry (<https://www.nirb.ca/project/124701>).

work on Phase 2 and brought up winter shipping, because you may not be able to afford Steensby. This is a huge deal for the community of Pond Inlet. We don't want the mine to stop but the effects may be huge and it is a concern. We need straight answers. Perhaps Steensby Inlet is being released bit by bit. I wanted to explain that. [Community Workshop (Invited Persons) in Pond Inlet – May 2016]

We have heard that iron ore prices are low but you are still going on. [Igloolik HTO Meeting – June 2017]

Ever since the mine started, we hear updates from Baffinland officials. We are told that the ore is sold, but we never hear details about how much the ore is sold for. We don't hear details about the revenue. [Hall Beach HTO Meeting – June 2018]

I watch TV a lot, mega machines, etc. I believe you had the big Russian airplane, there are big ships in Japan, nothing is impossible, but you have to spend money to make money. It is as simple as that. Don't tell us it is too expensive. Some of us are bilingual, we learn something from TV. You tell us its too expensive, but nothing is impossible today. We landed on the Moon before. New technologies, inventors are busy inventing, we saw the Big Lift ship go by. Nothing is impossible these days. [Pond Inlet HTO Meeting – October 2019]

Myself, I could not believe you not making money, I think that's horse shit. Iron ore is different from the world over, they say it's the best quality, and is the most expensive, but the stock exchange is unpredictable yes. If we had newspapers and we had updates we could monitor the price of iron ore, we look at those prices and I'd say you are making money and revenue as we speak. I want something believable, if you weren't making money you would have declared bankruptcy a long time ago. [Pond Inlet HTO Meeting – October 2019]

I understand the iron ore price is driven by supply and demand, what has changed in the Project that the price is so low and do you see it coming back and when? [CEDO Meeting Participant – October 2021]

Community and stakeholder feedback on temporary closure has been considered in the risk assessment presented in Section 2.3. Baffinland will also continue to document and address feedback on temporary closure throughout the life of the Project. Baffinland's *Draft Community and Stakeholder Engagement Plan* (Baffinland 2019b) contains additional details on the Company's engagement program.

2.3 RISK ASSESSMENT

2.3.1 Overview

This section presents a scoping-level assessment of potential risks for temporary closure of the Project. It considers the risk factors previously described, feedback obtained through community and stakeholder engagement, and other available information. Risk assessment conclusions related to economic, social, and environmental factors are presented at the end of this section.

While all risk factors identified in Table 2-1 could, in theory, influence closure-related decision-making at the Project, a much smaller number of these are anticipated to be relevant to the Project at any one

time. For example, the economic factor ‘ore quantities’ is likely not a significant current risk factor for the Project. This is because the Project is in an early phase of operations and has not yet begun to significantly deplete known ore resources. Likewise, a social factor like ‘war’ in the Project vicinity is considered unlikely in the current political climate and not a significant risk.

For those risk factors that *are* relevant to the Project at any one time, it has been assumed they can influence decision-making in a cumulative manner (as was apparent in previous closure examples). Considering this and the scoping-level nature of the risk assessment exercise presented here, an overall ‘risk acceptability’ approach is employed rather than individual risk factor assessments.⁶ Figure 2-1 plots risk acceptability in a two-dimensional manner, by comparing risk likelihood and consequences in relationship to a risk acceptability boundary. As both likelihood and consequences increase, risks become less acceptable to mine operators. Figure 2-1 has been adapted from a figure presented by Spitz and Trudinger (2009), to help conceptualize risks specific to temporary mine closure.⁷

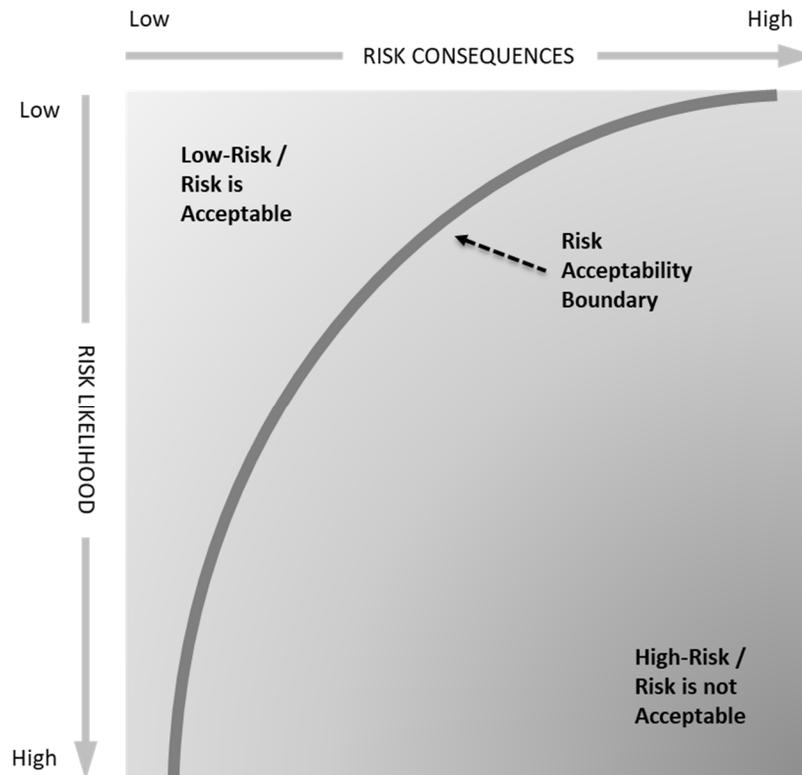
In ‘low-risk’ temporary closure scenarios (i.e. where the likelihood and consequences of risk factors are lower), the option of continuing to operate is usually acceptable to mine operators. In ‘high-risk’ temporary closure scenarios (i.e. where the likelihood and consequences of risk factors are higher), the option of continuing to operate is usually not acceptable to mine operators. The boundary between these two scenarios is the threshold between risk acceptability and unacceptability for mine owners. The area approaching this boundary might also be considered a ‘moderate-risk’ mine closure scenario, where the option of continuing to operate is becoming less acceptable to mine operators.

Current economic, social, and environmental risk factors applicable to the Project are discussed below. The results of individual and cumulative risk assessments are also provided, with a summary of results presented in Table 2-2.

⁶ Individual risk factor assessments are typically associated with the use of a ‘risk matrix’ that compares likelihood of occurrence against severity of consequence. Typical ‘risk likelihood’ ratings might range from *unlikely* to *will occur/high certainty*. Typical ‘risk consequence’ ratings might range from *insignificant* to *catastrophic*. Overall risk rankings depend on the results of this comparison and might include *minor*, *moderate*, *high*, and *severe*. Risk rankings increase the more an individual factor approaches both a *will occur/high certainty* likelihood and *catastrophic* severity of consequence (Spitz and Trudinger 2009).

⁷ Spitz and Trudinger’s (2009) original figure was not specific to temporary mine closure and did not explicitly conceptualize risks in a cumulative manner. Likewise, ‘low-risk’, ‘moderate-risk’, and ‘high-risk’ scenarios were not included in their original figure.

Figure 2-1: Risk Acceptability Profile, Adapted from Spitz and Trudinger (2009)



2.3.2 Economic Factors

Baffinland has undertaken various engineering and feasibility studies, which explored Project planning and design options, projected capital and operating expenses, anticipated rates of return, ore availability and recovery, and other topics. Some of this work assessed the sensitivity of Project economic factors to potential changes in market and other conditions (e.g. iron ore price, fuel price, exchange rates).

The viability of the Project in its current configuration is directly related to the price of iron ore on the open market. Recent economic forecasts for iron ore prices obtained by Baffinland suggest notable decreases occurring in the near future. As confirmed by Baffinland in April 2021, the long-term forecast for 62% Fe (i.e. the most relevant metric for the Project) shows the price dropping to below USD \$100/tonne in 2022 and 2023. This threshold (i.e. below USD \$100/tonne) is important, as under the Project's current production rate and cost structure, Baffinland has noted it will not have a financially viable operation (Baffinland 2021).

Impact Economics (2021) confirms low iron ore prices and the high cost of Project operations have hampered Baffinland's financial success for several years. Baffinland's Phase 2 expansion, including its shift to lower-cost rail transportation and increased shipping volumes, is designed to help ensure the mine's ongoing viability in the future. More specifically, Phase 2 is intended to:

- Bring needed efficiencies to the mine production process.

- Lower the cost of transportation.
- Improve the financial viability of the mine.
- Ensure long-term benefits to local and regional Inuit.
- Achieve sustainability in the Project.

Impact Economics (2021: 8) notes, “To make this happen, Baffinland must invest more money into the Project, building a railway to replace hauling operations on the Tote Road, adding capacity to its production process, and increasing the shipments of iron ore. However, investors will only fund the investments if a positive financial return can be achieved and financial risks reduced, and the evidence to date proves this will not happen with the current approach and susceptibility of the Project to variable iron ore price markets.” Unfortunately, current delays in the Phase 2 regulatory review process associated with COVID-19, and no clear indications of new Inuit support for Phase 2, have exacerbated Baffinland’s current economic situation.

These economic factors indicate a moderate to high risk exists for temporary Project closure (i.e. the option of continuing to operate is becoming increasingly unacceptable to Baffinland). To be clear, this conclusion is based on economic forecasts received by Baffinland and Baffinland’s own economic projections. Temporary closure of the Project is not a foregone conclusion and changes in future conditions could change the risk profile. However, available information suggests the Project is currently facing notable economic risks.

2.3.3 Social Factors

Nunavut, and northern Canada more generally, continue to have a stable social and political climate that is overseen by effective government and governance mechanisms at multiple levels (e.g. Prno and Slocombe 2012). Baffinland also has an IIBA with QIA (QIA and Baffinland 2018), which provides certainty related to Project tenure and development, establishes cooperative oversight and mitigation measures, and provides guaranteed benefits to Inuit while the Project continues to operate.

However, the Project has encountered social risk factors in the past. A weeklong blockade by local protesters in February 2021 resulted in a temporary shutdown of operations at an estimated cost of \$14 million (Thompson 2021). A COVID-19 outbreak at the Project in May 2021 also led to a temporary suspension of mining operations when all non-essential workers were sent home (CBC News 2021). As noted previously, current delays in the Phase 2 regulatory review process have created additional challenges for Baffinland.

Overall, the Project is considered to be at low to moderate social risk for temporary closure. This is because various social risk factors continue to exist and influence operational decision-making. However, these social risks have generally resulted in temporary and/or minor impacts at the Project to date, and the option of continuing to operate has been acceptable to Baffinland. Delays associated with the Phase 2 regulatory review process are also relevant, but are more pertinent to the economic risk assessment discussed previously.⁸

⁸ For example, Baffinland’s ability to secure Project financing has been affected as a result of social and other considerations. Based on factors including (i) an indeterminate delay on the Phase 2 process, (ii) no clear indications of new support for Phase 2, and (iii) forecast reductions in iron ore prices in future years, Baffinland (2021) notes its shareholders have indicated they do not intend to provide further capital, as they have done previously, for the future development of the mine, until such time as the situation changes.

2.3.4 Environmental Factors

Baffinland has completed a comprehensive environmental assessment (EA) (Baffinland 2012, NIRB 2012) and has undergone three subsequent Project Certificate amendment processes (NIRB 2014, 2018, and 2020) for the Approved Project.⁹ These involved significant regulatory and stakeholder review, and resulted in all necessary approvals being issued to proceed with the development and operation of the Project. These assessments explored potential Project impacts on the atmospheric, terrestrial, freshwater, marine, and human environments. Likewise, potential effects of the environment on the Project itself were assessed (e.g. geo-hazards, extreme weather events, global climate change), as were the potential for accidents and malfunctions. Various mitigation measures and management plans were also presented. NIRB Project Certificate No. 005 includes terms and conditions that now guide Project development activities.

There is no evidence to suggest the presence of notable environmental risk factors for temporary Project closure at this time. The Project is thus considered to have low environmental risk for temporary Project closure.

2.3.5 Summary

After considering current economic, social, and environmental risk factors, the Project has been assessed to currently be in a ‘moderate to high’ risk profile for temporary closure (Table 2-2). This conclusion considers the highest risk rankings identified in all categories in addition to the role of other pertinent risk factors.

In accordance with Project Certificate Term and Condition No. 149, this section has considered risks for temporary closure of the Project. This analysis may be updated as necessary by Baffinland to reflect any significant changes to the Project or socio-economic conditions in the region that may increase the risks for temporary mine closure.

Table 2-2: Risk Assessment Conclusions for Temporary Project Closure

Risk Factors	Risk Assessment Conclusion
Economic Factors	Moderate to high risk for temporary Project closure
Social Factors	Low to moderate risk for temporary Project closure
Environmental Factors	Low risk for temporary Project closure
Overall Conclusion	<i>Moderate to high risk for temporary Project closure</i>

⁹ In 2012, NIRB issued Project Certificate No. 005 which provided approval for Baffinland to mine 18 million tonnes per annum (Mtpa) of iron ore, construct a railway to transport the ore south to a port at Steensby Inlet which operates year-round, and to ship the ore to market. The Project Certificate was subsequently amended to include the mining of an additional 4.2 Mtpa of ore, trucking this ore by an existing road (the Tote Road) north to an existing port at Milne Inlet, and shipping the ore to market during the open water season. The total approved iron ore production was increased to 22.2 Mtpa (4.2 Mtpa transported by road to Milne Port, and 18 Mtpa transported by rail to Steensby Port). This is now considered the Approved Project. The 18 Mtpa Steensby rail project has not yet been constructed, however 4.2 Mtpa of iron ore is being transported north by road to Milne Port currently. Two time-limited production increases to 6 Mtpa of iron ore transported north by road to Milne Port have also been approved by NIRB.

3. POTENTIAL SOCIO-ECONOMIC EFFECTS OF TEMPORARY CLOSURE

3.1 BACKGROUND

Socio-economic effects of mine closure have been described in the literature from various perspectives and for different regions, including the Arctic. Communities can experience mining projects and the effects of mine closure differently, and it has been noted that closure processes must consider relevant social dimensions (e.g. Bainton and Holcombe 2018, ICMM 2019, Owen and Kemp 2018, Monosky and Keeling 2021, Spitz and Trudinger 2009, Syahrir et al. 2021, Vanclay et al. 2015). Dale et al. (2018) further highlight local perspectives on mining, the values residents hold, and effects that are experienced can all differ between Arctic communities. The research literature (reviewed below) describes varied community experiences specific to mine closure in northern Canada. However, this is an emerging field and information gaps remain.¹⁰

Socio-economic effects associated with mine closure are typically considered adverse and linked to the loss of mine-related employment, business opportunities, and other economic benefits. However, effects may also occur in areas such as population demographics, education and training, health and well-being, land and resource use, public infrastructure and services, and others. Bainton and Holcombe (2018: 468) state, “the social impacts of closure are often connected to the level of local dependency upon resource extraction for the economic base, infrastructure and service provision, and governance.” They also note that for land-connected Indigenous peoples, social implications are often linked with environmental changes. When not managed properly, mine closures can “have significant adverse effects on local economies, contribute to impoverishment, trigger the loss of key services, and lead to out-migration” (Bainton and Holcombe 2018: 469). Similar issues have also been documented for northern Canada (e.g. Monosky and Keeling 2021).

On the other hand, some aspects of mine closure can be considered positive. This may happen when reductions in environmental and social stresses associated with previous mining activities occur, and when opportunities are created for long-term community development through mining. Additional discussion on this topic is provided below and draws on recent and historic examples of mine closures in Nunavut. Examples of both temporary and permanent mine closure are provided for completeness.

3.1.1 Recent Examples

Socio-economic effects have been documented with recent mine closures in Nunavut, including the Kitikmeot Region’s Hope Bay Project and the Jericho Mine. Temporary closure of the Hope Bay Project resulted in the loss of 150 local jobs and \$70 million annually in contracts with Kitikmeot Region and Nunavut-based businesses, in addition to loss of revenues for the Kitikmeot Inuit Association (George 2012). Likewise, closure of the Jericho Mine resulted in the loss of 160 jobs for Kitikmeot Region Inuit and created other economic stresses (CBC News 2013b, Rohner 2016, Windeyer 2010).

¹⁰ Bainton and Holcombe (2018) state that limited technical literature on the social aspects of mine closure exists and limited expertise is available in this field. Rixen and Blangy (2016: 297) highlight “impacts on community well-being, especially after mine closure, remain understudied”, while Green (2015: 317) notes, “there has been less scholarly attention to mine closures and heritage in the [Canadian] North and, more specifically, in Aboriginal communities, though this area of scholarship is growing.”

Perspectives on *potential* mine closure scenarios in Nunavut have also been documented. For example, Rixen and Blangy (2016) documented potential closure scenarios as envisioned by Inuit in Qamini'tuaq (Baker Lake), prior to the Meadowbank gold mine's anticipated closure. Study participants worried mine closure could "produce a sharp drop in local employment with diverse ripple-effects for well-being: stresses to family life, food security, physical health, mental health and school attendance. At the same time, residents hope that mine closure will relieve current stresses on well-being such as intensive mine schedules, wildlife disturbance, contamination and health problems" (Rixen and Blangy 2016: 309). Based on their findings, the authors proposed mitigation that included a substantial re-investment of mine profits in local mental health, education, food security, and job training programs in order to absorb the initial shock of mine closure.

JPCSL (2018) also reviewed potential socio-economic effects of temporary mine closure related to Sabina Gold & Silver Corp.'s Back River Project in the western Kitikmeot Region. Community members expressed concerns that project closure would negatively impact their communities. Having experienced previous mine closures, individuals wanted assurances that Sabina would prioritize community well-being. Several questions were raised about employment and whether jobs and/or compensation would be provided to laid-off employees. As well, individuals wanted to know what benefits would be available to them in the event of closure and who would assist in administering such benefits. Community members also wanted assurances that lines of communication would remain open in the event of project closure, as some questions had gone unanswered following previous mine closures. Concerns were raised about the responsibility to clean up contaminants if the project were shut down and whether there would be compensation for any declines in caribou populations. As well, there were several comments about a general loss of trust in mining companies and a lack of enthusiasm for approving projects due to a pattern of expectations not being met. Community and stakeholder feedback was subsequently considered by Sabina when identifying potential effects and developing mitigation measures specific to temporary mine closure (see JPCSL 2018 for further information).

3.1.2 Historic Examples

Historic closures of mining operations in Nunavut provide additional insights on this topic. It should be noted, however, these mines were established prior to the Nunavut Agreement and its associated governance instruments (e.g. modern land use planning and environmental assessment processes, requirements for IIBAs, and increased Inuit involvement in decision-making). These historic mines thus had fewer socio-economic and community engagement obligations, and somewhat mixed histories as a result.

For example, the North Rankin Nickel Mine operated from 1957-1962 in Rankin Inlet, Nunavut. Keeling and Boulter (2015: 38) note, "the mine's sudden closure in 1962 devastated the local economy, threatening the community's very survival and forcing many Inuit to leave the community to seek alternate employment or to return to traditional harvesting activities." Keeling and Boulter (2015: 48) further describe the closure process as a "chaotic series of initiatives that involved elements of voluntary relocation, migration (back to previous settlements), economic diversification, and (eventually) the move of Northern Affairs' Keewatin regional headquarters from Churchill, Manitoba, to Rankin Inlet as an economic stimulus... Inuit workers and their families recalled closure as a time of hardship and adjustment." However, they also note, "the mine remains central to the identity of the community and its Inuit and non-Inuit residents alike" and "mining is still regarded as the community's reason for being and as a shaper of its character" (Keeling and Boulter 2015: 38 and 51).

Closure effects of the Polaris mine in Nunavut have also been examined. The Polaris lead-zinc mine was located 100 km from the community of Resolute and operated from 1982-2002. Green (2015: 329) notes “Resolute residents felt no sense of loss when they discovered the mine would cease operation. Economically, since there had been little spinoff business as a result of the mine, there was no significant service sector loss or economic disruption upon closure. The biggest impact on the community was the loss of jet services.”

The Nanisivik lead-zinc mine operated from 1976-2002 and was located 30 km from the community of Arctic Bay. Midgley (2015: 297-298) notes, “for the community of Arctic Bay, the mine’s closure left behind many uncertainties: no one knew whether other economic activities could be undertaken at Nanisivik, and concerns grew over the environmental impacts of mining... In public meetings, community members expressed concern about the destiny of the Nanisivik townsite, the level of community involvement in reclamation activities, and the impacts of mining on local wildlife and the land upon which the Inuit depended for hunting.”

Tester et al. (2013: 29) further discuss the lack of attention paid to Inuit social considerations in the planning and operation of the Nanisivik mine. They note, “in the planning process, minimal mention was made of social impacts. Problems that could reasonably have been anticipated were not explored, nor were steps taken to address them.” Tester et al. (2013: 23) also describe the narrow focus of government and company officials on Inuit employment at the mine as a means for achieving community and social development objectives: “In practice, these social concerns were reduced to the provision of employment: a trickle-down approach assuming that employment would take care of other social and cultural problems”. Outcomes, however, were much less than hoped for, with Inuit employment never meeting set-out targets and turnover remaining high. Tester et al. (2013) suggest this was because Inuit placed greater importance on participating in culturally important activities than maintaining long-term formal employment. They also argue Inuit cultural aspirations remain largely unaddressed with regard to modern industrial development activities.

Brubacher and Associates (2002) documented the legacy Nanisivik contributed to building the community of Arctic Bay, the impacts mine closure would have on the community, and lessons learned from the experience. They found:

- Nanisivik made limited contributions to Arctic Bay’s development capacity. Some of the income earned at the mine contributed to involvement in the traditional economy and helped to maintain and possibly strengthen social networks of sharing. Some individuals benefited from attendance at the Nanisivik school where they learned skills that helped them to function well within local hamlet jobs.
- Children of parents who worked at the mine benefited from increased family income and from seeing parents productively engaged in work. The nature of these positive impacts on later outcomes in children was not well known. The potential concern that children of workers would be less-exposed to traditional skills was not supported in the research.
- Indirect negative effects on individual well-being were acknowledged. These arose particularly as a side-effect of alcohol abuse and misuse that was widely attributed to Nanisivik’s lax alcohol policy. Those affected through alcohol-related domestic violence included people who had a connection to the mine as well as those who had no connection. This latter group did not

share in the benefits of increased household income, only in the negative impacts.

- The long-term well being of some children was affected by the Nanisivik alcohol effect. Exposure to domestic violence and fetal alcohol spectrum disorders were known to have significant impacts on future outcomes. Little was known about the details of these sorts of indirect impacts in Arctic Bay, however, as no monitoring was undertaken.
- Overall, the Nanisivik experience did not provide a dramatic enhancement of Arctic Bay's capacity to achieve its development goals. The rationale for creating the Nanisivik townsite was made using arguments that it would contribute to development in the area. Opportunities to play this developmental role, however, did not seem to have attracted the focused attention needed to capitalize on them.
- The mine could have had a greater positive influence if a consistent focus on its role in local development capacity-building had been maintained by public sector parties, alongside the private sector function of running a profitable mine.
- The public investment in Nanisivik that was rationalized for its potential to contribute to regional development could have had greater developmental impacts had it been spent directly on local development capacity-building.

The closure of the Nanisivik mine, with the associated loss of direct and indirect jobs and income was expected to have significant economic impacts on the community of Arctic Bay. The potential for social impacts related to loss of income and jobs was also assessed as high. Brubacher and Associates (2002) identified the following recommendations to guide stakeholders in addressing these closure effects:

- Establish certainty about future use of the Nanisivik facilities.
- Commemorate the Nanisivik experience.
- Monitor and assist those affected by lost income.
- Create transitional jobs and work experience programming.
- Support micro- and small-scale entrepreneurship.
- Provide infrastructure in support of durable economic development.
- Support the Arctic Bay Working Group on Nanisivik closure to prepare a community work plan in support of an adjustment strategy.

Some of the key lessons learned identified by Brubacher and Associates (2002) for future community-mining projects included the following:

- Maintain a focus on community development goals.
- Ensure corporate memory is documented and available to the community.
- Monitor social and economic conditions related to these goals.
- Maintain open channels of communication between the mine, the community, and workers.
- Manage alcohol according to community wishes.
- Address 'future use' options and opportunities during the design phase.
- Set up pre-employment orientation for all who are interested.

Bowes-Lyon et al. (2009) have also summarized the socio-economic impacts of both the Polaris and Nanisivik mines. Short-term impacts of the mines included increased employment income, an improved standard of living in both communities, availability of jet service, and contributions to local education, but also increased availability of alcohol in the communities. Long-term impacts of the mines included the creation of businesses and business-related experience and contributions to local education and infrastructure. Bowes-Lyon et al. (2009: 386) also describe negative long-term impacts related to community engagement and note, “community members felt that they had few forums in which to voice their concerns or discuss mine plans with mine management” and that “residents felt left out of decision-making.”

Overall, Bowes-Lyon et al. (2009: 372) conclude “that because the benefits were not numerous and mostly did not persist after mine closure these mines did not contribute to the long-term sustainable development of the region. To increase socio-economic benefits and assist communities with fulfilling their sustainable development objectives, mining companies in Nunavut should emphasize education and training for locals and encourage local business development and partnerships, through strong relationships and close communication with involved stakeholders.”

Throughout northern Canada more generally, Monosky and Keeling (2021: 2) note, “mine closure can cause direct and indirect negative impacts on local and regional industries as contracts end, travel to the region is reduced, and demand for goods and services decreases. Widespread loss of employment, investment, tax revenue, infrastructure, and services and population decline are also common experiences, resulting in social disruption and stress. Furthermore, the benefits promised to local communities by new mine developments, like economic growth and diversification, often fail to meet expectations or last long after closure.”

The above discussion illustrates the various socio-economic effects mine closure can have in Nunavut. These include the loss of substantial economic benefits (e.g. employment and business income, royalties, and taxes) and skills development opportunities, in addition to related spin-off effects (e.g. family and community stresses associated with mine closure and unemployment). While this discussion is by no means exhaustive, it does highlight the need to strongly consider social aspects and community input in closure planning, and to develop appropriate mitigation and management measures for the socio-economic environment. It also suggests mechanisms should be in place to address long-term community sustainability issues and to create opportunities for durable economic benefits to be realized through mining.

Community and stakeholder engagement results and socio-economic effects specific to temporary closure of the Project are described further in Sections 3.2 and 3.3. Project-specific mitigation and management measures are described in Section 4.

3.2 COMMUNITY AND STAKEHOLDER PERSPECTIVES

As noted previously, a comprehensive community and stakeholder engagement program has been developed for the Project and Baffinland continues to engage stakeholders about all phases of Project development. Comments and concerns related to potential effects of temporary Project closure are provided below.

Some historic (i.e. pre-Project approval) comments were received on the topic of closure. These were limited in number and scope and typically pertained to permanent mine closure. Questions were asked

about post-mining plans and effects, remediation activities that would occur, and how remaining infrastructure would be managed. The need for long-term community benefits to be generated through mining activities was also noted.

I am very much in favour of employment being created. The feeling is that the mine is the only place where they can obtain employment... but there are other places. There will be probably other problems that will arise in the future that will be taken care of. I have a son who is 18 and by the time he is 36 the mine will close. What do we do with their future? [Igloolik Public Meeting – March 2008]

My comment, I am glad to see a mining company planning to start a mine because we need jobs... but the concerns that we have heard, I want them to be respected and at least looked at... When Nanisivik was closing out I was part of a committee and we had meetings in Iqaluit and here in Arctic Bay, and we asked what the community wanted in terms of the closure of the Nanisivik Mine. But whatever we requested in the meetings, not even one was respected or followed. Having meetings have no purpose if they don't listen. When Nanisivik was closing down, the only thing we heard is that they have no money for benefits to follow those recommendations. [Arctic Bay Public Meeting – March 2008]

I think I heard that in the previous mine—not here in Pond Inlet but somewhere else—the equipment, they put all the infrastructure underground. You're not planning to do that just leave your equipment? There will be a lot of infrastructure. You're not planning to leave in the pit or somewhere. It might cost a lot to bring down south. [Pond Inlet Hamlet Council Meeting – March 2008]

I have a concern about what happens when they run out of ore. What will happen to the infrastructure? Is there a reclamation plan? [Pond Inlet Caribou Workshop – February 2008]

Once the ore is removed, Clyde River and Pond Inlet have a lot of seismic activity. What will happen to the land? Will it become unstable? Will it affect navigation if that big piece of iron is removed? [Clyde River Land Use Workshop – July 2008]

Some comments on the topic of closure were also received through public consultation conducted for the Phase 2 Proposal and Baffinland's ongoing operations. For example, interest in Baffinland's plans for progressive reclamation was expressed, concerns about potential post-mining effects were identified, and the need to protect the environment during closure was noted. A number of questions on the Project's lifespan were also raised and interest was expressed in how long the Project would continue to operate. A longer mine life was acknowledged by some to be of greater benefit to surrounding communities.

When they dig down the whole mountain what are we going to call it? [Hall Beach Public Meeting – November 2016]

You mention that the mine is going to operate for 100 years, can things start being cleaned up at the mine right now? [Pond Inlet Public Meeting – May 2017]

No close date for the Project [has been identified]... Abundance of narwhals and seals are noticeable after Nanisivik's operations. [Comment from Arctic Bay during Community Meetings at Mary River – July 2019]

I myself want the environment protected. Although the job opportunities are important, I also want the environment protected. While they are exploring, once they have done their exploration, we know they won't be making any money and they have to clean up the area. They have to close it and try to put it back the way it was before. Will they go back to Baffinland, or will they be surplus and given to QIA? If that were to happen, if they make money, they would probably stay there. If they are going to drill deep down, what will they use to close them up [the drillholes]? [Meeting with Igloodik Hamlet Council, HTO, and QIA – April 2018]

How long will Phase 2 take place? How many phases are there in your mining project? [Igloodik Public Meeting – February 2015]

Can you provide a reasonable estimate on the new mine life? My rough math indicates that if the railroad isn't built for three years, your mine life will extend to 30 years. This is important for the group to understand, as trucking on the road will be extended through this time period. This estimate is only for Deposit #1, as well. [Community Workshop (Invited Persons) in Pond Inlet – November 2015]

If Phase 2 goes ahead, you'll be allowed to truck more ore down the tote road. But the railroad won't be built right away. Would the mine life be longer if you only used the tote road? How would this affect mine life? [Community Workshop (Invited Persons) in Pond Inlet – November 2015]

Nanisivik expanded its mine life by 10 years; that was seen as a good thing in Arctic Bay. [Community Workshop (Open House) in Arctic Bay – May 2016]

You mention that the mine is going to operate for 100 years, can things start being cleaned up at the mine right now? [Pond Inlet Public Meeting – May 2017]

The 4.2 Mtpa are approved, now you are asking for 12 Mtpa, would it decrease the life of mine? [Arctic Bay Hamlet Council Meeting – May 2017]

I am wondering, how long the life of the mine will be, will it be going for my grandchildren, and this will get more opportunities for employment for Inuit. Will it continue into the next generation? [Hall Beach Public Meeting – June 2017]

How many years' worth of mining do you believe there are? [QSEMC Meeting – June 2018]

Additional comments on the potential impacts of temporary closure were made by participants in meetings held with North Baffin CEDOs and members of the Mary River SEMWG in October 2021.

Closure will have a huge impact and will not be an easy process for the company, employees, or communities. [CEDO Meeting Participant – October 2021]

... [there is a] step between the loss of employment, employment insurance, and welfare. This is important as it is likely to delay the full financial support provided to an individual by at least a month following a loss of employment due to closure and create additional impact. [CEDO Meeting Participant – October 2021]

I recognize it will be a big impact if the Project goes into temporary closure, it will create a big void should this happen. [Mary River SEMWG Meeting Participant – October 2021]

Comments on the topic of closure and potential layoffs were also received during the Community Roundtable portion of the November 2021 NIRB Public Hearing for the Phase 2 Proposal. For example:

If the Phase 2 proposal is not approved, would you lay off the people who are from Pond Inlet who are working at Mary River, would you lay them off even though there's going to be other people who are maintaining the operation of the mine? [Pond Inlet Community Roundtable Participant – November 2021]

I don't know where I heard this, but I want to know whether this is true or not. If the proposal is not approved, that they would have to fire or lay off people who are working at the mine at the present time. Is that true? [Igloodik Community Roundtable Participant – November 2021]

In addition, Baffinland regularly conducts an Inuit Employee Survey to address NIRB Project Certificate requirements and collect employee perspectives on important topics of interest. The most recent survey was conducted in 2020 and addressed family and community-related effects of Project employment (JPCSL 2020). Survey results suggest temporary closure of the Project and related employment losses could adversely affect key socio-economic benefits that have been realized by Inuit to-date. For example:

- 67% of respondents noted their ability to provide for themselves and family since obtaining Project employment was 'improved' or 'very improved'.
- 50% of respondents noted the health and well-being of themselves and family since obtaining Project employment had 'improved' or 'very improved' (39% provided a 'neutral' response).
- 44% of respondents noted their ability to participate in harvesting/land-based activities since obtaining Project employment had 'improved' or 'very improved' (47% provided a 'neutral' response).
- 32% of respondents noted their community well-being had 'improved' as a result of the Project (49% provided a 'neutral' response).

Individual comments received from the 2020 Inuit Employee Survey provide additional context on the benefits of Project employment and what could be lost during a temporary closure phase:

I realize I can have a career at the mine site. Thank you for employing me. [2020 Inuit Employee Survey]

I am able to support my small family and help my parents. [2020 Inuit Employee Survey]

I have bought myself a 4-wheeler, ski-doo and I have my own vehicle since I started working at the site. I am also able to help out with groceries now with my siblings. [2020 Inuit Employee Survey]

As a single parent I am now more able to provide what my children need (better food) because I make more money. [2020 Inuit Employee Survey]

Providing food on the table is easier. [2020 Inuit Employee Survey]

I have money to buy supplies and 2 weeks off offers time to harvest. [2020 Inuit Employee Survey]

I am able to help with gas and groceries and some hunting equipment. [2020 Inuit Employee Survey]

They provide job opportunities and training that we wouldn't have the opportunity in the community. [2020 Inuit Employee Survey]

All I see now are new 4-wheelers, skidoos, and vehicles coming in steady since the mine opened. [2020 Inuit Employee Survey]

Similar comments on the benefits of Project employment were voiced during the Community Roundtable portion of the November 2021 NIRB Public Hearing for the Phase 2 Proposal. These comments were provided during a video submission prepared by the International Union of Operating Engineers (IUOE) Local 793, which included statements from 20 Inuit employees of Baffinland. The video was introduced by a resident of Pond Inlet who also provided the following comment:

Hello. I'm an employee of Baffinland. I am training as a mechanic for pickup trucks. I've been training all year. In 2018 I started working for Baffinland. I am in favour of seeing Phase 2. Since I started working there, I'm able to provide for my family, and I'm able to purchase items that my children want. And because I don't go out hunting, we're only purchasing items from our grocery store -- or local stores. I would like to see Phase 2 be given the green light. [Pond Inlet Community Roundtable Participant – November 2021]

Community and stakeholder feedback has been considered in the identification of temporary closure effects presented in Section 3.3 and the Project-specific mitigation and management measures reviewed in Section 4.4. Baffinland will also continue to document and address feedback on temporary closure throughout the life of the Project. Baffinland's *Draft Community and Stakeholder Engagement Plan* (Baffinland 2019b) contains additional details on the Company's engagement program.

3.3 EFFECTS ASSESSMENT

3.3.1 Overview

This section reviews potential socio-economic effects from temporary Project closure on the North Baffin communities. Socio-economic effects were previously described in Volume 4 (i.e. Human Environment) of the FEIS and FEIS ERP Addendum (Baffinland 2012 and 2013), and more recently in

Technical Supporting Document 25 (TSD-25) of the FEIS Phase 2 Addendum (Baffinland 2018). These documents considered a wide range of issues and were completed in concordance with comprehensive guidelines provided by NIRB. They were also informed by insights obtained through community engagement, per best practice EA (e.g. Arctic Council 2019, Noble 2020, Vanclay et al. 2015).

Using a scoping-level approach, Table 3-1 summarizes the anticipated socio-economic effects of temporary Project closure. This summary draws on findings from the FEIS documents identified above and integrates supplemental insights from the literature and community engagement activities where appropriate. Additional information on the potential economic effects of an employee layoff is provided in Section 3.3.3. This information has been included to accompany the conclusions presented in Table 3-1 and to directly address stakeholder concerns that have been expressed on the issue. While layoffs are not immediately imminent at the Project, this analysis examines economic effects that could arise and government support that might be available to unemployed workers should one occur.

Potential effects of temporary Project closure are described in relation to Valued Socio-Economic Components (VSECs) assessed in the FEIS and FEIS addendums including:

- Population demographics
- Education and training
- Livelihood and employment
- Economic development and self-reliance
- Human health and well-being
- Community infrastructure and public services
- Contracting and business opportunities
- Culture, resources, and land use
- Benefits, royalty, and taxation
- Governance and leadership

This summary is further focused on key indicators and residual effects assessed for each VSEC in the FEIS and FEIS addendums. Key indicators are subsets of VSECs used to communicate information about the effects of the Project. The use of indicators is a pragmatic approach to conducting an effects assessment, where evaluating every potential effect on the receiving environment is not practical. Key indicators may have one or more residual effects associated with them.

3.3.2 Summary of Effects

Table 3-1 identifies several adverse effects that could arise in North Baffin communities from temporary closure. These are primarily related to the loss of the Project's substantial economic opportunities. They also include spin-off effects, including those associated with increased family and community stresses that can accompany sudden unemployment and uncertain economic futures.

A recent publication from the Macdonald-Laurier Institute (i.e. Exner-Pirot 2021) highlights the importance of the resource development sector to Indigenous economic self-determination in Canada. Specifically, Indigenous participation in this sector exceeds almost every other sector in terms of procurement contracts, workforce participation, employment income, royalties, and own-source revenues. Indigenous businesses are also more than 40 times more likely to be engaged in the resource sector than the average Canadian business. More simply put, resource development "offers the most viable economic opportunities for many Indigenous communities" (Exner-Pirot 2021: 28). Proportionally, the mining industry is also the largest heavy industrial employer of Indigenous peoples in Canada and provided over 16,500 jobs in 2020 (MAC 2021).

Baffinland is currently the largest private sector employer in the Qikiqtaaluk Region, a major employer of Inuit and provider of Inuit business contracts, and key generator of regional economic benefits (e.g. Aglu and Stratos 2021). Any significant reductions in Project operations are thus likely to be experienced adversely across the region. This situation is made more serious by the high levels of unemployment and other persistent socio-economic challenges faced by Nunavummiut, and the lack of alternative large-scale economic development opportunities. Mining is considered a key contributor to Nunavut's economic future; no other sector has been identified that offers the same levels of economic growth and employment opportunities for Inuit. The territory's young and rapidly growing Inuit population will also require additional employment opportunities in the future that mining can help provide (CanNor 2019, Conference Board of Canada 2020, ITK 2018, Onalik 2021).¹¹

To help put potential lost Project opportunities into perspective, it is worth highlighting the economic contributions the Project is anticipated to make at local, territorial, and national scales over its lifespan. Recent economic modelling conducted by Baffinland (i.e. Baffinland 2018, TSD-25) indicates:

- Total Canadian expenditures by Baffinland could reach \$19.8 billion, which includes approximately \$4.7 billion that will be spent in Nunavut. These values include expenditures associated with the construction and operation of the Project, wages and salaries, and taxes and royalties.
- Total Gross Domestic Product (GDP) that could be generated in the Nunavut economy is estimated at \$19.3 billion. The average annual GDP generated by the Project (over a 24-year period) could amount to \$0.8 billion. This represents 32.9% of the 2015 territorial GDP. The total GDP that could be generated in the Canadian economy is estimated at \$30.7 billion.
- 16,221 total Full-Time Equivalent (FTE) positions will be generated in Nunavut (including direct, indirect, and induced effects). Likewise, 136,745 total FTEs will be generated in Canada.
- Revenues generated for the Government of Nunavut (GN) by the Project could total \$680 million, which includes payroll tax, fuel tax, corporate income tax, and other fiscal revenues. Fiscal revenues for the GN will average \$28.3 million per year (over a 24-year period), which represents an increase of 26.1% of the GN's estimated fiscal revenues for 2016-2017 (i.e. \$108.5 million).
- Revenues for Nunavut Inuit organizations could total \$2.0 billion. This includes federal mineral royalties, IIBA mineral royalties, lease payments for the use of Inuit Owned Land, IIBA fund contributions and administrative expenses, and aggregate royalties.

¹¹ Jimi Onalik, GN Deputy Minister of Economic Development and Transportation, highlighted the importance of the Project in statements to NIRB on Baffinland's Phase 2 Proposal in April 2021 (i.e. Onalik 2021). In one instance, Onalik (2021: 2914-2915) noted, "The challenge Nunavut faces is pretty stark when it comes to the economy. We have the highest rates of unemployment. We have some of the highest rates of food insecurity, meaning people don't have in many cases enough to eat, and we also have a challenge that's facing us over the coming two decades, and that's something that the Government of Nunavut is very concerned about. In addition to the people who are currently unemployed and who are currently unable to provide the necessities of life for their family, we're facing 10,000 young people across Nunavut becoming adults. That's a very high number, and in the five affected communities for the Baffinland project, there will be 1,800 young people becoming adults over the next 10 years... The opportunities that this project represents are huge when it comes to employment. In many ways, there's not much that can replace in terms of employment the opportunities that are presented... we are hopeful, as the Government of Nunavut, that we can find major opportunities because as we looked at the different sectors, mining represents one of the largest opportunities for employment within Nunavut."

- Revenues generated for the Federal Government by the Project could total \$1.7 billion, which includes fuel tax, aggregate royalties, corporate income tax, and other fiscal revenues.
- The Project will likely have a significant positive impact on territorial exports and the territorial balance of trade. The average \$1.1 billion generated by the Project in additional exports annually (over a 24-year period) could more than double the value of existing exports (\$937.0 million in 2015). The impact on the balance of trade would also be noteworthy with the Project potentially reducing, on average, the annual territorial deficit by 63.0%.

While the above are longer-term economic projections, recent socio-economic monitoring reports (e.g. Aglu and Stratos 2021) and Company data (e.g. Impact Economics 2021) reveal the actual benefits provided by the Project to date. For example, Baffinland has:

- Invested an estimated total of USD \$3.5 billion in Project development.
- Acted as a major contributor to the economies of Nunavut and Canada. In 2019 alone, the Project contributed \$724 million to Nunavut’s GDP, representing 23% of the territorial economy.¹²
- Provided over \$80 million in wages to Inuit Project employees.
- Employed a high of 288 Inuit FTEs (in 2019, prior to the COVID-19 pandemic). In 2020, 250 Inuit FTEs were still employed.
- Reached over \$1.3 billion in contracts signed and awarded to Inuit Firms.
- Produced 495 graduates of pre-employment training programs.
- Provided over 150,000 hours of training to Inuit Project employees.
- Paid over \$65 million to QIA in accordance with the IIBA and Commercial Lease.
- Paid over \$53 million in taxes to the Government of Nunavut.

Many Project benefits have been facilitated through IIBA commitments on preferential Inuit employment and contracting, Inuit training and career development, and other community and economic initiatives. Likewise, substantial royalty payments have been made to QIA through the IIBA and to the GN through taxes. It is anticipated these royalty and tax payments would be curtailed during a temporary closure period, as would many of the other benefits noted above.

Baffinland also contributes to a range of community-focused programs and initiatives through the IIBA.¹³ Many of these would be discontinued during a temporary closure period. Example programs and initiatives include, but are not necessarily limited to:

- **Ilagiiktunut Fund** – Baffinland and QIA contribute jointly to this fund, which provides up to \$1.1 million/year for community wellness-focused projects in the North Baffin.

¹² Jimi Onalik, GN Deputy Minister of Economic Development and Transportation, highlighted the economic importance of the Project to the territory in statements to NIRB on Baffinland’s Phase 2 Proposal in April 2021 (i.e. Onalik 2021). In one instance, Onalik (2021: 2914) mentioned long-term economic planning for the territory had been put on hold while uncertainties over whether Phase 2 would be approved were addressed: “It represents a large opportunity, and in some ways -- and I want to be really clear that, you know, in some ways the deliberations taking place here shape – has put on hold some of the future planning for the Government of Nunavut when it comes to the economic development strategy.”

¹³ This list does not include new commitments and benefits found in the Inuit Certainty Agreement (ICA) that are contingent on approval of the Phase 2 Proposal.

- **Business Capacity and Start-Up Fund** – Provides up to \$275,000/year to Inuit Firms to assist with locating start-up capital and financing, management development, ongoing business management, financial management, contracts and procurement, and human resources management.
- **School Lunch Program** – Baffinland supports a School Lunch Program in the North Baffin communities, which is tailored to the needs of each community and its student body. The budget for this program is \$300,000 annually.
- **Baffinland Inuit Training Centre in Pond Inlet** – \$10 million commitment to the construction of a new training centre in Pond Inlet.
- **Harvesters Enabling Program (Pond Inlet)** – Baffinland contributes \$400,000/year (for 10 years) to support local travel and harvesting activities in Pond Inlet.
- **Community Counsellors Program** – Baffinland operates a Community Counsellors Program in the North Baffin communities. In partnership with QIA and the Ilisaqsivik Society in Clyde River, a by-Inuit-for-Inuit counselling support program has been developed. While priority is given to Inuit workers and their families, the program provides in-person counselling support for all individuals living in the point-of-hire communities. Counsellors for the program are trained professionals with expertise and experience addressing trauma and related health care issues and concerns. Baffinland has agreed to fund the program (for a minimum of 10 years) with a budget of \$300,000/year.
- **Marine Research Equipment Program** – Baffinland provides a marine research vessel to an organization identified in each North Baffin community. This program began in 2019 and will run for 15 years.
- **Wildlife Monitoring Program (Pond Inlet)** – Baffinland provides \$200,000/year (for 10 years) to develop a Wildlife Monitoring Program specific to the research interests of Pond Inlet.

In addition to programs and initiatives supported by Baffinland through the IIBA, the Company also contributes to stand-alone programs administered by its staff including:

- **Tasiuqtiit Working Group (Pond Inlet)** – Baffinland and the community of Pond Inlet (including the Mittimatalik Hunters and Trappers Organization) have established the Tasiuqtiit Working Group to assure programs are developed that positively impact the community. Funds for the Working Group are provided through direct disbursement to the community of Pond Inlet in the value of \$10,000 per additional ore carrier required to transport iron ore above the volume of 4.2 Mt per annum.
- **Investments in School-Based Initiatives** – Investments continue to be made in school-based initiatives. These include laptop donations to secondary school graduates, scholarships, and other donations.
- **Seasonal Country Food Exchange Program** – Baffinland offers to transport country food between North Baffin communities on a seasonal basis, free of charge, using its contracted aircraft.
- **Community Food Bank Donations** – Baffinland supports food banks in each North Baffin community. Funds are used by food banks to provide Christmas food hampers to families in

need over the holiday season. In addition to the Christmas Hamper Program, the Company has individually donated to local food banks.

- **Sponsorship and Donation Program** – Baffinland contributes to community programs and initiatives every year. This includes sponsorships and donations for youth, Elders, women, and community-focused organizations. While there is no permanent annual fixed budget for this program, approximately \$1.1 million has been spent by Baffinland on community programs and initiatives since 2016.

Table 3-1 identifies a limited number of beneficial effects stemming from temporary Project closure. These relate to the increased availability of experienced workers for other regional employment opportunities, reductions in family stresses associated with fly-in/fly-out employment rotations, and reductions in Project disturbances on harvested wildlife species, among others.¹⁴

As this section demonstrates, the socio-economic effects of temporary closure are likely to be varied and complex. However, the adverse economic implications for North Baffin communities could be considerable. The extent of these effects will ultimately depend on the length of any temporary closure period that ensues. Fortunately, many of these effects are reversible if temporary closure ceases and Project operations re-commence in a timely manner.

Beneficial economic effects experienced by North Baffin communities will also be enhanced the longer the Project continues to operate (and avoids closure), so that increasing skills, experience, wealth, and economic self-sufficiency are gained by Inuit. These benefits are associated with important social determinants of Inuit health and wellbeing (e.g. Government of Canada 2020, ITK 2014, WHO 2014). The World Health Organization (WHO 2011: 45) defines social determinants of health as “the conditions in which people are born, grow, live, work, and age, including the health system. These circumstances are shaped by the distribution of money, power, and resources at global, national, and local levels, which are themselves influenced by policy choices. The social determinants of health are mostly responsible for health inequities. This term is also shorthand for the wider social, political, economic, environmental, and cultural forces that determine people’s living conditions.”

Inuit Tapiriit Kanatami (ITK 2014) have identified eleven key social determinants of Inuit health, specifically:

- Livelihoods
- Income distribution
- Housing
- Education
- Food security
- Quality of early childhood development
- Culture and language
- Personal safety and security
- Availability of health services
- Mental wellness

¹⁴ Project Certificate Term and Condition No. 149 also asks Baffinland to consider effects related to “the potential drop in employment between the construction and operations phases of the Project.” As effects in this area are not a primary consideration for temporary closure planning, they are given only minimal attention here and the reader is directed instead to the effects assessments presented in Baffinland’s FEIS and FEIS addendum submissions (e.g. Baffinland 2012, 2013, 2018). These submissions have noted that employee demobilisation will take place carefully to ensure employees are fully aware of their period of employment, given adequate notice at the close of their employment, and provided with opportunities to apply to positions in the operations team. Given this and the fact that the level of employment demanded during the Project’s operations phase is expected to continue exceeding the North Baffin’s supply capacity, no losses of Inuit jobs are anticipated during transitions between the construction and operations phases of the Project.

- Environment

The operating Project beneficially contributes to several of these social determinants. This occurs through direct means (e.g. wage employment, education, training, and business opportunities) and more indirect avenues (e.g. payments of royalties and taxes to government and Inuit organizations, Company support for various community programs and initiatives). Baffinland is also a provider of certain health services (e.g. through on-site medical clinics, employee support programs and personnel) and a supporter of important community health and wellness initiatives (e.g. Community Counsellors Program, Ilagiiktunut Fund, school lunch programs, daycare funding). Any premature loss or suspension of these benefits is anticipated to have adverse implications for Inuit health and wellbeing. Conversely, a full, uninterrupted Project lifespan would help maximize these benefits.

Table 3-1: Potential Socio-Economic Effects Resulting from Temporary Project Closure

VSEC	Key Indicator(s)	Summary of Temporary Closure Effects
Population Demographics	Demographic Stability	<ul style="list-style-type: none"> Any Project-induced out-migration of Inuit residents from North Baffin communities is expected to temporarily stop, as Project employment and wage opportunities stall, and the ability to work from southern points-of-hire ceases. However, longer-term closure scenarios could prompt some individuals to seek work outside their communities if suitable local alternatives do not exist. Any Project-induced in-migration of non-Inuit Project employees to North Baffin communities would also temporarily stop.
Education and Training	Life Skills Education and Skills	<ul style="list-style-type: none"> Life skills of individuals gained through the Project (e.g. obtained through access to industrial work supported by pre-employment preparation and on-the-job training) are expected to remain and be applicable for everyday decision-making, as well as for future employment opportunities. Project-related opportunities to gain training and skills would temporarily cease, as would contributions to local educational and training initiatives (e.g. investments in school-based initiatives, School Lunch Program, Baffinland Inuit Training Centre in Pond Inlet). Overall changes to local interest in education and training programs are not anticipated. Temporary closure of the Project holds the potential for Project employment to resume. However, longer-term closure could result in potential changes in the demand for education and training to occur, as Project employees could seek alternative forms of education and training to obtain other types of employment. Where other types of employment are not readily available, the perceived value of education and training to North Baffin residents may diminish, as visible linkages to obtaining local employment are weakened.
Livelihood and Employment	Wage Employment Job Progression and Career Advancement	<ul style="list-style-type: none"> Direct Project employment would be stalled as operational activities cease. Only a minimal number of employees are expected to remain on-site to maintain the Project site, facilities, and equipment. Indirect employment opportunities generated by the Project would also stall, although a lag period may occur. Employment loss associated with a temporary closure of the Project would be limited in duration, at which time the Project would either begin operations again or be transitioned to longer-term or permanent closure. Direct Project employees would be available to work with other employers and in other sectors. Skills and experience developed within the labour force from Project employment may result in a greater availability of skilled or semi-skilled employees in the region during temporary closure. Job progression and career advancement opportunities at the Project would be halted, although individuals could return to their jobs and continue advancing in their careers should Project operations recommence.
Economic Development and Self-Reliance	Land People Community Economy Territorial Economy	<ul style="list-style-type: none"> Many direct effects on economic development will be stalled as operational activities are discontinued (e.g. direct Project contributions to GDP and government tax revenues). Indirect and induced benefits would not immediately be stalled, as earlier direct expenditures and income continue to circulate through the economy, but are expected to slow over time. As noted in the FEIS and FEIS addendum documents, the assessment of this VSEC consisted largely of an integrated assessment of other VEC/VSEC assessment conclusions. As such, the reader is directed to those assessments for additional information.
Human Health and Well-Being	Well-Being of Children Substance Abuse Community Social Stability	<ul style="list-style-type: none"> Family structure and function may undergo further change as employees return home and transition to other day-to-day activities or employment. Having an individual who was absent for work part of the time back in the home full-time may require adjustment for families. Some adverse effects on individual, family, and community well-being could result from this adjustment period and the stresses it could induce. Experience and skills gained during Project operations may ease the adjustment. The loss of employment may have different outcomes related to individual and family spending, which are partly dependent on individual and family decisions. Employment income would be reduced to income from employment insurance. In response, individuals and families may limit their spending. This could have adverse effects on household purchasing and food security, and create increased reliance on sharing networks. Individuals may also return to public housing when employment income is lost, creating additional strains on the public housing system and exacerbating crowding issues. Potential transportation of illicit substances through Project sites is expected to effectively halt. Affordability of substances such as alcohol and drugs by workers and their families is anticipated to substantially decrease, as Project wage-earning opportunities stall. However, stresses associated with temporary closure could manifest themselves differently in previously employed individuals, with some partaking in a greater use of substances or engaging in socially undesirable activities (e.g. crime). Adverse effects on the functioning of community activities and institutions arising from the absence of Project workers will halt. Previously employed individuals may be available to participate in community activities more fully.

VSEC	Key Indicator(s)	Summary of Temporary Closure Effects
		<ul style="list-style-type: none"> Project contributions to community health and well-being initiatives would temporarily cease (e.g. Ilagiiktunut Fund, School Lunch Program, Tasiuqtiit Working Group, community food bank donations, Community Counsellors Program).
Community Infrastructure and Public Services	Hamlet Staff Recruitment and Retention	<ul style="list-style-type: none"> Increased labour force capacity developed through Project employment opportunities is retained; however, employment and contracting activities are temporarily discontinued. As new employment will not be generated during temporary closure, further capacity increases in the workforce are not expected. Hamlets, local businesses, and other regional organizations have a more experienced labour pool to draw from as a result of the operating Project (e.g. through normal employee turnover). During a temporary closure phase the available local labour pool will increase further as a result of employee layoffs.
Contracting and Business Opportunities	Business Opportunities	<ul style="list-style-type: none"> The potential for local market expansions, and changes to the growth and diversity of Inuit and local businesses as a result of the Project are expected to temporarily diminish, as many Project expenditures are discontinued. Further, temporary closure may cause individuals and businesses to restrict their spending, indirectly affecting other local businesses who benefited from increased economic demand during operations. Should the Project experience longer-term closure, additional contract and sub-contract work would be discontinued and the demand for goods and services related to Project expenditures, employment incomes, and procurement would be further reduced. Community benefits indirectly received through Project contracting opportunities would temporarily cease. These include patronage payments made to community Arctic Co-op members resulting from profits earned through Arctic Co-op contracts with Baffinland. Experience, skills, and capacity developed within the business community as a result of Project opportunities could result in new business opportunities being easier to identify and obtain for some organizations. However, businesses that relied heavily on Project opportunities for their economic success may experience viability challenges. Project contributions to local business development initiatives would temporarily cease (e.g. Business Capacity and Start-Up Fund).
Culture, Resources, and Land Use	Archaeological Sites Harvesting Travel and Camps	<ul style="list-style-type: none"> Effects on archaeological sites are anticipated to largely continue, as all Project facilities would remain intact and all previous ground disturbances would continue to exist. Chance find discoveries, accidental events, and the potential for unauthorized removal of artifacts by Project staff would cease, however. Some Project effects on harvesting, travel, and camps are anticipated to continue. The number of employees on-site will be substantially reduced and operational activities such as use of heavy equipment, blasting, crushing, and various transportation activities will be discontinued; however, all facilities remain intact. Decreases in access to land and resources experienced during operations would continue as all facilities would remain and continue to act as impediments to land access. Loss of Project-related employment income could make participation in harvesting increasingly difficult for some individuals. Where harvesting is curtailed, a loss of access to nutritious country food could occur and cause greater reliance on store-bought foods or sharing networks. However, some individuals may have more time available to pursue harvesting and other traditional/cultural practices. Disturbances related to noise, vibration, and air quality would be reduced as Project-related mining and ore transportation activities temporarily cease. Changes to the experience of the natural environment will likely remain but would be limited to primarily a visual effect as equipment and facilities will remain. Likewise, some changes to the distribution and abundance of wildlife resources are expected to continue, as Project-related equipment, facilities, and infrastructure will remain. Other Project disturbances to wildlife resources may be reduced as a result of decreased operational and transportation activities. Project contributions to local harvesting initiatives would temporarily cease (e.g. Harvesters Enabling Program in Pond Inlet, Seasonal Country Food Exchange Program). Project contributions to community cultural programs would also temporarily cease (e.g. Ilagiiktunut Fund).
Benefits, Royalty, and Taxation	Territorial Government Own-Source Revenues	<ul style="list-style-type: none"> Payments of taxes and royalties to government, as well as contributions to QIA made under the IIBA, will largely cease. Decreased government and QIA revenues could impact service delivery and/or infrastructure construction and upkeep. Government social spending (e.g. social assistance expenditures) is likely to increase in relation to the number of unemployed individuals.
Governance and Leadership	No key indicators identified in the FEIS/FEIS Addendums (VSEC was a Subject of Note)	<ul style="list-style-type: none"> Project contributions to the region's strategic economic and development priorities will temporarily cease, and longer-term territorial government economic plans and initiatives may also be affected. The governance regime associated with the IIBA will also experience temporary contractions. Baffinland will continue contributing to socio-economic and other relevant monitoring programs, but likely in a reduced capacity.

3.3.3 Economic Effects of an Employee Layoff and Available Government Support

One of the most immediate and locally evident effects of temporary Project closure will be the loss of employment and wage-earning opportunities for North Baffin residents. In 2020, total wages paid to Inuit equalled \$20.9 million, and in 2019 (i.e. pre COVID-19) total wages paid to Inuit equalled \$20.3 million. When assessed using an FTE basis, the Project had 250 Inuit FTEs in 2020 with an average wage per Baffinland and contractor Inuit FTE of \$83,564 (Aglu and Stratos 2021). These wages are notable and reflect mining industry averages that are higher than Canadian wage averages.¹⁵ Leading up to 2020, the Project had also been experiencing multi-year growth in Inuit employment (reaching a high of 288 FTEs in 2019) and expected to achieve further gains. Unanticipated contractor demobilization that occurred in Q4 2019 and the onset of COVID-19 in March 2020 restricted subsequent progress in this area.¹⁶

Additional information on the potential economic effects of an employee layoff and on government support that might be available to unemployed workers is provided below. This information has been included to accompany the conclusions previously presented, to address stakeholder concerns expressed about unanticipated layoffs, and to address Project Certificate Term and Condition No. 149 more comprehensively.

Several assumptions have been made in this analysis, including that a temporary layoff would be up to 45 days long (a permanent layoff, conversely, would exceed 45 days in length)¹⁷ and that alternative employment is not obtained elsewhere by laid off employees. It has also been assumed that all employees would be eligible for Employment Insurance (EI). EI eligibility requirements are described by the Government of Canada (2021a), but include having worked the required number of insurable employment hours in the last year (or since the start of a previous EI claim, whichever is shorter); in Nunavut (including Iqaluit) this is 420 hours (Government of Canada 2021b, c). Likewise, it has been assumed all employees would be eligible to receive the maximum EI benefit. Available EI benefit amounts are described by the Government of Canada (2021d), but at the time of writing, the maximum available amount was \$595.00/week. Finally, it has been assumed all employees would have the same weekly employment earnings, which have been projected based on average 2020 Inuit FTE wages of \$83,564 identified in Aglu and Stratos (2021). This analysis also focuses only on direct employment; the economic effects of temporary closure on indirect/induced employment and businesses are more difficult to quantify and are described qualitatively in Table 3-1 instead.

Table 3-2 compares employment earnings for an example Baffinland Inuit employee against the maximum available EI benefit for both weekly and 45-day periods. The potential loss in income has

¹⁵ The average Canadian hourly wage for all industries in 2020 was \$29.51, whereas employees working in forestry, fishing, mining, quarrying, and oil and gas industries made an average of \$41.61 per hour in that year (Statistics Canada 2021). The mining industry, specifically, pays the highest industrial wage in Canada (MAC 2021).

¹⁶ Following the advice of the GN, Baffinland made the decision to return Nunavummiut employees to their home communities with full compensation in mid-March 2020. This decision was made to help protect Nunavummiut employees and their communities from COVID-19. In April 2020, these employees were put on standby pay rates with full group benefits (standby pay is full salary minus site premiums and travel allowance). By June 2021, Nunavut workers had still not returned to work. Baffinland continues to work with the GN and the Department of Health on risk-based initiatives to have Nunavummiut employees return to work as soon as possible. Efforts by contractors to increase Inuit employment at the Project have also been constrained by travel restrictions imposed by the GN in response to COVID-19. Baffinland and some of its contractors have been able to recruit Inuit residing outside of Nunavut to work at the Project but these workers were fewer than the number of Inuit workers normally employed from North Baffin communities.

¹⁷ Under the Labour Standards Act (1988) any layoff exceeding 45 days is considered a permanent layoff.

been calculated at approximately \$1,000.00 for a week-long temporary layoff period and approximately \$6,500.00 for a 45-day temporary layoff period.

Table 3-2: Comparison of Employment Earnings and EI Benefits, for an Example Baffinland Inuit Employee

	Example Employment Earnings	Maximum Available Employment Insurance (EI) Benefits ¹⁸	Difference Between Employment Earnings and EI Benefits
Weekly	\$1,607.00	\$595.00	-\$1,012.00
45 Days	\$10,330.71	\$3,825.00	-\$6,505.71

Table 3-3 compares the difference between employment earnings and maximum available EI benefits, by example Inuit workforce numbers for both weekly and 45-day periods. The potential loss in income for 200 Inuit employees has been calculated at approximately \$1.3 million over a 45-day temporary layoff period, while the potential loss in income for 400 Inuit employees has been calculated at approximately \$2.6 million over the same period.

Table 3-3: Difference Between Employment Earnings and EI Benefits, for Example Inuit Workforce Numbers

	200 Employees	250 Employees	300 Employees	350 Employees	400 Employees
Weekly	-\$202,400.00	-\$253,000.00	-\$303,600.00	-\$354,200.00	-\$404,800.00
45 Days	-\$1,301,142.00	-\$1,626,428.00	-\$1,951,713.00	-\$2,276,999.00	-\$2,602,284.00

In accordance with the Labour Standards Act (1988), should Baffinland decide to temporarily layoff an employee, Baffinland would a) give the employee written notice of temporary layoff, and b) indicate in the notice of temporary layoff the expected date on which Baffinland will request the employee to return to work. Baffinland acknowledges the potential for a layoff to last longer than 45 days. Under the Labour Standards Act (1988), however, any layoff exceeding 45 days is considered a permanent layoff. In the event of a permanent layoff, other pay and/or benefits may be available for individuals to collect. For example, Baffinland is required to provide appropriate termination notice or commensurate termination pay (e.g. wages) to employees, calculated in accordance with instructions in the Labour Standards Act (1988). Additional EI benefits may also be available and are paid by the Government of Canada. The maximum length of time regular EI benefits can be provided in Nunavut (Iqaluit excluded) is 45 weeks (Government of Canada 2021d).

In addition, the Nunavut Income Assistance Program (Government of Nunavut 2021a) is an available program “intended to help Nunavut families and individuals meet their basic needs when for various reasons, including disability, illness, low-income or periods of unemployment, when they are unable to provide for themselves.” However, the Nunavut Income Assistance Program is noted to be a program of last resort. The Government of Canada’s (2021e) ‘Benefits Finder’ is another resource available to help individuals determine if they are eligible for benefits from other federal or territorial government sources.

¹⁸ The Government of Canada (2021d) notes the basic rate for calculating EI benefits for most individuals is 55% of their average insurable weekly earnings. As of January 1, 2021, the maximum yearly insurable earnings amount is \$56,300.00, which is equal to an EI recipient receiving a maximum of \$595.00 per week.

Estimating the value of welfare incomes in Nunavut can help provide a broader understanding of the potential economic impact of temporary Project closure, particularly in the case of a longer-term closure, during which time some employees may receive social assistance. Table 3-4 shows weekly and annual social assistance values for a family of four (i.e. a couple with two children) in 2019 (Laidley and Aldridge 2020). The available data draws from welfare income values for families in Iqaluit and may differ from the welfare income for families in North Baffin communities. The estimated income from social assistance, federal and territorial child benefits, and GST/HST credits for a family of four was \$579.60 per week and \$30,139.00 per year.

Table 3-4: Weekly and Annual Welfare Incomes for a Family of Four in Iqaluit in 2019

	Basic Social Assistance	Federal Child Benefits	Territorial Child Benefits	GST/HST Credits	Total
Weekly	\$336.92	\$213.13	\$12.69	\$16.85	\$579.60
Yearly	\$17,520.00	\$11,083.00	\$660.00	\$876.00	\$30,139.00

Source: Laidley and Aldridge (2020)

Table 3-5 compares the difference between employment earnings for an example Baffinland Inuit employee against the welfare income for a family of four, for both weekly and yearly time periods. This comparison illustrates a scenario whereby Project closure extends beyond a 45-day period and a Baffinland employee supporting a family of four receives welfare during the longer-term closure. The welfare income estimates are drawn from available data for Iqaluit in 2019. A family of four receiving welfare would receive \$1,027 less per week and \$53,425.00 less per year than a Baffinland Inuit employee would earn in those same time periods.

Table 3-5: Comparison of Employment Earnings and Welfare Incomes, for an Example Baffinland Inuit Employee

	Example Employment Earnings	Welfare Income for a Family of Four in Iqaluit in 2019	Difference Between Employment Earnings and Welfare Income
Weekly	\$1,607.00	\$579.60	-\$1,027.40
Yearly	\$83,564.00	\$30,139.00	-\$53,425.00

Using the estimates shown above, Table 3-6 presents the difference between weekly and annual employment earnings and welfare incomes for several example Baffinland Inuit workforce numbers. These estimates are based on the assumption that each employee supports a family of four, and again, welfare incomes are drawn from available data for Iqaluit in 2019. The potential loss in annual income for 200 employees has been calculated at approximately \$10.7 million, while the potential loss in annual income for 400 employees has been calculated at approximately \$21.4 million.

Table 3-6: Difference Between Employment Earnings and Welfare Incomes, for Example Baffinland Inuit Workforce Numbers

	200 Employees	250 Employees	300 Employees	350 Employees	400 Employees
Weekly	-\$205,480.00	-\$256,850.00	-\$308,220.00	-\$359,590.00	-\$410,960.00
Yearly	-\$10,685,000.00	-\$13,356,250.00	-\$16,027,500.00	-\$18,698,750.00	-\$21,370,000.00

3.3.4 Summary

In accordance with Project Certificate Term and Condition No. 149, this section has considered how communities in the North Baffin region may be affected by temporary closure of the mine, with a focus on socio-economic effects. Baffinland has also presented information on the economic effects of an employee layoff and government support that is available.

It is evident the socio-economic effects of temporary closure would be varied and complex. However, the adverse economic implications for North Baffin communities could be considerable. The above information may be updated by Baffinland in the future to reflect any significant changes to the Project or socio-economic conditions in the region that may increase the potential effects of a temporary mine closure.

4. PLANNING FOR TEMPORARY CLOSURE

4.1 OVERVIEW

Risks for temporary mine closure and potential socio-economic effects that may occur were summarized in Sections 2 and 3 of this report. Proper planning is also necessary to effectively manage temporary closure scenarios, which is discussed in the following section.

Mine closure planning has historically focused on environmental and land reclamation/remediation concerns, with limited focus on socio-economic issues. However, addressing the socio-economic dimensions of closure is now recognized as an essential component of best practice mine closure planning, with community involvement an important part of the process. Closure planning must also be tailored to individual contexts and the literature suggests several areas for mitigation and management measures to focus on. Monosky and Keeling (2021: 1) reviewed mine closure plans from across northern Canada and found, “For mine closure to be successful in a northern context it must incorporate community expertise, emerge from the values and priorities of the Indigenous peoples whose lands mines are operating on, and account for a wider scope of social, economic, and cultural impacts.”

Bainton and Holcombe (2018) have highlighted the social aspects of mine closure that often need addressing: Workforce planning, housing, community normalisation, post-mining economies, infrastructure and services for resident populations, stakeholder engagement, heritage management, and agreements with local and Indigenous communities. Bainton and Holcombe (2018: 469) also note that permanent mine closure can create new opportunities for communities and the potential foundations for long-term development: “From a social perspective, optimised mine closure processes would enhance (rather than detract) from local capital – produced, natural, human, financial, social and cultural – to create the foundations for a more sustainable post-mining future. Repurposing infrastructure and mining landscapes, reskilling and redeploying labour, establishing alternative economic opportunities, strengthening local livelihoods and food security, and effectively addressing social and environmental legacy issues that may have emerged during operations are among the many possibilities of the mine closure process.”

While recommendations in the literature tend to focus on permanent mine closure, insights applicable to temporary closure are nevertheless evident. Some socio-economic planning strategies may also be similar for the two types of closure, although each ultimately requires a unique process. Permanent closure is typically an anticipated event that can be prepared for through years of advance planning. From a socio-economic perspective, this longer time horizon also permits the full range of a mine’s economic benefits to be experienced by local communities, and for more durable social and economic outcomes to be generated. Temporary closure, on the other hand, is typically an unanticipated or undesired event that may occur relatively suddenly in some instances. Planning options and opportunities for long-term benefits generation may not be as comprehensive in these scenarios.

With the above in mind, this section reviews the goal and associated objectives of Baffinland’s socio-economic plans for temporary closure, Project-specific mitigation and management measures that will be employed, other relevant programs and resources that are available, and adaptive management measures that will be used. These have been informed by operational experience, insights from the literature, and through community and stakeholder input where appropriate. Comprehensive socio-economic planning for permanent closure of the Project remains an important objective for Baffinland

and will continue to be developed in the future. As noted previously, this report focuses primarily on temporary closure considerations.

4.2 SOCIO-ECONOMIC GOAL AND OBJECTIVES OF TEMPORARY CLOSURE PLANNING

Baffinland's socio-economic goal in temporary closure planning is to mitigate unanticipated losses in Project economic benefits for local communities by addressing adverse effects through relevant employee, family, and community programs and support.¹⁹ Specific objectives that will assist Baffinland in achieving this goal include the following:

- Develop plans to address long-term Project and community sustainability considerations, while supporting readiness for Project re-commencement.
- Minimize potential socio-economic effects of temporary closure through effective mitigation and management measures.
- Provide adequate support to employees, families, and communities for the stresses associated with temporary closure transitions.
- Engage local communities and relevant stakeholders in planning for temporary closure, and incorporate community perspectives and goals, as well as Inuit Qaujimajatuqangit (IQ) where appropriate.
- Assign appropriate internal responsibilities and timelines for implementation of mitigation and management measures.
- Collaborate with external stakeholders on mitigation and management measures, where relevant.
- Monitor and evaluate progress towards achieving objectives over time.
- Practice adaptive management, to ensure the best possible outcomes emerge.

Additional details on how these objectives will be advanced are provided below. In some cases, further planning and actions will be undertaken by Baffinland in order to achieve these objectives. This document, similar to all Baffinland management plans, is a living document that will be adjusted and refined over time. Effective socio-economic closure planning remains a complex challenge. Baffinland plays an important role in leading this exercise, but must be supported by all relevant Nunavut stakeholders if desired outcomes are to be achieved.

4.3 COMMUNITY AND STAKEHOLDER PERSPECTIVES

Historic comments and concerns related to Project closure planning have been provided through Baffinland's community and stakeholder engagement program. Most of these pertained to Baffinland's plans for site reclamation and environmental remediation. Very few historic comments pertained to Baffinland's plans and mitigation for the socio-economic environment, although interest in securing long-term community benefits from the Project has been expressed on several occasions.

¹⁹ This can be contrasted against the goal of planning for the socio-economic dimensions of permanent closure, which would be to mitigate adverse effects associated with the anticipated end of local economic benefits, and to develop informed strategies for sustainable, post-closure benefits for communities.

Some comments on planning for the socio-economic dimensions of closure were provided through more recent engagement efforts. For example, comments on this topic were received during the Community Roundtable portion of the November 2021 NIRB Public Hearing for the Phase 2 Proposal:

Once mining is completed, we have to get our children ready and prepare them for jobs. [Pond Inlet Community Roundtable Participant – November 2021]

So there doesn't seem to be any plans, and if there's a closure or even if they're going to approve the Phase 2, is there any subsidy program or any compensation that we will be able to provide for our families? [Pond Inlet Community Roundtable Participant – November 2021]

Feedback on this topic was also provided during meetings held with North Baffin CEDOs and the Mary River SEMWG in October 2021. This included comments on the importance of transferable skills for Project employees seeking alternative employment, the need for ongoing community engagement related to temporary closure, and available government programming. A listing of pertinent federal programs was also provided by Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) following these meetings (see Table 4-2 in Section 4.5).

There were lots of job losses in Nanisivik when that closed. However, due to the skills people learned while at Nanisivik they were able to leave Arctic Bay and find good high paying jobs elsewhere including in Iqaluit and southern Canada. [CEDO Meeting Participant – October 2021]

I'm confident that everyone has learned some transferable skills at Mary River and that in a closure scenario they could find new employment outside the Project. [CEDO Meeting Participant – October 2021]

Sharing information with CEDOs will be important leading up to a temporary closure as those who lose jobs will be contacting CEDOs for funding and programming opportunities. [CEDO Meeting Participant – October 2021]

At this time, I can't speak on behalf of the [federal] government and ministry if any new programs would be offered in response to the temporary closure of the Project. However, there are several existing federal programs that exist to support Inuit. [Mary River SEMWG Meeting Participant – October 2021]

Regarding the delivery and the uptake of those programs [provided by the territorial government] within the communities – We are happy to offer our support on what the communities can access. [Mary River SEMWG Meeting Participant – October 2021]

4.4 PROJECT-SPECIFIC MITIGATION AND MANAGEMENT MEASURES

Baffinland has developed several mitigation and management measures to address socio-economic issues and enhance beneficial outcomes from the Project. Initial measures were developed through comprehensive, multi-year EA processes that incorporated substantial community and stakeholder input. Many of these commitments were formalized in various management plans, although relevant measures were also committed to through negotiation (and subsequent amendment) of an IIBA with

QIA. Mitigation and management measures drawn from the above sources that are applicable to temporary closure are summarized in Table 4-1.

Table 4-1 also includes several new mitigation measures related to temporary closure (these are differentiated in the table as 'new' rather than 'existing' measures). These can appropriately be viewed as additional tools in Baffinland's toolbox, which Baffinland can select from given the specific circumstances of the closure scenario they face, to help address adverse effects of closure. These tools are further intended to address stakeholder concerns expressed on the topic and/or to reflect suggestions identified in the literature. Baffinland will update its ICRP and other relevant monitoring and management plans to reflect the tools that may be implemented as presented in Table 4-1.

In addition to the measures cited in Table 4-1, Baffinland has other socio-economic obligations related to temporary closure. For example, NIRB Project Certificate No. 005 contains 41 socio-economic terms and conditions Baffinland must address in an ongoing manner. Many of these have requirements applicable to all Project phases, including temporary closure/care and maintenance phases. Other relevant programs and resources applicable to temporary closure, but not specific to the Project, are described in Section 4.5.

Table 4-1: Project-Specific Socio-Economic Mitigation and Management Measures Applicable to Temporary Closure

Topic	Mitigation/Management Measure	New or Existing Measure?	Description and Applicability to Temporary Closure
Employment and Training	Inuit Workforce Experience, Training, and Skills Development	Existing	<ul style="list-style-type: none"> Baffinland’s IIBA contains numerous commitments related to Inuit employment and training, and the Company has developed an <i>IIBA Implementation Guide</i> to help ensure success in this area. For example, Inuit are given preference over other employment applicants. Priority is given to Inuit from the North Baffin communities. Thereafter, priority is given to Inuit residents from other Baffin Region communities and then to all other Nunavut Agreement beneficiaries. The Company provides air transportation for Inuit employees from the Baffin Region to and from the Project at no cost to the employee (IIBA Article 7.5). Experience gained by North Baffin employees at the Project will be available for them to use with other employers following a layoff or when re-hired upon Project re-commencement. This may help some individuals better manage the transition associated with a temporary closure phase.
		Existing	<ul style="list-style-type: none"> Through training and education initiatives, Baffinland aims to maximize prospects for Inuit employment and retention in the Project workforce, assist Inuit in developing the practical skills and education qualifications that enable them to work effectively and advance in their employment, contribute to the human capital and well-being of the North Baffin region, and reduce barriers to employment throughout the life of the Project. Skills and qualifications earned by North Baffin employees at the Project will be available for them to use with other employers following a layoff or when re-hired upon Project re-commencement. This may help some individuals better manage the transition associated with a temporary closure phase.
	Alternative Employment Arrangements	New	<ul style="list-style-type: none"> Baffinland will explore opportunities for Work-Sharing. Work-Sharing is an adjustment program with Service Canada designed to help employers and employees avoid layoffs when there is a temporary reduction in the normal level of business activity that is beyond the control of the employer. This provides income support to employees eligible for EI benefits who work a temporarily reduced work week while their employer recovers. Employees on a Work-Sharing agreement agree to a reduced schedule of work and to share the available work over a specified period of time. This could allow some individuals to maintain employment and continue earning a wage at the Project instead of being laid off.
		New	<ul style="list-style-type: none"> Baffinland will explore opportunities to advance other projects or maintenance programs and for possible Inuit employment opportunities there or elsewhere. Training may be offered to Inuit employees to obtain the necessary skills to execute these activities. This could allow some individuals to maintain employment and continue earning a wage at the Project instead of being laid off.
		New	<ul style="list-style-type: none"> Baffinland will consider offering temporary unpaid leaves of absence for Inuit employees who wish to pursue other training or personal opportunities in the lead up to identified/potential temporary closure periods, and will prioritize their re-hiring upon Project re-commencement. This could facilitate the pursuit of new opportunities for some individuals and/or help them bridge the time gap between temporary closure and Project re-commencement.
		New	<ul style="list-style-type: none"> Baffinland will offer and promote early retirement options for those who are eligible in the event of temporary closure.
	Layoff Procedures	New	<ul style="list-style-type: none"> During periods when an increased risk of temporary Project closure and layoffs is evident, Baffinland will communicate this risk to Project employees and discuss the planning steps being undertaken. Baffinland will ensure appropriate staff are available to respond to employee inquiries and concerns on this topic. This will provide employees and their families with information to help prepare for a potential temporary closure phase.
		Existing	<ul style="list-style-type: none"> Per IIBA Article 7.1.3, in the instance of a temporary closure or reduction in the workforce, Inuit employees will be the last to be laid off from any specific job category, with the stipulation that individual employees’ skill levels must meet or exceed job requirements.
		Existing	<ul style="list-style-type: none"> Where it is necessary to conduct employee layoffs during the Project’s lifespan, Baffinland commits to ensuring that appropriate layoff notice periods are in line with relevant legislation including the Labour Standards Act (1988). This will provide employees and their families with advance notice to help prepare for a temporary closure phase. Additional employee layoff procedures are outlined in Sections 15.06 – 15.10 of the Project’s union Partnership Agreement (i.e. Baffinland and IUOE 2019).
		New	<ul style="list-style-type: none"> Appropriate layoff packages will be provided to employees that include information on the reasons for and expected duration of the layoff (if known), payment of any wages owing, available counselling and support resources, RRSPs and investment management, and available government employment benefit programs. This will provide employees and their families with resources to help prepare for a temporary closure phase.

Topic	Mitigation/Management Measure	New or Existing Measure?	Description and Applicability to Temporary Closure
	Workforce Transition Measures	New	<ul style="list-style-type: none"> Workforce transition measures will enhance employees' ability to secure suitable employment elsewhere during closure phases of the Project. These will maximize the transferability of workers' skills and experience, provide job search assistance to all workers seeking the service, and maximize the number of workers that find alternative suitable employment. Though geared primarily towards permanent closure of the Project, some workforce transition measures will also apply to temporary closure. For example, to maximize the transferability of workers' skills and experience, Baffinland's human resources staff will be available to employees to: 1) identify the skills they acquired and used throughout their Project employment by providing relevant descriptions of training and other employment achievements to workers from their personnel records; 2) match skills to alternative industries and positions; and 3) present skills and experience effectively in personal resumes and other job search materials to target those alternative industries and positions. These outputs will be developed during the operations phase of the Project (e.g. in the lead up to closure periods) by request and will be available to Baffinland employees who wish to utilize them. Relevant outputs would then be available for use by laid off employees in the event of closure when searching for alternative employment.
		Existing	<ul style="list-style-type: none"> Baffinland will engage the GN to establish a Labour Market Partnership and joint Labour Adjustment Committee to deal with workforce adjustment issues in the event of a Project-wide permanent layoff. For example, a needs assessment would be conducted to determine which labour adjustment issues should be addressed and to determine appropriate programming required both during and in preparation for layoff periods (e.g. job search assistance, resume preparation support, vocational counseling, personal support and counselling).
	Inuit Re-Hiring	New	<ul style="list-style-type: none"> Upon Project re-commencement, Baffinland will prioritize the re-hiring of laid off Inuit employees into the Project workforce. Previous Inuit employees will be provided preferential opportunities to be re-hired into their previous or similar positions. Additional employee recall procedures are outlined in Section 15.11 of the Project's union Partnership Agreement (i.e. Baffinland and IUOE 2019).
Business Development	Inuit Contracting Experience and Capacity Building	Existing	<ul style="list-style-type: none"> Baffinland's IIBA contains numerous commitments related to Inuit contracting and the Company has developed an <i>IIBA Implementation Guide</i> to help ensure success in this area. For example, the IIBA identifies preferential opportunities and procedures for Inuit Firms to contract with Baffinland. The experience and capacity of local businesses and entrepreneurs will be increased through their involvement with the Project in several direct (e.g. Project contracting) and indirect ways (e.g. capacity building programs and funding obtained through the Business Capacity and Start-Up Fund). Business experience and capacity developed because of Project opportunities will be available for Inuit Firms to use when bidding on other non-Project contracts or when Project re-commencement occurs. This may help some Inuit Firms better manage the transition associated with a temporary closure phase.
	Notice to Contractors	New	<ul style="list-style-type: none"> Baffinland will provide appropriate notice to Project contractors about: 1) periods when increased risk of temporary Project closure is evident; and 2) any decision to temporarily close the Project including the causes and probable duration of the closure (if known). Notice will be provided as early as practical. This will provide Project contractors with advance notice to help prepare for a temporary closure phase.
	Alternative Opportunities	New	<ul style="list-style-type: none"> Baffinland will meet with Inuit contractors to discuss impacts of temporary closure related to contracts. Opportunities for new or modified contracts specific to temporary closure will also be discussed, if relevant. This could allow some businesses to maintain contract opportunities at the Project during temporary closure periods.
Health and Well-Being	Employee and Family Assistance Program (EFAP)	Existing	<ul style="list-style-type: none"> Baffinland's benefit plan includes an EFAP, which offers all permanent employees and their dependents professional short-term counselling on an as-needed basis. The EFAP is a free and confidential program which offers counselling and support related to a wide variety of health issues, such as depression, addictions, family, and work-life balance. The EFAP provides both telephone and online services. Telephone services are offered in both English and Inuktitut. This program will serve as a resource for employees and families needing advice and/or facing stresses related to a temporary closure announcement.
		New	<ul style="list-style-type: none"> Baffinland will ensure the continued availability of the EFAP for at least one year following initiation of a temporary closure period. This program will serve as a resource for laid off employees and their families who need ongoing advice or who are facing ongoing stress related to temporary closure.
	Financial Management Training	Existing	<ul style="list-style-type: none"> Baffinland offers Financial Management Training to employees. Per IIBA Article 11.9, Baffinland will also provide Inuit employees with advice on personal financial management, when requested by an employee. Information on household budgeting, banking and financial services, and other available resources can be provided. This program will serve as a resource for employees and families needing financial advice related to temporary closure.

Topic	Mitigation/Management Measure	New or Existing Measure?	Description and Applicability to Temporary Closure
		New	<ul style="list-style-type: none"> Where appropriate, Financial Management Training will discuss the topics of permanent and/or temporary closure, and resources available for employees to help manage transitions associated with these periods.
	Community Counsellors Program	Existing	<ul style="list-style-type: none"> Per IIBA Article 11.7, Baffinland operates a Community Counsellors Program in the North Baffin communities. In partnership with QIA and the Ilisaqsivik Society in Clyde River, a by-Inuit-for-Inuit counselling support program has been developed. While priority is given to Inuit workers and their families, the program provides in-person counselling support for all individuals living in the North Baffin communities. Counsellors for the program are trained professionals with expertise and experience addressing trauma and related health care issues and concerns. This program will serve as a resource for employees, families, and community members facing stresses related to a temporary closure announcement.
		New	<ul style="list-style-type: none"> Baffinland will provide time-limited, transitional funding for the Community Counsellors Program following the initiation of a temporary closure period. This funding will allow for services currently being accessed by employees, families, and community members to be appropriately wound-down and for alternate services to be recommended, where appropriate.
	Engagement of GN and Royal Canadian Mounted Police (RCMP)	Existing	<ul style="list-style-type: none"> Consistent with Project Certificate Term and Condition No. 161, Baffinland will engage the GN and RCMP in the event of temporary closure, to ensure the territorial government and its policing service are adequately prepared to handle any Project-related increases to the need for service and associated impacts.
Land Use and Harvesting	Site Access	Existing	<ul style="list-style-type: none"> Inuit non-employees will continue to be allowed access to Project sites to participate in harvesting activities during temporary closure periods (subject to certain restrictions).
		New	<ul style="list-style-type: none"> Baffinland will evaluate the feasibility of continuing to provide land users with fuel, food, and shelter at designated Project sites if requested during temporary closure periods (subject to certain circumstances and restrictions).
		Existing	<ul style="list-style-type: none"> Per the ICRP, Baffinland will engage communities and land users to help assess if additional access restrictions are required during temporary closure. This will focus on effective language for signage, and identification of priority locations for barriers to deter and protect land users and wildlife.
	Communication of Public Safety Protocols	New	<ul style="list-style-type: none"> Communication of public safety protocols related to site access will continue within North Baffin communities during temporary closure periods. While in-person community visits by Baffinland staff will be significantly reduced during temporary closure, important updates to existing public safety protocols will be disseminated at minimum through email/physical mail to key community organizations (e.g. HTOs, Hamlets), or using remote engagement tools (e.g. radio shows, social media).
	Environmental Protection	Existing	<ul style="list-style-type: none"> Baffinland acknowledges the importance of a healthy environment to Inuit culture and livelihoods. Per the ICRP, Project infrastructure will be kept secure by routine maintenance and inspections to eliminate any hazard to public health and safety or material erosion to the terrestrial or aquatic receiving environments at concentrations that are harmful. Security personnel will carry out routine inspections of security, safety, and environmental measures and maintain a record of these inspections. During temporary closure periods, all terms and conditions of Baffinland's Type 'A' Water Licence (2AM-MYR-1325) will remain in force, unless an amendment is requested. A detailed 'Long-Term Care and Maintenance Plan' would also be submitted to the Nunavut Water Board and the land-owner at least 60 days prior to entering any long-term mine closure period. Additional environmental protection measures are detailed in the ICRP.
Notice and Contributions to QIA	Notice to QIA	Existing	<ul style="list-style-type: none"> Per IIBA Article 24.2.2, Baffinland will give QIA notice in writing within five business days of its decision to suspend or interrupt the Project and the causes and probable duration of the suspension or interruption. This will provide QIA with advance notice to help prepare for a temporary closure phase.
	Payments to QIA	Existing	<ul style="list-style-type: none"> Per IIBA Article 5.32, if Baffinland gives a notice of Project suspension, either before or after the commencement of commercial production, the Company shall pay QIA Extension Payments (\$1.25 million/quarter) until either the Company gives a notice of Project termination or the Company issues a press release stating that it is resuming development, construction, or operation of the Project.
	Contributions to QIA Legacy Fund/Benefits Fund	Existing	<ul style="list-style-type: none"> QIA has established a Legacy Fund and a Benefits Fund that are designed to provide long-term benefits to residents of the Qikiqtaaluk Region. The Project has made, and will continue to make, substantial contributions to these funds through its operations over time. For example, indirect contributions to these funds are made through IIBA payments, royalties, and fees provided to QIA through mineral development activities at Mary River. These funds may support various community benefits and programs administered directly by QIA that could be offered in the event of temporary Project closure.

Topic	Mitigation/Management Measure	New or Existing Measure?	Description and Applicability to Temporary Closure
Community and Stakeholder Engagement	Notice to Communities	New	<ul style="list-style-type: none"> Baffinland will provide appropriate notice to North Baffin communities about: 1) periods when increased risk of temporary Project closure is evident; and 2) any decision to temporarily close the Project including the causes and probable duration of the closure (if known). Notice will be provided as early as practical. This will provide communities with advance notice to help prepare for a temporary closure phase.
	Community and Stakeholder Engagement Plan	Existing	<ul style="list-style-type: none"> Baffinland's (2019b) <i>Draft Community and Stakeholder Engagement Plan</i> establishes the approach, strategy, and means by which Baffinland communicates with Project stakeholders and communities. It has several objectives, including the provision of up-to-date information about the Project to the public. It also describes engagement methods that may be used by Baffinland to engage Inuit on opportunities associated with the Project and to solicit feedback on relevant issues and concerns (e.g. public and stakeholder meetings, radio announcements, internet, newsletters). The Plan details efforts Baffinland will make to communicate and engage with residents, communities, and stakeholders throughout the life of the Project. Temporary closure matters can be discussed through these forums.
	Community and Stakeholder Engagement Plan Socio-Economic Monitoring Plan	New	<ul style="list-style-type: none"> Baffinland will provide Project updates to all employees, communities, and the public regarding any notable changes to Project activities, including those related to temporary closure and Project re-commencement. Communication may take place in-person to employees and via information postings, through community radio broadcasts, Project website and social media platforms, public and stakeholder meetings, bulletins or newsletters, and/or other Project materials. Community engagement activities during a temporary closure phase of the Project will focus on: <ul style="list-style-type: none"> Providing communities with temporary closure and/or Project re-commencement updates. Identifying community issues and concerns regarding temporary closure. Updating communities on the results of temporary closure-focused monitoring and mitigation programs, and soliciting feedback. Community engagement activities are anticipated to be less intensive during a temporary closure phase compared to Project construction and operational phases. This is because all production activities will be halted, only minimal staff will be employed, and resources available for community engagement and other activities will be significantly reduced.
		Existing	<p>Baffinland's (2019c) <i>Draft Socio-Economic Monitoring Plan</i> describes the socio-economic monitoring program Baffinland will follow in the development and operation of the Project. The monitoring program will be used as a means to track the accuracy of impact predictions and compliance with the Project Certificate. It will also guide implementation and, when necessary, the modification of various mitigation and adaptive management measures. The temporal extent of the monitoring program includes Project construction, operation, and closure phases (as long as there is a reasonable expectation of Project-related impacts to the socio-economic environment). Regular and systematic collection of data will take place annually. Analysis and reporting will be done on an annual basis or as required by NIRB, to ensure comprehensive Project monitoring continues to occur.</p>
Socio-Economic Monitoring	Mary River Socio-Economic Monitoring Working Group (SEMWG) and Qikiqtaaluk Socio-Economic Monitoring Committee (QSEMC)	Existing	<ul style="list-style-type: none"> The Mary River SEMWG aims to support the QSEMC in its regional monitoring initiatives, and to support the Project's socio-economic monitoring program. The SEMWG will identify and discuss areas of mutual interest to the parties and socio-economic monitoring priorities of the QSEMC related to the Project. Per the SEMWG's Terms of Reference, in the event of premature (temporary or final) closure of the Project, Baffinland will consult with the SEMWG and QSEMC before submitting any required Project-specific socio-economic management/closure plans. The SEMWG will meet for as long as the Project remains in either its construction, operation, or closure phases.
	Mary River Socio-Economic Monitoring Working Group (SEMWG) and Qikiqtaaluk Socio-Economic Monitoring Committee (QSEMC)	New	<ul style="list-style-type: none"> The SEMWG will be engaged to discuss whether modifications to the socio-economic monitoring program are required during temporary closure (e.g. do the scope of the monitoring program or indicators being monitored require any changes?). This will ensure the monitoring program remains relevant to the current Project phase.

4.5 OTHER RELEVANT PROGRAMS AND RESOURCES

Additional programs and resources (i.e. not specific to the Project) exist at various levels and may assist people and businesses during a temporary closure period. As noted previously, EI and other benefit programs (e.g. Government of Canada 2021a, 2021e; Government of Nunavut 2021a) are available to support unemployed workers who meet eligibility criteria. A Labour Market Partnership program also exists under the Canada-Nunavut Agreement of Labour Market Development (Government of Canada and Government of Nunavut 2000). This program supports employers, employee or employer associations, community groups and communities in developing and implementing strategies for dealing with labour force adjustments and meeting human resource requirements. Activities that may be supported under this program include the conduct of sector and occupational studies, the work of employer/employee adjustment committees formed to deal with workforce adjustment situations, and activities to help industries develop the tools they require to address current skills adjustment problems.

A listing of various federal programs applicable to temporary closure planning was provided by CIRNAC following Baffinland's engagement with them through the Mary River SEMWG in October 2021 (Table 4-2). Some of these programs may assist employees and contractors in mitigating adverse impacts if they find themselves out of work should the Project enter temporary closure; other programs are intended to provide funding that would help facilitate the establishment or growth of Indigenous businesses.

The Government of Nunavut also has a Small Business Support Program (Government of Nunavut 2021b), which includes funds that can be applied for and used to support the development of new and existing businesses. These include the Small Business Opportunities Fund and the Entrepreneur Development Fund. Both funds may be available to local individuals and businesses in the event of temporary closure (e.g. to start a new business or adapt an existing business). Community Economic Development Officers (EDOs) also provide important services to local businesses at the hamlet level. EDOs assist in the development of business proposals and plans; referrals to business management, accounting, and financial services; and general assistance in accessing necessary licensing, permits, training programs, and funding. EDOs may be another resource available to local individuals and businesses in the event of temporary closure.

In addition, several third-party resources are available to assist Baffinland and other stakeholders during workforce and community transitions associated with temporary closure. The Mining Industry Human Resources Council (MIHR) has developed a set of resources to assist employers in times of transition, including mine closure, layoffs, and downsizing. MIHR's *Mining Workforce Transition Kit* (MIHR 2020) includes five modules to help support transitioning workers and those overseeing the transition process. These are entitled 'Decision Makers', 'Transitioning Workers', 'The Transition Committee', 'The Action Centre Team', and 'Transition Resources'.

More generally, the International Council on Mining and Metals (ICMM 2019) has developed a toolkit entitled *Integrated Mine Closure: Good Practice Guide* that describes tools to consider when addressing the multiple dimensions (e.g. social, economic, environmental) of mine closure planning. It describes the participants in effective closure planning, frameworks for conceptual and detailed closure plans, decommissioning and post-closure planning considerations, challenges that may be faced, and specific tools that can be employed. The Centre for Social Responsibility in Mining (i.e. Owen and Kemp 2018) has also prepared a document specifically on the social dimensions of mine closure. It describes foundational strategies for the social optimization of mine closure, barriers to optimizing the social dimensions of mine closure, social specialist domains related to mine closure, and other topics. While

geared primarily towards permanent closure, these resources also contain a number of insights applicable to temporary closure.

The above-noted programs and resources may be available to support people, businesses, and communities transitioning through a temporary (or permanent) mine closure phase. However, this summary is not exhaustive and additional resources may be available from other organizations.

Table 4-2: Listing of Federal Programs Available to Employees, Contractors, and Businesses Affected by Temporary Closure

Program	Description	Website	Federal Organization
Employment Insurance (EI)	EI provides temporary income support to people who have become unemployed through no fault of their own and are actively looking for work, as well as people who are not working due to special circumstances, such as illness, becoming a parent, or caring for a sick relative.	https://www.canada.ca/en/services/benefits/ei.html	Service Canada
My Service Canada Account (MSCA)	MSCA is a secure online portal. It allows individuals to apply, view, and update their information for EI, Canada Pension Plan (CPP), Canada Pension Plan disability, and Old Age Security (OAS).	https://www.canada.ca/en/employment-social-development/services/my-account.html	Service Canada
eService Canada Service Request Form	Assistance with accessing Service Canada programs and services, EI, CPP, OAS, Social Insurance Number (SIN), passport services, and Veterans Affairs services. Individuals can complete an online request form and a representative will contact them by telephone within two business days. If an individual does not have access to the internet and requires assistance accessing services, they can contact 1-877-631-2657.	https://eservices.canada.ca/en/service/	Service Canada
Benefits Finder	A tool that can help individuals find benefits and services they may be eligible to receive. It asks a few questions and uses an individual's answers to search for results. It does not collect or track information. The more questions that are answered, the more customized and accurate the results will be.	https://benefitsfinder.services.gc.ca/hm	Service Canada
Apprenticeship Grants	The Government of Canada provides a range of supports to help apprentices complete their training. These include apprenticeship grants, loans, tax credits, and EI benefits during in-school training.	https://www.canada.ca/en/employment-social-development/services/apprentices.html	Service Canada
Indigenous Skills and Employment Training (ISET)	Employment and Social Development Canada provides funding to Inuit organizations in Nunavut through the ISET program. Some of the training available provides assistance/financial support while individuals are attending classes. Kakivak Association is the ISET agreement partner for the Qikiqtaaluk Region and delivers the funding. Kakivak's Training and Employment Department can be reached by phone: 867-979-0911 or 1-800-561-0911, or email: info@kakivak.ca .	https://www.canada.ca/en/employment-social-development/programs/indigenous-skills-employment-training.html	Service Canada
Job Bank	Job Bank offers an online listing of job postings from across Canada, job alerts, labour market information, career exploration, and resume building.	https://www.jobbank.gc.ca/home	Service Canada
Entrepreneur and Business Development Program (EBD)	The EBD program assists Indigenous entrepreneurs and Indigenous businesses through project-based support for activities that help facilitate the establishment or growth of Indigenous businesses. Applications are accepted under a continuous intake format. Kakivak Association is the EBD approved service delivery partner for the Qikiqtaaluk Region. Kakivak's Training and Employment Department can be reached by phone: 867-979-0911 or 1-800-561-0911, or email: info@kakivak.ca .	https://www.cannor.gc.ca/eng/1396123434848/1396123576050 http://www.kakivak.ca/en/bus_programs	CanNor

Program	Description	Website	Federal Organization
Inuit Post-Secondary Education Strategy (IPSES)	The goal of this program is to close the post-secondary education attainment gap between Inuit students and non-Indigenous students in Canada through distinctions based and regionally delivered strategic support. This approach includes direct student financial support for Inuit students. Kakivak Association is the IPSES agreement partner for the Qikiqtaaluk Region, and delivers the funding. Kakivak's Training and Employment Department can be reached by phone: 867-979-0911, or 1-800-561- 0911, or email: info@kakivak.ca .	https://www.sac-isc.gc.ca/eng/1578850688146/1578850715764	Indigenous Services Canada
Indigenous Bursaries Search Tool	The Indigenous Bursaries Search Tool can be used to search bursaries, scholarships, and incentives across Canada, offered by governments, universities and colleges, private and public companies, individual Canadians, organizations, and others aimed at Indigenous students.	https://www.sac-isc.gc.ca/eng/1351185180120/1351685455328	Indigenous Services Canada
First Nations and Inuit Youth Employment Strategy (FNIYES) – First Nations and Inuit Skills Link Program	This program supports activities that assist youth in acquiring essential skills that will help them gain employment, function well in the workplace, and learn about job and career options. Activities may include career promotion, science and technology activities, co-operative education placements, and internships and mentored work placements. Kakivak Association is the FNIYES agreement partner for the Qikiqtaaluk Region, and delivers the funding. Kakivak's Training and Employment Department can be reached by phone: 867-979-0911, or 1-800-561-0911, or email: info@kakivak.ca .	https://www.sac-isc.gc.ca/eng/1100100033627/1533125289674 https://www.sac-isc.gc.ca/eng/1100100033607/1533125081187	Indigenous Services Canada

Source: CIRNAC

4.6 PERMANENT CLOSURE CONSIDERATIONS

While this report has focused on the socio-economic dimensions of temporary Project closure, a brief discussion of permanent closure considerations is also warranted. A comprehensive review of these is outside the scope of this report, however, and will be addressed by Baffinland through a separate process.

Many socio-economic effects associated with permanent closure of the Project would be similar to those experienced during temporary closure, although longer-lasting, wider-ranging, and irreversible as Project re-commencement would not occur. These effects are only briefly summarized here. Adverse effects would include permanent loss of local Project employment and wage-earning opportunities, training and skills development opportunities, and business and other economic opportunities. Likewise, GDP from the Project would cease to be generated as would Project revenues for the territorial and federal governments, and Nunavut Inuit associations. All community donations and relevant IIBA fund contributions would also permanently cease.

The topic of community access to Project infrastructure upon closure is also worthy of mention. Upon Project completion, it is not anticipated these facilities would find a viable use for other purposes and would therefore be decommissioned. However, Baffinland has acknowledged that future discussions with Inuit communities and stakeholders (e.g. government, QIA, other mineral developers) could identify potential alternative uses for this infrastructure upon closure. IIBA Article 23.4 (Option to Acquire Project Assets) also establishes a procedure whereby QIA may acquire assets that constitute part of the Project.

Similar to temporary closure, individual employment skills and experience that are gained, and business capacity that is developed as a result of the Project, are expected to ease the transition associated with mine closure. These enhanced capacities should make it easier for some individuals and businesses to take on other opportunities once the Project is complete. Baffinland also continues to support the development of community capacity under the terms of its IIBA; for example, the IIBA mandates contributions to community-oriented funds such as the Business Capacity and Start-Up Fund and Ilagiiktunut Fund. The QIA has additionally established a Legacy Fund and a Benefits Fund that are designed to provide long-term benefits to residents of the Qikiqtaaluk Region. The Project will make substantial contributions to these funds over time. Accessing the funds mentioned above could assist communities with managing transitions associated with mine closure.

Several socio-economic mitigation measures for permanent Project closure are anticipated to be similar to those proposed for temporary closure; however, greater focus would be placed on mitigating adverse effects associated with the anticipated end of local economic benefits and developing informed strategies for sustainable, post-closure benefits for communities. Baffinland would also engage the GN to establish a Labour Market Partnership and joint Labour Adjustment Committee to deal with workforce adjustment issues in the event of permanent mine closure and layoffs.

Baffinland's ICRP provides additional details on current permanent closure plans for the Project. This plan, including associated mitigation and management measures, will continue to be developed and refined by Baffinland as the Project advances. Engagement of relevant stakeholders and communities on permanent closure plans will also occur in the future. This will include integration of relevant IQ and community perspectives into plans for post-mining land use and reclamation activities.

4.7 ADAPTIVE MANAGEMENT

This report has assessed the risks for temporary mine closure and how communities in the North Baffin region may be affected by temporary closure of the Project from a socio-economic perspective. It also reviewed socio-economic planning considerations related to temporary mine closure, in addition to some preliminary permanent closure considerations.

Baffinland will update its relevant management plans to reflect all new socio-economic measures to address temporary closure presented in this report. Where appropriate, these plans may be updated again in the future to reflect any significant changes to the risks and/or potential socio-economic effects of temporary Project closure.

Baffinland will also continue to use adaptive management as a tool for improving the Project's overall socio-economic performance in the future. This is inclusive of temporary closure periods. More specifically, Baffinland will monitor and evaluate progress towards achieving the socio-economic goal and associated objectives it has established for temporary closure, should such a phase occur. Where mitigation is unsuccessful, unanticipated issues arise, or other changes are desired, adaptive management can be employed to ensure the best possible outcomes occur. More details on Baffinland's approach to adaptive management can be found in its *Draft Adaptive Management Plan* (Baffinland 2020), which will guide the integration of adaptive management in a final ICRP, prior to temporary closure, should that event occur.

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