# EXECUTIVE SUMMARY

# 1 INTRODUCTION

Baffinland Iron Mines Corporation (**Baffinland**) operates an iron ore mine (the **Mary River Project** or the **Project**) on northern Baffin Island, in the Qikiqtani Region of Nunavut, in the Eastern Canadian Arctic. The Mary River Project is the only operating mine in the Qikiqtani Region and is one of only three currently operating mines in all of Nunavut.

This amendment application (the **Sustaining Operations Proposal 2** or **SOP2** or the **Proposal**) requests that the Nunavut Impact Review Board (**NIRB**) amend Project Certificate No.005 (the **Project Certificate**) to allow Baffinland to continue to truck and ship up to a nominal 6 million tonnes per annum (**Mtpa**) of iron ore using the Tote Road, Milne Port and the Northern Shipping Route (collectively named the **Northern Transportation Corridor**), as it has been permitted to do since 2018.

The NIRB issued the initial Project Certificate for the Mary River Project on December 28, 2012 which approved the Mary River Project Proposal (including the mine site, improvements to and use of the existing Tote Road, construction of Milne Port and use of the Northern Transportation Corridor for freight and fuel supply and transportation of iron ore along a railway to the south of the mine site and Shipping Route via Steensby Port) (the **Southern Transportation Corridor**)).

With the Early Revenue Phase (**ERP**) Project Certificate Amendment No. 1 issued by NIRB in 2014, Baffinland was permitted to transport up to 4.2 million Mtpa of iron ore along the Northern Transportation Corridor, in addition to the previously approved transportation of iron ore along the Southern Transportation Corridor.

Mining operations started in 2014 with the first iron ore shipped to Europe via Milne Port in 2015.

Through four previous amendments to the Project Certificate (the Production Increase Proposal or **PIP Amendments**)[1] in 2018, 2020, 2022 and 2023, Baffinland has been temporarily permitted to increase the 4.2 Mtpa ERP ore transportation rates by 1.8 Mtpa, which means it is currently allowed to truck and ship iron ore up to a nominal rate of 6 Mtpa along the Northern Transportation Corridor.

The most recently approved PIP Amendment (the Sustaining Operations Proposal; Amendment No. 5) expires on Dec. 31, 2024, which means Baffinland needs to apply for another Project Certificate amendment in order to maintain its operations at the current transportation rates along the Northern Transportation Corridor.

[1] Project Certificate Amendment No. 2 (2018), Amendment No. 3 (2020), Amendment No. 4 (2022) and Amendment No. 5 (2023)

Almost immediately after Amendment No. 5 was issued on November 17, 2023[2], Baffinland initiated pre-SOP2 application engagements with the QIA, communities and stakeholders. This was an early opportunity for Inuit to raise any matters about the continuation of operating at a nominal 6 mtpa rate for the time period proposed under SOP2. Baffinland continues to engage with Inuit groups and the communities in relation to the Proposal and welcomes any feedback that groups or individuals wish to share.

Baffinland has prepared the enclosed SOP2 FEIS Addendum. The SOP2 FEIS Addendum builds on past impact assessments conducted for the Mary River Project, and incorporates feedback received from QIA, local communities, regulatory agencies and other interested parties as well as the results from ongoing environmental management and monitoring programs. The SOP2 FEIS Addendum reflects the lessons learned from operating a nominal 6 Mtpa Project since 2018, including feedback received from affected communities and regulators through the annual engagement and reporting process, respectively. Multiple lines of evidence support the effects predictions contained within the SOP2 FEIS Addendum, including, but not limited to:

- approximately 20 years of community feedback and Inuit Qaujimajatuqangit (IQ) collected specific to the Mary River Project, including third party reports commissioned by the QIA;
- expert opinions from qualified professionals based on best available scientific evidence and IQ;
- baseline information collected prior to and during project development; and
- ten years of operational monitoring results from an extensive environmental and socio-economic monitoring programs established under the Project Certificate, six years of monitoring which applied to the exact activities proposed under SOP2 (2018-2023).

Based on the outcomes of pre-application engagement, this SOP2 FEIS Addendum reflects detailed robust analysis of cumulative effects, Valued Components (**VCs**), IQ and feedback from Inuit.

[2] Prior to Baffinland's amendment application for the SOP, several hamlets, HTOs and organizations issued letters supporting a 6 Mtpa trucking operation though the Northern Transportation Corridor for an indefinite period. However, Baffinland proceeded with a 2-year SOP application based on advice received from other parties during pre-SOP engagement. Baffinland was transparent during the SOP NIRB assessment that it would be seeking to extend 6 Mtpa Northern Transportation Corridor limits past December 31, 2024 in a subsequent application.

# 2 PROJECT DESCRIPTION

## 2.1 Purpose and Need for the SOP2 Proposal

In SOP2, Baffinland is seeking to maintain trucking and shipping within the Northern Transportation Corridor as currently approved under s. 179(a) and (b) of the Project Certificate. Baffinland is not requesting any increase or changes to current NIRB approved rates. Baffinland is also not requesting any additional infrastructure or changes to the footprint as part of SOP2.

Baffinland is requesting an expiry date for SOP2 of

(a) Dec. 31, 2032**,** or

(b) until the Steensby Railway and Port (**Steensby Components**) have been commissioned and the Steensby Railway has achieved commercial transportation rates[3]

(whatever date comes first).

Once the Steensby Railway achieves commercial transportation rates, Baffinland will stop trucking and shipping iron ore through the Northern Transportation Corridor, leaving only freight and fuel shipments to continue through that route (per the original Mary River Project Proposal approved in 2012).[4] While the SOP2 FEIS Addendum continues to request a time-limited approval to maintain a nominal 6 mtpa operation through the Northern Transportation Corridor, it also proposes a permanent modification to the Project by ceasing all ore transportation through the Northern Transportation Corridor once the Steensby Components are operational and achieve commercial transportation rates.

SOP2 significantly reduces the scope of Approved Mary River Project activities under the Project Certificate in the long term. The scope of the current Approved Project is the Mary River Project Proposal approved by NIRB in 2012, the ERP approved in 2014 and the most recent PIP Amendment approved in November 2023.[5] Once the Steensby Railway achieves commercial transportation rates, SOP2 removes the approved Northern Transportation Corridor ore trucking and shipping component from the Approved Project. The phasing out of ore trucking and shipping through the Northern Transportation Corridor effectively returns the scope of the Mary River Project to what was approved by NIRB in 2012 and removes any potential for combined and cumulative effects on the environment from transporting ore through two separate transportation corridors.

[3] Commercial transportation rates shall be deemed achieved when each of the following has occurred: (a) full commissioning and testing of the rail has been completed; (b) full construction of the Steensby Port infrastructure has been completed; and (c) the rail is running at an average 36,000 tonnes per day for not less than 30 consecutive days.
[4] An up to 90 day transitional period for trucking activities will apply. Baffinland will evacuate ore remaining at Milne Port by ship over the following up to two shipping seasons after the Steensby Railway achieves commercial transportation rates.
[5] The Sustaining Operations Proposal, or SOP

As with the previous PIP Amendments, SOP2 is crucial to support Mary River Project economic stability while Baffinland continues to pursue investment in the Steensby Components[6], which are an essential component of the Approved Project.

Baffinland is the largest private employer in the Qikiqtani region with approximately 1,700 full-time equivalent employees in 2023. As of the last reporting period ended March 31, 2024 over 360 Inuit employees (including both Baffinland staff and contractors) by head count directly supported the Project. This does not include the many thousands of contracting and other jobs located in Nunavut and Southern Canada that depend in whole or in part on the Mary River Project.

To date, through the Mary River Inuit Impact Benefit Agreement (**IIBA**) and other community partnerships, Baffinland has cumulatively paid more than $164 million in financial benefits to Qikiqtani Inuit,[7] provided over $150 million in wages to Inuit employees and contractors, reached over $1.79 billion in contracts awarded to Inuit firms, provided over $3.8 million through its Sponsorship and Donation Program, seen over 650 graduates of pre-employment training programs, and delivered over 229,000 hours of training to Inuit employees, amongst other socio-economic benefits.

Approval of SOP2 will help support the continuation of the monetary and non-monetary benefits which flow to Qikiqtani Inuit, other Nunavummiut, and Canadians generally as a result of the Mary River Project.

## 2.2 Summary of SOP2 Components and Activities

The scope of SOP2 involves the following activities, which are consistent with the project conditions that have been in place since 2018, and include:

- Continuation of mining from Deposit No. 1;
- Continuation of the trucking and shipping of an additional 1.8 Mtpa of iron ore over the previously approved 4.2 Mtpa under the ERP, for a total nominal volume of up to 6 Mtpa of iron ore (as has been the case since 2018), plus the shipment (but not trucking) of any ore remaining at Milne Port at the close of the previous shipping season up to 0.9 Mt (as has been the case since 2023), until the conditions are met for ceasing ore transport via the Northern Transportation Corridor, per proposed wording for Term and Condition 179(a) and (b) at Section 1.3;
- No change to the Project Development Areas (PDAs) or use of facilities at the Mine Site, along the Tote Road and Milne Port (i.e. no change to any spatial assessment or lease boundaries);
- No change to the timing and length of the shipping season outlined in Term and Condition 185 of the Project Certificate; and
- No change to other aspects of the Approved Project.

[6] Not yet constructed
[7] These financial benefits are paid to the QIA, in trust for Qikiqtani Inuit, in the form of royalties, lease payments, and other direct payments under the terms of the Mary River IIBA.

These activities do not represent a material change to the scope of Baffinland's operations as approved since 2018, but do reflect additional mitigation and monitoring measures that have been integrated into the Project over time, many in direct response to community and regulator engagements. The only modification to the Project that has been operated since 2018 is the request under the SOP2 Application to extend the duration (i.e. temporal scope) of the approval to operate at a nominal 6 Mtpa rate, which is until 2032 or once the Steensby Railway achieves commercial transportation rates, whichever is sooner.

- Following the commencement of Steensy Railway operations at or above commercial transportation rates, Baffinland will initiate the process of discontinuing all ore transportation activities through the Northern Transportation Corridor, subject to the following two timelines:Within 90 days of achieving commercial transportation rates along the Steensby Railway, ore stockpiling, crushing and screening at the outdoor crushing facility will cease, as will the transportation of ore along the Tote Road
- All ore remaining at Milne Port at the time the Steensby Railway reaches commercial transportation rates will be evacuated in no more than the following two shipping seasons.

## 2.3 Summary of Approved Project Components and Activities

The Approved Project includes the following high level activities:

- Ore extraction and processing at the Mine Site from Deposit No. 1;
- Ground transportation of iron ore from the Mine Site to Milne Port (Tote Road) (currently approved to continue at a rate of 6 Mtpa through December 31, 2024, reverting back to the 4.2 Mtpa approved ERP rates after December 31, 2024 unless the Project Certificate is amended);
- Stockpiling at Mine Port including an ore dock and ore stockpile area that includes a conveyor and ship loader;
- Ground transportation of iron ore from the Mine Site to Steensby Port via an approximately 149 km long railway (i.e., Steensby Railway; not currently constructed);
- Stockpiling at Steensby Port including an ore dock and ore stockpile area that includes a stacker-reclaimer, conveyor and ship loader;
- Operation of the Northern Shipping Route during the annual shipping period from July through end October from Milne Port to pass through Milne Inlet, Eclipse Sound, and Pond Inlet into Baffin Bay; and
- Operation of the Southern Shipping Route year-round from Steensby Port to pass through Foxe Basin, Hudson Straight and into the North Atlantic

The Mine Site, Tote Road and Milne Port are all already constructed and have been in operations since 2014. Construction and initial operations of the Steensby Component of the Approved Project (i.e., aspects which relate to the development of ore transportation infrastructure south of the Mine Site including the Steensby Railway, Steensby Port and shipping within the Southern Shipping Route) may overlap spatially and/or temporally with SOP2 but SOP2 does not change any aspect of the already approved construction or operation of the Steensby Components.

## 2.4 Long Term Development Plan

Baffinland has been working to define and clarify its long-term development plans while also engaging external parties, including the QIA, for transparency and feedback.

Baffinland has consistently indicated that a rail line is required for the long term viability of the Project. In addition, expansion of the mine's resources through access to other deposits is essential to ensure the delivery of the Mary River Mine's multi-generational potential. The construction and commissioning of the Steensby Railway and Port is within Baffinland's near term plans, although this continues to be contingent on receiving remaining operational permits, project financing and a positive construction decision. The Steensby Railway, amongst other things will eliminate ore hauling trucks on the Tote Road, will reduce the level of overall interaction that the Mary River Project has with land users and wildlife generally, and is more efficient compared to high-volume trucking.

It is acknowledged that mining deposits other than Deposit No. 1 will require further assessment and regulatory approvals. To advance Deposits No. 2 and 3, which are immediately adjacent to Deposit No. 1 and the existing Mine Site PDA, Baffinland has begun to expand its existing monitoring programs to ensure an adequate and current baseline understanding of conditions in the future development area. Baffinland also acknowledges that the ability to utilize the full capacity of Project infrastructure is subject to 1) operational experience and 2) the results of environmental monitoring programs that demonstrate the effects of the Project remain within predictions and are robust enough to account for the additional activities.

# 3 INUIT QAUJIMAJATUQANGIT AND INUIT ENGAGEMENT

Baffinland views IQ as central to the successful planning and operations of the Project and has worked with the QIA for over a decade to develop methodological approaches for IQ studies, consistent with best practice, the Nunavut Agreements and the IIBA. Baffinland has developed an IQ Framework, which is applicable to the current Project and SOP2. The IQ Framework would support collaboration and decision-making throughout the lifetime of the Project and is not limited to the approach or methods associated with an individual IQ study. Baffinland has made multiple project modifications as a direct result of IQ and other Inuit Knowledge shared by Inuit.

A number of knowledge sources have been considered for integration into the Project, extending from early planning stages to present. IQ has influenced the selection of VCs, baseline study design and implementation, definition of temporal and spatial boundary limits, Project infrastructure design and operations, identification and implementation of mitigation and management measures, and assessment of effectiveness of potential Project-related effects through monitoring programs. Examples of information sources used by Baffinland for IQ include community-based research initiatives, targeted workshops, the Mary River Land Use Study (led by Baffinland), Tusaqtavut Studies (led by QIA), environment and socio-economic working groups, Inuit participation in Baffinland-led monitoring programs, community-based monitoring programs, and NIRB formal written processes and opportunities for oral participation.

Where feedback was provided by Inuit on topics related to Inuit rights, this was specifically integrated as part of how each VC was viewed, interpreted and considered. If Inuit identified potential impacts of concern to them in relation to a particular Valued Component, this was treated as an item of priority concern and focus that required carry through in the assessment. Specifically, where there is an identified potential for related impacts on or interference with rights (in particular, where Inuit groups or community members indicate there is potential for interference), additional appropriate and meaningful mitigations are given consideration and applied. These factors are part of the residual, combined, and cumulative effects analyses. Section 8 provides more information on feedback obtained relating to the Inuit experience with the Approved Project.

# 4 BIOPHYSICAL AND SOCIO-ECNOOMIC SETTING

## 4.1 Physical Setting

The landforms and the iron ore deposits in the Mary River Project area are associated with widespread past and current glaciation on Baffin Island. The topography includes non-mountainous terrain characterized by major land components such as dry, rugged uplands, rolling plains, and lowland features with some standing water as well as mountainous terrain with some occurrence of glaciers. Deposit No. 1 (Nulujaak), from which iron ore is being extracted, is part of a ridge trending approximately north–south that rises quickly above the flat and sandy outwash plain where the exploration camp is currently located. Nulujaak is a major landmark for Inuit travelling on the land.

Bedrock geology is characterized as granite greenstone terrain mixed with sedimentary and volcanic rock. Occasional outcrops of granitic and sedimentary rock formations occur. Surface geology consists of locally abundant sediment deposits from glaciers and rivers.

The Project is situated in the Northern Arctic Ecozone. The climate is semi-arid with relatively little precipitation. Permafrost coverage is continuous, extending to a depth of 500 metres, with an active layer of up to 2 metres. The region experiences near 24-hour darkness with less than two hours of twilight from November to January. Air quality is very good and noise levels are low in the Project area as is typical of a remote environment. The Approved Project activities are the only existing local source of air pollutants.

All rivers and creeks, except for the very largest systems, freeze entirely during winter. Freshwater quality measurements in the Mary River area indicate naturally elevated concentrations of dissolved oxygen, aluminum, and iron.

## 4.2 Biological Setting

Due to the combination of low temperatures and the low capacity of the soil to hold moisture, vegetation is minimal, and surface water is abundant. The region is dotted with thousands of small lakes and streams. Vegetation cover consists of grasses, herbs, shrubs, and lichens, but the diversity of vegetation species is relatively low.

Animal diversity and abundance in the area are generally lower than on the mainland portions of Nunavut and possibly cyclic with long periods between years of abundance. Terrestrial mammals in the region include barren-ground caribou of the North Baffin herd (*Rangifer tarandus groenlandicus*), wolf (*Canis lupus*), Arctic fox (*Vulpes lagopus*), brown lemming (*Lemmus trimucronatus*), Peary Land (northern) collared lemming (*Dicrostonyx groenlandicus*), Arctic hare (*Lepus arcticus*) and ermine (*Mustela erminea*).

Caribou is considered a focal species for the Project as it is the only ungulate on Baffin Island and an important food source for local communities. North Baffin caribou are currently present at low densities, and their numbers seem to vary according to a 60- to 70-year cycle. The last period of caribou abundance in the area was 1980 to 2000, and the previous period of low abundance was in the 1940s. Caribou are expected to remain at low numbers for the next couple of decades. However, there is evidence that caribou do occur throughout the entire region. While some caribou populations migrate between preferred habitats in summer and winter, North

Baffin caribou appear non-migratory. They are likely to be found relatively equally in many locations throughout the Project area.

Terrestrial and aquatic bird species found on northern Baffin Island generally reflect those expected in the eastern Canadian Arctic. There are also numerous sea birds in the shipping route, including thick billed murres and many gull species.

There are two fish species in the freshwater environment: Arctic char (*Salvenlinus alpinus*) and ninespine stickleback (*Pungitius pungitius*). The inland waters near the Mine Site and north towards Milne Port contain landlocked Arctic char.

Marine habitats within the Project area are located mostly within the Arctic Archipelago Marine Ecozone. This Ecozone is comprised of a patchwork of interconnecting bays, fjords, channels, straits, sounds and gulfs rather than vast, open seascapes. During the winter, sea ice creates a solid sheet over the waters of the Ecozone except for localized areas where currents and upwellings create areas of open water called polynyas. The sea ice breaks up during the brief spring and summer seasons and most of the sea ice will have either melted or drifted away on southerly currents by September; however, some ice can persist throughout the year (Environment Canada 2011).

Along the northern shipping route, Bylot Island and the adjacent regions of northern Baffin Island, more than 74 species of birds (both marine and terrestrial species) have been documented. Along the southern shipping route, the nutrient-rich cold waters, numerous islands, and vast diversity of habitat types along Foxe Basin and Hudson Strait, also make them important regions for many species of seabirds, shorebirds, geese, ducks, eiders and loons.

Marine benthic epifauna communities in the Arctic are generally dominated by brittle stars, sea urchins, sea cucumbers, sea stars, bivalves, crabs, and other crustaceans. A total of 13 different marine fish species have been identified in the Milne Port area, with Arctic char and sculpin representing the most common fish species in the marine environment (WSP 2024g).

A total of 11 species have the potential to occur in the marine RSA during the SOP2 shipping season, including four species of toothed whales (narwhal, beluga, killer whale and sperm whale), one species of baleen whale (bowhead whale), five species of pinnipeds (ringed seal, bearded seal, harp seal, hooded seal and walrus) and polar bear. Each of these species is endemic to the Arctic and unique with respect to their seasonal occurrence and habitat use in the RSA, with narwhal and ringed seal being the most common species in the RSA.

## 4.3 Socio-economic Setting

The Baffin Region of Nunavut has a rich and visible archaeological heritage dating back thousands of years. There are many archaeological sites with varying degrees of importance that have been found in the project area, particularly around Milne Port and Steensby Port, and the transportation corridors between them.

The five communities of the North Baffin region in the immediate vicinity of the Mary River Project and Northern Shipping Route, listed alphabetically, include Arctic Bay (280 km), Clyde River (415 km), Sanirajak (192 km), Igloolik (155 km), and Pond Inlet (160 km). There are also two additional communities along the Southern Shipping Route that will be considered point of hire communities once the Steensby Component of the Project becomes operational, these are the South Baffin communities of Kinngait and Kimmirut.

Each of these North Baffin communities have long term social, cultural and economic ties to the Project area. In all five communities, caribou, ringed seal, and Arctic char are of major importance. In Milne Inlet and Eclipse Sound, narwhal is a key component of the harvest among households in Arctic Bay, Pond Inlet, and to a lesser degree, Clyde River.

Demand amongst residents for wage employment is very high, however, job opportunities in the North Baffin are limited. Approximately one-in-five jobs in North Baffin and Iqaluit require a university education. One-quarter to one-third of jobs in the region require college or apprenticeship levels of training and skills. A similar number require high school education and/or occupation-specific training. The remainder can be accessed by unskilled workers with on-the-job training. The opportunities for employment are much more limited for those who do not have sufficient education or training.

The Government of Nunavut relies on federal transfer payments for at least 90% of its revenue. Government employment is a mainstay of the wage economy with many of Nunavut's small businesses and retail outlets established to support government needs, or those of public servants. Construction employment has also been growing to support the development of government infrastructure.

The North Baffin has seen some resource development in the past including the operation of the Polaris and Nanisvik mines. More recently mineral and petroleum exploration in the area have wavered and disappeared, respectively. The Mary River Project is the only operating mine in the eastern Arctic and only a few other companies are running small exploration projects in any given year.

# 5 ENVIRONMENTAL MANAGEMENT

Baffinland developed environmental management and monitoring documents to support the original applications for the Approved Project and has continued to update existing plans through its operations. These include:

- Construction, Operation, Reclamation and Closure Plans
- Water Use and Management Plans
- Waste Management Plans
- Health, Safety, Emergency Response and Contingency Plans
- Biophysical and Atmospheric Environment Plans
- Socio-economic Plans

Adaptive management has been integrated into the construction, operation, reclamation, and closure of the Project in several capacities, including water use and management, waste management, health, safety, emergency response and contingency, biophysical and atmospheric environment, socio-economic environment, transportation, and Inuit stewardship of the Project. Multiple management plans have undergone or continue to undergo review between Baffinland and the QIA to incorporate adaptive management mechanisms, with a priority for environmental management plans that relate to narwhal, seal, Arctic char, caribou, dust and culture, resources and land use.

Following a comprehensive review of existing management plans during the development of the SOP2 FEIS Addendum, Baffinland confirms that no adjustments are required to account for the extended duration of a nominal 6 Mtpa operation through the Northern Transportation Corridor, as proposed under SOP2. Further, no adjustments to current management plans are required to account for the Steensby Component construction period. The construction of Steensby Components will predominantly be managed through a series of short term and activity specific construction management plans, as required by various authorizations (e.g. Fisheries Act Authorizations). Those plans will be made available to the NIRB and public in due course as they are finalized based on the outcomes of detailed authorizations. Management plans relevant to the SOP2 are outlined in Section 5.1 of the SOP2 FEIS Addendum.

While no updates to management plans are required for the specific activities proposed under SOP, management plans are reviewed and adjusted as part of regular operations and feedback cycles and updated are typically submitted to the NIRB and NWB through the annual reporting process, which enables public review. Should any new commitments be made during SOP2, these plans will be updated following that process.

Relevant mitigation and monitoring measures that Baffinland has committed to undertake for the Approved Project (i.e., mitigation measures pertaining to ore extraction, handling, stockpiling, truck transportation, and marine shipping) will continue to be implemented for SOP2. Monitoring programs provide feedback on effects predictions and mitigation effectiveness and alert Baffinland to any previously unidentified risks. Baffinland continues implementing a comprehensive environmental management system that has applied to seven consecutive years of 6 Mtpa activity levels (2018-2024). Baffinland commits to incorporating IQ and scientific knowledge in monitoring.

# 6 IMPACT ASSESSMENT APPROACH AND METHODS

The general methodology used for the effects assessment of SOP2 considers past impact assessments conducted for the Mary River Project, and incorporates feedback received from QIA, local communities, regulatory agencies and other interested parties and results from ongoing environmental management and monitoring programs. The SOP2 FEIS Addendum also incorporates IQ that has been made available to Baffinland over time. IQ has influenced science and data collection, baseline reports, issues scoping, effects assessment and mitigation and monitoring.

SOP2 is a temporal extension of previously approved activities, most recently assessed through the SOP FEIS Addendum (Baffinland 2023a). It does not introduce any new infrastructure or activities or result in new effects. However, this assessment for the SOP2 FEIS Addendum differs from the SOP FEIS Addendum (Baffinland 2023a) in that a greater emphasis is placed on assessment of combined effects and cumulative effects. The term "combined effects" is used in this SOP2 FEIS Addendum to represent potential additive effects associated with different components of the Mary River Project including SOP2 and Approved Project activities. This approach (i.e., assessing as combined effects) provides a more focused assessment of the overlap of SOP2 activities with the construction and initial operation of Steensby Components of the Approved Project. Figure ES.1 presents the overall assessment approach used in the SOP2 FEIS Addendum.

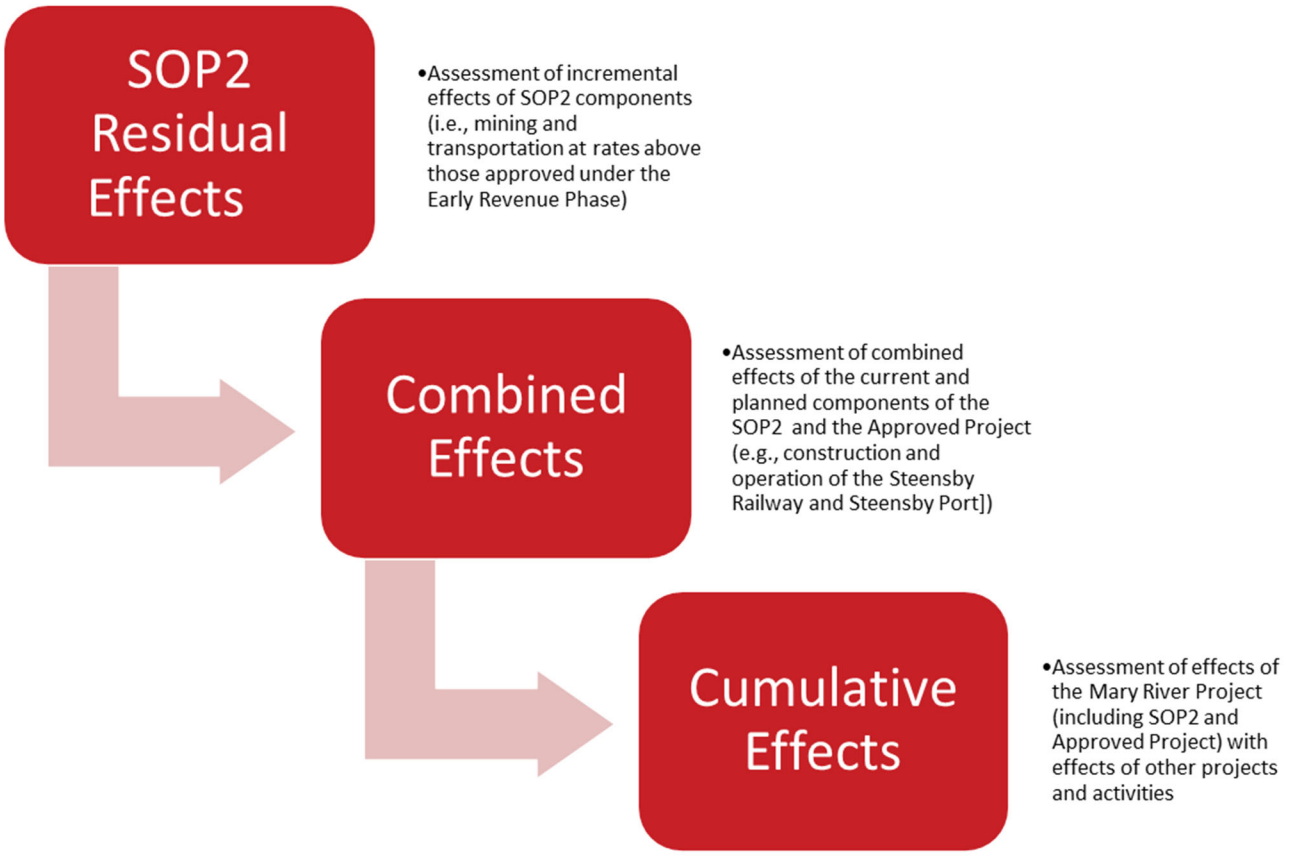


**Figure ES.1: Overall Impact Assessment Approach used for the SOP2 FEIS Addendum**

As Baffinland described and committed to at the Cumulative Effects Assessment Framework Workshop held by NIRB in Iqaluit in February 2024, the SOP2 FEIS Addendum addresses ecosystemic and socio-economic impacts of SOP2 on VCs and explicitly considers residual effects of the incremental transportation rates under SOP2, the combined effects of SOP2 and other Approved Project components and activities, and anticipated cumulative effects of SOP2 and Approved Project with effects of other projects and activities occurring in the region.

Spatial boundaries for the assessment of SOP2 were determined based on the anticipated local and regional study areas established to consider project effects for each VC. Potential Development Areas (PDAs) are defined as the footprints of direct physical disturbance for the Approved Project which include Milne Port, Milne Inlet Tote Road, the Mine Site, Steensby Railway and Steensby Port. Local Study Areas (LSAs) are defined as areas where there exists reasonable potential for direct interaction due to project activities, ongoing normal activities, or possible abnormal operating conditions (i.e., accidents and malfunctions). The LSA includes all existing and proposed Project facilities (PDAs), and the nominal shipping route in the NSA. Individual LSAs were defined for each biophysical environmental component, and for land use and other socio-economic components. Regional Study Areas (RSAs) are defined as the area within which there exists the potential for direct, indirect, and/or cumulative biophysical and socio-economic effects. This area includes lands, waters, and potentially affected communities within the Nunavut Settlement Area (NSA).

Past, current and reasonably foreseeable projects and activities occurring within the NSA, which could interact with VCs potentially affected by the Mary River Project, are identified and screened for inclusion in the cumulative effects assessment (CEA). These projects and activities include mining and mineral exploration; pits and quarries; military activities; transportation; tourism; protected areas; communities; monitoring and research; commercial fisheries; and natural events (e.g., climate change). Baffinland's ongoing mineral exploration and future development plans (e.g., Deposits No. 2 to 9) are also considered in the CEA. Recognizing that the migratory ranges of some VCs extend beyond the NSA where they may be exposed to other stressors contributing to cumulative effects, those additional stressors beyond the NSA are described and considered, as applicable.

Residual effects (i.e., environmental effects that are predicted to remain after avoidance, mitigation, and compensation are considered) of SOP2, combined effects and cumulative effects are characterized in terms of the nature, magnitude, duration, frequency, extent, reversibility and probability of the effect. Predictions of significance of these effects considers these attributes as well as additional factors listed in section 90 of the *Nunavut Planning and Project Assessment Act*.

Baffinland recognizes the term "significance" is used differently in different contexts. Inuit have shared different views with Baffinland on what the word "significance" means to them. Some Inuit have told Baffinland that any change to the environment in which they live and carry out harvesting and other cultural practices is significant. Many Inuit have been clear that they expect Baffinland to make efforts to prevent negative impacts, regardless of how big or small those impacts may be. Baffinland also respects there are some aspects of Inuit views on significance that may be challenging to put into words (written and oral), and that non-Inuit may never fully understand. Based on this more holistic understanding of "significance", Baffinland has worked with Inuit and regulatory authorities to develop mitigation measures and monitoring programs to address Inuit concerns.

The evaluation of significance in the SOP2 FEIS Addendum has been completed against the thresholds established in the FEIS (Baffinland 2012) but also explicitly considers community views (including on sensitivity to change and views on actual observed changes or risks of change) and the actions taken to address any community concerns. However, where a 'non-significant' effect finding is predicted that in no way means that Baffinland will treat the concerns and views shared with Baffinland as 'non-significant'. A determination of non-significance will still result in monitoring programs to be applied and additional mitigation measures to be considered where relevant.

The Adaptive Management measures that have been developed for the Project will ensure that this continuous feedback loop will continue throughout the life of the Project, and that mitigations may continue to be developed as a result of feedback on topics of importance to local Inuit.

# 7 ASSESMENT OF RESIDUAL, COMBINED AND CUMULATIVE EFFECTS

## 7.1 Atmospheric Environment

Atmospheric Environment VCs include Climate Change, Air Quality, and Noise and Vibration. The assessment of Atmospheric Environment VCs is closely linked to the assessment of several other biophysical and socio-economic VCs.

Approval of SOP2 will mean a continuation of mining, trucking and shipping activities currently happening for the Approved Project. Therefore, existing issues and concerns related to air, dust, noise and vibration associated with the current operations may continue in the future. In consideration of the implementation of mitigation and management measures, residual effects of SOP2 are predicted to be not significant. However, Baffinland acknowledges that, for some Inuit, any change to the environment in which they live and carry out harvesting and other cultural practices is significant.

In consideration of the temporal overlap of SOP2 and construction and operation of the Steensby Component of the Approved Project, combined residual effects of SOP2 and the Approved Project are also predicted to be not significant. Although there will be a temporary increase, once the Steensby Component of the Approved Project has achieved commercial transportation rates (per Section 1.3), northern transportation of iron ore (SOP2) will end and there will be an improvement (reduction) in GHG and air emissions (including dust), noise and vibration within the Air Quality and Noise and Vibration LSAs associated with Tote Road and Milne Port and project contributions to combined and cumulative effects on Atmospheric Environment VCs will be reduced.

Cumulative effects on climate change, air quality and noise and vibration are predicted to be not significant, primarily due to the geographic extent of effects of the Mary River Project and distance from other projects and activities, resulting in limited overlap of residual effects in space and time. Future development plans associated with the Mary River Project (i.e., mining and development of Deposits No. 2 and 3) will extend the duration of cumulative effects on Atmospheric Environment VCs. Since mining and development of future deposits will occur in relative proximity to the existing Mine Site, depending on the overlap with activities of the Approved Project, this future development could also potentially increase the magnitude of cumulative effects.

Baffinland understands that air emissions, dust, noise and vibration can affect Inuit hunting, harvesting, fishing, freshwater use, and travel. Working with the QIA, Baffinland has made considerable progress in managing effects through improved monitoring and updating control measures. These improvements will continue in the future to avoid significant adverse effects (including cumulative effects) on the Atmospheric Environment.

## 7.2 Terrestrial Environment

Terrestrial Environment VCs include Ground/Permafrost Stability, Snow Quality, Vegetation Quality, Birds and Bird Habitat, Terrestrial Wildlife and Wildlife Habitat, and Caribou. This VC list is expanded from what was previously assessed based on feedback received during the February 2024 CEA Framework Workshop (NIRB 2024). Several other enhancements are reflected in the SOP2 FEIS Addendum based on community feedback. In recognition of project-related dustfall on the land, Snow Quality and Vegetation Quality are assessed as stand-alone VCs focusing on dust-related effects. Ranges of birds, caribou and other wildlife species are considered, recognizing that these species may be affected by cumulative stressors beyond the range of the terrestrial RSA.

Approval of SOP2 will mean continuing mining, trucking, and shipping activities for the Approved Project. Therefore, issues and concerns related to vegetation, birds, caribou, other wildlife, and wildlife habitats associated with the current operations may continue. Baffinland understands that dust, noise, and traffic can disturb wildlife and affect Inuit hunting, harvesting, and food sources. Working with the QIA, the GN, and the MHTO, Baffinland has made considerable progress in managing effects through improved mitigation and Inuit engagement in monitoring. Direct effects of the Project on the terrestrial environment are expected but are limited to the footprint areas adjacent to the Project's infrastructure. As a result, the effects on the Terrestrial Environment are predicted to improve compared to what is currently perceived by community members. Vegetation and wildlife habitat remain relatively undisturbed within the RSA.

Although no effects have been detected to date on vegetation outside of the PDA, dust deposition will continue to occur as a potential residual effect on vegetation adjacent to the Tote Road portion of the PDA. Baffinland will continue with regional monitoring efforts on vegetation abundance and health monitoring to ensure that dustfall does not harm vegetation outside the PDA. SOP2 results in persistent dust generation from the continued use of the Tote Road by ore haul traffic, and the combined effects will continue to be not significant at the level of vegetation abundance and health in the Regional Study Area.

The combined Approved Project and SOP2, and other regional interacting effects will have localized effects on bird, wildlife and caribou use of the PDA and adjacent zone of influence (ZOI). There is a measurable wildlife habitat loss to the PDA, and there are expected behavioural changes of wildlife using habitat adjacent to the PDA within a predicted ZOI. The North Baffin Island caribou population is expected to recover through the life of SOP2 and Approved Project. Presuming that the population recovery occurs as traditional knowledge suggests, the combined project effects on caribou will be limited to within the PDA and adjacent ZOI. Baffinland will continue with caribou monitoring and support regional study efforts to ensure that caribou can co-exist with the Project on North Baffin Island. SOP2 will result in a persisting potential ZOI along the Tote Road, and the combined effects will continue to be not significant at the level of bird and wildlife occurrence, and bird and wildlife habitat use within the Regional Study Area. The effects on caribou will remain limited to that predicted from the PDA and ZOI predicted in the Approved Project. While caribou are expected to behave differently near the Project, the combined effects will continue to be not significant on the North Baffin Island caribou herd.

Cumulative effects on ground and permafrost stability, snow quality, vegetation quality, birds and bird habitat, terrestrial wildlife, and caribou are predicted to be not significant, primarily due to the geographic extent of effects of the Mary River Project and distance from other projects and activities, resulting in limited overlap of residual effects in space and time. Climate change may have a disruptive effect on all the terrestrial environment VCs. However, changes in environmental processes because of climate change will occur independently of the Mary River Project. Therefore, potential interactions of climate change with the Project and their effects on terrestrial VCs are limited and likely not measurable within the life of the Project.

The Mary River Project's contribution to potential cumulative effects on the terrestrial environment include a potentially expanding footprint and sustained sensory disturbance associated with mining activities. Recognizing that other disturbances outside of the control of the Mary River Project might occur within the Terrestrial RSA and the range of the north Baffin Island caribou, adaptive management and monitoring will continue to inform on the effects and the effectiveness of corrective actions. The Project will continue to implement reasonable

corrective actions and manage activities within the context of an arctic mining project that contributes to regional, national and global cumulative effects.

Baffinland will continue to implement the following existing mitigation measures, techniques and plans to reduce and monitor the effects of project activities on Terrestrial Environment VCs. Baffinland is committed to adaptive management, and as such, they have committed to collaborating with QIA on several initiatives, including:

- Supporting and funding a study of North Baffin caribou study based on IQ, which the QIA will lead in conjunction with HTOs.
- Continue participating in the third-party independent Dust Audit Committee
- Continued support of the Inuit-led monitoring program on dustfall as an Inuit Stewardship Pilot program, including identifying a snow quality metric.

## 7.3 Freshwater Environment

Freshwater Environment VCs include: Freshwater Quantity and Quality, Freshwater Biota and Habitat, and Arctic Char in the Freshwater Environment. This VC list is expanded from what was previously assessed. Previously Arctic Char was assessed as an indicator under the Freshwater Biota and Habitat, however, Baffinland committed to evaluating Arctic Char as a separate VC as a result of the CEA Framework Workshop held by NIRB in February 2024. Refer to Section 6.4 for an assessment of effects on anadromous Arctic char in the marine environment.

Approval of SOP2 will mean a continuation of mining, trucking, and shipping activities that are currently happening for the Approved Project. Therefore, existing issues and concerns related to surface water and sediment quality, freshwater biota and habitat, and fish (specifically Arctic char), associated with the current operations may continue. Baffinland understands from Inuit that dust deposition in lakes and streams can affect Inuit use of freshwater for drinking water, fishing and fish habitat. Working with the QIA, Baffinland has made considerable progress in managing dust deposition effects through improved monitoring and updating control measures. As a result of these on-going improvements, effects on the Freshwater Environment from dust deposition are predicted to continue to improve relative to how they are currently perceived by Inuit.

Some mine-related changes in surface water quality have been identified in the core receiving environment near the Mine Site through the CREMP, however, all water parameter concentrations have been within predicted significance ratings for magnitude of effects on water and sediment quality predicted in for the Approved Project (Baffinland 2012 and 2013). Baffinland will continue water quantity and quality monitoring efforts under the AEMP and apply mitigation measures through management plans. The combined effects of SOP2 and the Approved Project on freshwater quantity are equivalent to those of the Approved Project and remain not significant. The combined effects of SOP2 and the Approved Project on freshwater quality are not expected to substantially change in magnitude, frequency, extent, reversibility, or probability from the assessment of the Approved Project and also remain not significant.

Although some stream crossings with potential issues requiring remediation have been identified along the Tote Road, appropriate remedial actions, once approved by DFO, will be implemented to address these issues. Monitoring efforts at water crossings along the Tote Road will be continued and updated thereby mitigating any potential effects on physical habitat associated with continued use of the Tote Road for SOP2 activities. As of 2023, no adverse mine-related effects on phytoplankton productivity (as chlorophyll-a concentration) and benthic invertebrate community composition in the core receiving environment near the Mine Site have been identified through the CREMP. Baffinland will continue monitoring and adaptive management efforts under the AEMP (including component and related monitoring programs). The combined effects of SOP2 and the Approved Project on freshwater biota and habitat, due to changes in water and/or sediment quality, or physical impacts to habitat are not expected to substantially change in magnitude, frequency, extent, reversibility, or probability from the assessment of the Approved Project and remain not significant.

As of 2023, all water and sediment quality parameter concentrations have been within applicable significance ratings for magnitude predicted for the Approved Project (Baffinland 2012 and 2013) suggesting that predictions for (absence of) effects on Arctic char health and condition were also met. Baffinland will continue monitoring and adaptive management efforts under the AEMP. The combined effects of SOP2 and the Approved Project on Arctic char are not expected to substantially change in magnitude, frequency, extent, reversibility, or probability from the assessment of the Approved Project and remain not significant.

Based on residual effects of the combined SOP2 and Approved Project not being significant, and limited spatial and temporal overlap of the combined SOP2 and Approved Projects with other developments and activities, cumulative effects on all Freshwater Environment VCs are predicted to be not significant.

### 7.4 Marine Environment

Marine Environment VCs include: Sea Ice, Marine Water and Sediment Quality, Marine Habitat and Biota, Anadromous Arctic Char, Narwhal, Ringed Seal, Walrus and Marine Mammals. This VC list is expanded from what was previously assessed based on feedback received during the CEA Workshop (NIRB 2024). Although all of these components were previously assessed, in some cases (e.g., anadromous Arctic char, narwhal, ringed seal and walrus), they were assessed as key indicators under related VCs (e.g., Marine Habitat and Biota, Marine Mammals). Elevating these components to stand-alone VCs facilitates a more thorough understanding of community concerns and potential effects on these aspects of the Marine Environment and associated Inuit rights. For example, different aspects of SOP2 and the Approved Project (e.g., northern or southern shipping routes) may affect different species (e.g., ringed seal, walrus) or populations of species (e.g., narwhal) and associated Inuit harvesting success. As shipping of iron ore transitions from the Northern Shipping Route to the Southern Shipping Route, combined and cumulative effects on marine wildlife VCs may change. Ranges of marine wildlife are considered, with recognition that these species may be affected by cumulative stressors beyond the range of the marine RSA.

Approval of SOP2 would mean a continuation of port-based activities and shipping operations at similar levels already being implemented along the Northern Transportation Corridor as part of the Approved Project. Based on feedback from community perspectives and monitoring, Baffinland understands that ore dust dispersion/deposition has the potential to result in adverse effects on marine water and sediment quality (i.e., fish habitat), and shipping/icebreaking can result in underwater noise disturbance of marine mammals that

can negatively affect Inuit marine hunting and harvesting at preferred sites. Working with the QIA and MEWG, Baffinland has made considerable progress in managing effects through enhanced operational procedures and improved monitoring.

Direct effects of the Project on marine water and sediment quality, and by extension fish habitat, are expected to continue under the SOP2 due to ship operations (i.e., propeller wash) and port operations (site discharges, ore dust dispersion/deposition). However, these are predicted to be of low magnitude and limited to the immediate footprint area of the port. Ongoing shipping operations are expected to result in some level of behavioural disturbance of marine mammals along the shipping corridor, however this is anticipated to be limited to temporary, localized avoidance responses at close distances to the ship with animals returning to their normal behaviour shortly following the exposure event. Overall, the residual environmental effects of SOP2 on the Marine Environment VCs are predicted to be of low magnitude and not significant.

Combined and cumulative effects on the Marine Environment VCs are predicted to be not significant. This is primarily due to the geographic extent of effects of the Mary River Project and distance from other projects and activities, resulting in limited overlap of residual effects in space and time. Potential impacts to marine mammals are anticipated to remain limited to temporary, localized avoidance responses at close distances to the ship with animals returning to their normal behaviour shortly following the exposure event. Future development plans associated with the Mary River Project (i.e., mining and development of Deposits No. 2 and 3) will extend the duration of cumulative effects on Marine Environment VCs.

Marine Environment VCs are presently subject to, and will continue to be subjected to, other cumulative stressors occurring beyond the spatial boundaries of the marine RSA include increased harvesting pressure, interaction with commercial fisheries, and climate change effects. Baffinland would be keen to support DFO and/or community-based regional monitoring programs aimed at studying the effects of external environmental factors on Arctic marine mammal populations, including narwhal and ringed seal. Baffinland will continue to engage with the local communities and the responsible agencies (i.e., DFO) regarding these types of regional-based collaborative opportunities.

## 7.5 Human Environment

Human Environment VCs include: Population Demographics; Education and Training; Human Health and Well-being; Community Infrastructure and Public Services; Inuit Culture, Resources and Land Use; Governance and Leadership; Livelihood and Employment; Cultural Well-being; Inuit Travel Route Safety; Economic Development and Self-reliance; Contracting and Business Opportunities; and Benefits, Royalty and Taxation. Most of these VCs were previously assessed for the Approved Project. However, Inuit Travel Route Safety was added as a new VC for the SOP2 FEIS Addendum based on feedback received during the CEA Framework Workshop (February 2024). Previously effects on Inuit travel were assessed in relation to travel and camps under a related VC, Inuit Culture, Resources and Land Use. Another notable change in this SOP2 FEIS Addendum is the inclusion of positive effects in the CEA. Based on feedback received during the CEA Framework Workshop, Baffinland committed to carrying all VCs through the CEA even if only negligible or positive effects were predicted as a result of SOP2.

Approval of SOP2 will mean a continuation of the Approved Project and allow for continued socio-economic benefits to LSA point of hire communities including local employment, infrastructure improvements (e.g., road paving), and social well-being programs. Although residual effects of SOP2 generally represent little to no changes from what was originally assessed and approved for the ERP, SOP2 will allow Baffinland to capitalize on the demand for ore and sustain relationships with existing markets, contributing to the long-term viability of the Project. In addition, SOP2 would allow for Baffinland to continue paying benefits, taxes, royalties and other payments to the GN and QIA for an increased duration of time. When viewed through this lens, SOP2 is predicted to result in considerable positive effects on the Human Environment.

The combined effects of SOP2 with the Approved Project improve the feasibility and long-term viability of the Mary River Project and with the implementation of Baffinland's mitigation and management measures will enhance positive effects on the Human Environment while reducing the magnitude of adverse effects. No significant adverse effects are predicted to occur on Human Environment VCs as a result of SOP2 or combined effects with the Approved Project.

Baffinland understands that potential effects on vegetation and wildlife can affect Inuit food security. Working with QIA, Baffinland has made considerable progress in managing effects through improved monitoring and updating control measures. These improvements will continue in the future with Inuit involvement during the entire process. As a result, negative effects on the Human Environment are predicted to improve and become less significant than currently perceived by community members while positive effects will continue.

Cumulative effects of SOP2 and Approved Project with other projects and activities on the Human Environment are largely predicted to be positive with the implementation of similar social commitments made by other proponents working in the NSA. Future mineral exploration and development by Baffinland will build on existing mitigation and monitoring plans resulting in enhanced social benefits while working with local communities to manage potential adverse effects to acceptable levels.

# 8 INUIT EXPERIENCE WITH THE APPROVED PROJECT

Inuit have experienced change more generally but also as a result of the Mary River Project. Carrying out Inuit rights-based practices where the Mary River Project and its activities can be seen or heard is a different experience than it was before the mine was built. It is acknowledged that not every Inuit experience can be reflected in the SOP2 FEIS Addendum or has been shared with us to date, and the following can only serve as a small sample. Baffinland acknowledges Inuit views, perspectives, knowledge and worldviews are far more complex and diverse than to be treated as one voice. All of these voices are heard, respected and considered.

Inuit have shared feedback on the Project to date through a variety of means. Including in-person meetings to discuss SOP2, and Inuit Knowledge Holder and Community Relation Guides in each of the five North Baffin communities.

Examples of Inuit feedback received to date relate to the following general topics:

- safety of consuming traditional foods in the Project area;
- incorporation of IQ;
- changes to land user experience;
- ability to afford/ access equipment needed to carry out traditional practices;
- ability to afford/ access resources to support themselves and their families;
- ability to participate in on the land learning;
- hunting; and
- concern re vegetation, wildlife and water impacts from dust.

Current frameworks in place to help address Project interactions with Inuit experience include the Nunavut Agreement, Nunavut Impact Review Board processes, and the Inuit Impact and Benefit Agreement (IIBA). To help address effects on rights and culture identified by Inuit, Baffinland has agreed to invest in Inuit-led monitoring programs that are being designed by QIA in close consultation with the Impacted communities (the Inuit Stewardship Plan).

While these framework measures provide tools to address potential Project effects, this summary is not meant to suggest that all effects felt by Inuit from the Approved Project or the Proposal can be mitigated or accommodated, or that any one program will be sufficient to mitigate project effects. Baffinland will continue, throughout the life of the Project, to develop and enhance measures for addressing impacts on Inuit, based on a continual evaluation of the feedback Baffinland and QIA is receiving and adaptive management. Responsible ongoing collaboration with Inuit is essential for the Project's success and sustainability.

# 9 EFFECTS OF THE ENVIRONMENT ON THE PROJECT

Potential effects of the environment on the Project were assessed in the FEIS (Baffinland 2012) and revisited in the ERP FEIS Addendum (Baffinland 2013), the Phase 2 Proposal EIS (Baffinland 2018a) and the SOP FEIS Addendum (Baffinland 2023a). These assessments included consideration of extreme weather, geo-hazards, and global climate change. Effects predictions, and mitigation measures, including design mitigation, maintenance and monitoring activities, remain valid as SOP2 involves sustaining the current nominal rate of 6 Mtpa activity level and does not introduce any new Project infrastructure or activities. Baffinland will continue to monitor and mitigate potential effects of the environment on the Project. Baffinland's Climate Change Strategy focuses on mitigation and adaptation approaches at the Mary River Mine Site. Baffinland remains committed to informing Inuit and Stakeholders on the progress of its efforts in implementing the Climate Change Strategy and ensuring IQ and Inuit perspectives are considered.

# 10 TRANSBOUNDARY EFFECTS

The scope of SOP2 activities is located entirely within the NSA (including the shipping route) and therefore only the resulting zone of influence of Project activities could potentially result in transboundary effects.

Activities that could cause transboundary effects are shipping and activities that generate air emissions. Shipping activities could cause transboundary effects as a result of a fuel spill along the shipping lane, effects on marine mammals, and/or the introduction of invasive species (e.g., through ballast water). All other activities are not a transboundary concern based on the geographical location of the Approved Project and the limited range of any possible or detectable effects. The transboundary effect assessment is therefore based on proximity to the jurisdictional boundary of Greenland and possible long-range effects of shipping activities and contaminant deposition. However, SOP2 does not change the risk of these transboundary effects occurring.

Baffinland acknowledges that GHG emissions are a broad scale transboundary issue for which there is presently no viable alternative in Nunavut. Predicted GHG emissions from Project activities are expected to result in negligible effects on global climate change and the continued production and shipping of 6 Mtpa for SOP2 does not substantively add to the amount of GHGs generated by the Project. GHG emissions from the Mary River Project remain at or below forecasted levels from the ERP (Baffinland 2013) despite an increase in ore haulage. Baffinland remains committed to reducing GHG emissions through its Climate Change Strategy.

Through the implementation of mitigation and monitoring measures intended to reduce or eliminate adverse effects on climate change, migratory birds and habitat, marine habitat and biota, and marine mammals within the Nunavut Settlement Area, the risk of transboundary impacts occurring is very low and effects are predicted to be not significant.

Baffinland agrees to participate in regional government initiatives and programs including federal initiatives aimed at evaluating regional cumulative effects in the Eastern Canadian Arctic.

# 11 ACCIDENTS AND MALFUNCTIONS

Accidents and malfunctions were assessed as part of the Approved Project in the FEIS, and a risk register was developed to identify the potential risks, the likelihood of the accidental event occurring, level of consequence associated with each accidental event, and applicable emergency response plans. This risk register has been reviewed and updated as appropriate. SOP2 does not introduce any new activity, infrastructure or physical footprint not previously assessed in the ERP FEIS Addendum and the identification of potential accidents and malfunctions and the associated consequence, likelihood and risk ratings as presented in the FEIS, ERP FEIS addendum and SOP remain valid. No new mitigation is required for SOP2 to address potential accidents and malfunctions.

# 12 PROJECT OVERSIGHT AND ADAPTIVE MANAGEMENT

Baffinland is subject to multiple layers of project oversight. Since the Mary River Project was first proposed, various government agencies, Designated Inuit Organizations and communities have worked to ensure an appropriate level of project oversight is in place to monitor, mitigate and reduce uncertainty related to the potential effects of the Project. Over time, existing forms of project oversight have been strengthened through subsequent NIRB processes and agreements reached since that time. Others have been added through mutual agreement with key parties like the QIA. Amendments made to the IIBA and Water Compensation Agreement in 2023 address new Project oversight mechanisms, including the Adaptive Management Plan, Inuit Stewardship Plan, Pond Inlet Country Food Baseline Report, Culture, Resources and Land Use Assessment, North Baffin Caribou Assessment and Measurable Objectives.

Baffinland recognizes that with any environmental effects assessment, some level of uncertainty in effects predictions cannot be resolved before the Project is permitted to operate. A precautionary approach to managing the Mary River Project inclusive of Baffinland's Adaptive Management Plan acknowledges uncertainties exist while developing systems and approaches for responding to changing conditions, with the goal of avoiding adverse effects by taking action before these occur or, at minimum, responding quickly and meaningfully to observed changes that may be partially to wholly attributable to the Project. A key part of Baffinland's approach to adaptive management is incorporation of community review and feedback; particularly, the incorporation of IQ to improve or extend the effectiveness of the Environmental Management System for the Project.

# 13 CONCLUSIONS

The existing detailed and comprehensive effects monitoring, mitigation and management requirements of the Project Certificate (including the Appendix B commitments), developed through the ERP in 2014 and the PIP Amendments since 2018 will apply to the continuation of current activities under SOP2. Taking these requirements into consideration, there are no new predicted changes to the potential for ecosystemic or socio-economic effects associated with continued operations under SOP2. Given that the Approved Project under the current Project Certificate already allows 6 Mtpa Northern Transportation Corridor levels for a defined time period, SOP2 represents only a temporal extension of currently approved activities and accordingly, an extension of the duration of effects.

Combined effects of the continuation of the current approved 6 Mtpa rate through the Northern Transportation Corridor, which have been in place since 2018, and the construction and operation of the Steensby Components of the Approved Project have been assessed in consideration of the potential spatial and temporal overlap. However, both the spatial and temporal overlap of activities will be limited[8] and so potential for increased adverse effects will be low. Baffinland's decision to retire the use of the Northern Transportation Corridor for trucking and shipping iron ore once the Southern Transportation Corridor achieves commercial transportation rates is mitigation by avoidance, the strongest of mitigation options that will significantly reduce both the potential combined and cumulative effects of the Project.

Cumulative effects of SOP2 and Approved Project with other projects and activities are predicted to be not significant for all VCs, although it is recognized that climate change could have a major disruptive effect on several biological VCs (Table ES-1). For many Human Environment VCs, positive cumulative effects are predicted. See table ES.1 for a summary of residual effects and associated mitigation and monitoring programs. For details of how we approached significance determinations, taking into account standard applicable environmental assessment methodology and Inuit feedback, see section 6.10 of the SOP2 FEIS Addendum.

A near-term initiative that will enhance the ability of communities to identify and propose responses to potential cumulative and other effects will occur through the QIA's Inuit Stewardship Plan, which includes the completion of multiple Inuit led reports and studies, which will help establish the scope and contents of a CRLU Monitoring Program. Baffinland also agrees to participate in regional government initiatives and programs including federal initiatives aimed at evaluating regional cumulative effects in the Eastern Canadian Arctic.

[8] Up to 90 days for ore haulage on the Tote Road, and up to two seasons to evacuate iron ore stored on pads at Milne Port at the time the Steensby Railway achieves CTA.

Sustaining the 6 Mtpa Northern Transportation Corridor permitted limits until the Steensby Railway is in place and achieves commercial transportation rates will allow Baffinland to sustain relationships with existing markets, thus capitalizing on the current demand for ore, which will contribute to the long-term viability of the Project and help prevent temporary or early closure of the Project.

The overall conclusion of the SOP2 FEIS Addendum is that with the implementation of proposed management measures, SOP2 can be implemented in a manner that will safeguard the environment, adjust as needed to changes in the environment and community experience as needed, and provide consistency for the company and most importantly those benefiting from the operation of the Project in the North Baffin region, Nunavut and to a larger extent, Canada.

**Table ES.1: Summary of Residual Effects of SOP2**

| VC | Potential Effects of SOP2 | Key Mitigation and Monitoring | Predicted Residual Effects of SOP2 |
|---|---|---|---|
| **Atmospheric Environment** | | | |
| Climate Change | • Increased GHG emissions<br>• Climate change | • Arctic grade diesel fuel<br>• Mitigations described in the Climate Change Strategy (2019)<br>• Revised Climate Change Strategy, inclusive of multi-year energy use and GHG emissions targets | • Continued GHG emissions contributing to climate change<br>• Effects are predicted to be low magnitude and continuous and likely to occur over the duration of SOP2 |
| Air Quality | • Increased concentrations of:<br>  ○ TSP, sulphur dioxide ($SO_2$), nitrogen dioxide ($NO_2$), and carbon monoxide (CO)<br>• Increased deposition of:<br>  ○ Dust, potential acid input (PAI) | • Apply best management practices for limiting air emissions<br>• Use of low sulphur Arctic grade diesel fuel<br>• Limit speed on roads<br>• Apply dust suppressant as required in high traffic areas and stockpiles, in accordance with manufacturer's instructions<br>• Procurement policy on emissions from equipment (incinerator, generators, vehicles)<br>• Waste segregation (incineration)<br>• Regular maintenance of equipment and vehicles<br>• Resource QIA to establish Inuit-led dustfall monitoring, while expanding community monitoring programs for dust<br>• Establish site-specific thresholds and additional mitigation(s) for dust if the threshold is exceeded<br>• Minimize drop distances for material handling and stockpiling<br>• Provide updates on the feasibility of wind fencing at Milne Port<br>• Consider implementation of the dust mitigation measures proposed by the Dust Audit Committee | • Continued emissions of TSP, $SO_2$, $NO_2$ and CO<br>• Continued deposition of dust<br>• Effects are predicted to be moderate magnitude, confined to the LSAs, continuous, likely to occur over the duration of SOP2 and reversible once SOP2 activities cease |

| VC | Potential Effects of SOP2 | Key Mitigation and Monitoring | Predicted Residual Effects of SOP2 |
|---|---|---|---|
| Noise and Vibration | • Sensory impact on wildlife | • Procurement policy for noise for equipment and vehicles<br>• Use of mufflers – regular maintenance of engines and equipment | • Continued noise and vibration<br>• Effects are predicted to be low magnitude, confined to the LSAs, continuous, likely to occur over the duration of SOP2 and reversible once SOP2 activities cease |
| **Terrestrial Environment** | | | |
| Ground/Permafrost Stability | N/A | N/A | N/A |
| Snow Quality | • Dustfall on snow | • Dustfall management, as identified in the AQNAMP | • Reduced snow quality in areas affected by dust and emissions deposition |
| Vegetation Quality | • Loss of vegetation abundance and diversity<br>• Reduced Vegetation health<br>• Effects on culturally valued vegetation | • Limit footprint to the PDA<br>• Implementing dust management measures | • Loss of vegetation within the PDA (the project footprint and adjacent areas from concentrated dust deposition<br>• Reduced palatability of culturally valued vegetation consumed adjacent to the PDA in areas affected by dust and emissions deposition |
| Birds and Bird Habitat | • Habitat loss<br>• Health<br>• Mortality risk | • New disturbance to habitat outside of the bird breeding season where possible<br>• Active Migratory Bird Nest Surveys where clearing must occur during the nesting season<br>• Helicopter overflight guidelines to reduce disturbance, and avoid the goose area south and west of the Mine. | • Bird habitat loss within the PDA and reduced habitat effectiveness in areas adjacent to the PDA |
| Terrestrial Wildlife and Wildlife Habitat | • Habitat loss<br>• Movement<br>• Health<br>• Mortality risk | • Wildlife signage and awareness training<br>• Wildlife sighting reporting and right-of-way policy on project roads<br>• No hunting by Project personnel<br>• Blasting restrictions<br>• Helicopter operation restrictions, avoid low-level flights over animals. | • Prolonged Zone of Influence associated with sensory disturbances from continued ore haul and other Project-related Tote Road traffic<br>• Persisting mortality risk associated with potential vehicle/wildlife collisions as traffic continues using the Tote Road |

| VC | Potential Effects of SOP2 | Key Mitigation and Monitoring | Predicted Residual Effects of SOP2 |
|---|---|---|---|
| Caribou | • Habitat loss<br>• Movement<br>• Health<br>• Mortality risk | • Avoid active calving sites<br>• Restrict activities within 3 km of female sightings where possible (as described in the TEMMP)<br>• Snowbank height restrictions along Tote Road<br>• Caribou Decision Tree to manage Tote Road traffic | • Prolonged Zone of Influence making less effective habitat adjacent to the Tote Road associated with sensory disturbances from continued ore haul and other Project-related Tote Road traffic<br>• Persisting reluctance to cross the Tote Road with frequent ore haul truck traffic<br>• Persisting mortality risk associated with potential vehicle/wildlife collisions as traffic continues using the Tote Road |
| **Freshwater Environment** | | | |
| Freshwater Quantity and Quality | • Changes in water quality due to point-source, non point-source and airborne emissions | • Implementation of dust control measures<br>• Mitigation outlined in<br>  ○ Surface Water and Aquatic Ecosystems Management Plan<br>  ○ Freshwater Supply, Sewage and Wastewater Management Plan<br>  ○ Air Quality and Noise Abatement Management Plan<br>• Mitigation through monitoring and adaptive management as described in the Aquatic Effects Monitoring Program (component and related studies).<br>• Implementation of and updates to the Tote Road and Tote Road Fish Habitat Monitoring Programs<br>• Includes siting of facilities/quarries at least 30 m from stream or water body and implementing best management practices to prevent discharge of contaminants. | • Changes in water quality based on continued point-source, non point-source, and airborne emissions are moderately likely and predicted to be of low to moderate magnitude, confined to the LSAs, occurring frequently for the duration of SOP2, and reversible once SOP2 activities cease. |

| VC | Potential Effects of SOP2 | Key Mitigation and Monitoring | Predicted Residual Effects of SOP2 |
|---|---|---|---|
| Freshwater Biota and Habitat | • Effects on freshwater biota health due to changes in water and/or sediment quality<br>• Effects on freshwater biota habitat quality due to changes in water and/or sediment quality and physical effects on habitat at water crossings. | • Implementation of dust control measures<br>• Mitigation outlined in<br>○ Surface Water and Aquatic Ecosystems Management Plan<br>○ Freshwater Supply, Sewage and Wastewater Management Plan<br>○ Air Quality and Noise Abatement Management Plan<br>• Mitigation through monitoring and adaptive management as described in the Aquatic Effects Monitoring Program (component and related studies).<br>• Additional monitoring at tributaries to Phillips Creek along Tote Road<br>• Add parameters to Tote Road Monitoring Program<br>• Implementation of and updates to the Tote Road and Tote Road Fish Habitat Monitoring Programs | • Changes in freshwater biota health due to changes in water and/or sediment quality are moderately likely, predicted to be of moderate magnitude, confined to the LSAs, occurring frequently for the duration of SOP2, and reversible once SOP2 activities cease.<br>• Changes in freshwater habitat quality due to changes in water and/or sediment quality are moderately likely, predicted to be low to moderate magnitude, confined to the LSAs, occurring frequently for the duration of SOP2, and reversible once SOP2 activities cease.<br>• Changes in freshwater habitat quality due to physical effects at water crossings are likely and predicted to be low magnitude, confined to the LSAs, infrequent for the duration of SOP2, and reversible once SOP2 activities cease. |
| Arctic Char | • Effects on Arctic char health due to changes in water and/or sediment quality<br>• Effects on Arctic char habitat quality due to changes in water and/or sediment quality and physical effects on habitat at water crossings.<br>• Direct mortality of Arctic char due to effects of sediment accumulation on egg incubation success | • Implementation of dust control measures<br>• Mitigation outlined in<br>○ Surface Water and Aquatic Ecosystems Management Plan<br>○ Freshwater Supply, Sewage and Wastewater Management Plan<br>• Mitigation through monitoring and adaptive management as described in the Aquatic Effects Monitoring Program (component and related studies).<br>• Updated lake sedimentation rate threshold triggering response actions for impacts on incubating Arctic Char eggs.<br>• Implementation of and updates to the Tote Road and Tote Road Fish Habitat Monitoring Program | • Changes in Arctic char health due to changes in water and/or sediment quality are moderately likely and predicted to be moderate magnitude, confined to the LSAs, occurring frequently over the duration of SOP2, and be reversible once SOP2 activities cease.<br>• Changes in Arctic char habitat quality due to changes in water and/or sediment quality are moderately likely and predicted to be low to moderate magnitude, confined to the LSAs, occurring frequently for the duration of SOP2, and be reversible once SOP2 activities cease.<br>• Changes in Arctic char habitat quality due to potential physical effects at water crossings are likely and predicted to be low magnitude, confined to the LSAs, infrequent for the duration of SOP2, and reversible once SOP2 activities cease.<br>• Direct mortality of Arctic char due to effects of sediment accumulation on egg incubation success is predicated to be negligible (i.e., no residual effect). |

| VC | Potential Effects of SOP2 | Key Mitigation and Monitoring | Predicted Residual Effects of SOP2 |
|---|---|---|---|
| **Marine Environment** | | | |
| Sea Ice | None | N/A | None |
| Marine Water and Sediment Quality | • Changes in marine water and sediment quality in Milne Inlet due to propeller wash, effluent discharge, and ore dust dispersion and deposition in the marine environment | • As outlined in the SMWMP and BWMP<br>• All discharges of wastewater, oiled water, and contact water will be treated to meet the respective guidelines and to reduce TSS prior to discharge<br>• Site runoff water management as per management plan<br>• Hazardous substances contained within impermeable areas as per Waste Management Plan<br>• Sewage treatment and wastewater treatment plant (oily water, truck wash, maintenance facilities, explosives equipment wash water)<br>• Emergency and Spill Response Plan, Milne Port OPEP; SOPEP for all ships<br>• Ship on-board waste management - no discharge at sea | • Changes in marine water and sediment quality in Milne Inlet due to propeller wash, effluent discharge, and ore dust dispersion and deposition in the marine environment |
| Marine Habitat and Biota<br><br>Anadromous Artic Char | • Loss or alteration of marine habitat due to shipping (propeller wash) and port operations (effluent discharge, ore dust dispersion/deposition)<br>• Decreased fish health due to alteration of fish habitat (i.e., altered marine water and sediment quality) due to shipping (propeller wash) and port operations (effluent discharge, ore dust dispersion/deposition)<br>• Change in benthic community structure due to NIS/AIS introductions from ballast water discharge or ship hull biofouling | • As outlined in SMWMP<br>• Ore carriers with D-2 ballast water treatment systems (87% of all carriers in 2022) shall complete both a ballast water exchange and treatment prior to releasing ballast water<br>• Redesigning the ore pads to position fines in the center and lump ore around the margins<br>• Proper positioning of the conveyors to minimize ore drop distances when stockpiling<br>• Installation of rubber bellows at the end of each stacker to minimize dispersion of dust generated during the fall<br>• Installation of chutes on the shiploader to prevent windblown dust during loading operations<br>• Installation of shrouding at the discharge end of the ore stackers to reduce the effect of windblown dust during stacking activities<br>• Installation of downwind fencing | • Loss or alteration of marine habitat due to shipping (propeller wash) and port operations (effluent discharge, ore dust dispersion/deposition)<br>• Decreased fish health due to alteration of fish habitat (i.e., altered marine water and sediment quality) due to shipping (propeller wash) and port operations (effluent discharge, ore dust dispersion/deposition)<br>• Change in benthic community structure due to NIS/AIS introductions from ballast water discharge or ship hull biofouling |

| VC | Potential Effects of SOP2 | Key Mitigation and Monitoring | Predicted Residual Effects of SOP2 |
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| | | • Removal of dust impacted snow at strategic locations at the project.<br>• Application of a specialized crusting agent (e.g., DusTreat®) to the ore stockpile to reduce wind erosion and mobilization of fine iron ore particles. | |
| Marine Mammals<br><br>Narwhal<br><br>Ringed Seal<br><br>Walrus | • Potential behavioural disturbance caused by airborne and/or underwater noise from shipping<br>• Potential acoustic masking of environmental sounds caused by underwater noise from shipping<br>• Potential injury and/or mortality from collisions with vessels | • Subject to vessel and human safety considerations, all project shipping shall adhere to the following mitigation procedures while in the vicinity of marine mammals:<br>• Ships will maintain a straight course and constant speed when possible, avoiding erratic behavior.<br>• When marine mammals appear to be trapped or disturbed by vessel movements, the vessel will implement appropriate measures to mitigate disturbance, including stoppage of movement until wildlife have moved away from the immediate area (as safe navigation allows).<br>• All Project vessels will be provided with standard instructions to operate their vessel in a manner that avoids separating an individual member(s) of a group of marine mammals from other members of the group.<br>• All Project vessels will be provided with standard instructions to not approach within 300 m of a walrus or polar bear observed on sea ice.<br>• Vessels awaiting instructions from the Port Captain to enter the RSA will be instructed to wait in Baffin Bay at least 40 km east of the Nunavut Settlement Area.<br>• All Project vessels will travel at a maximum speed of 9 knots when transiting through Eclipse Sound and Milne Inlet.<br>• Vessels will minimize idling of engines when docked at Milne Port. | • Potential behavioural disturbance caused by airborne and/or underwater noise from shipping<br>• Potential acoustic masking of environmental sounds caused by underwater noise from shipping<br>• Potential injury and/or mortality from collisions with vessels |

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| | | • Use of convoys throughout the season to further reduce total sound exposure. Acoustic monitoring data indicates that if the ore carriers travel in convoy formation with an inter-vessel separation of less than 10 km, there is an overall reduction of the total sound exposure in the RSA compared to multiple individual transits of an equivalent number of vessels. Slight increases of instantaneous sound levels in the regions between the vessels are compensated for by shorter overall exposure duration, resulting in a net decrease of noise exposure. The use of convoying will be similar in effect to reducing the overall number of ships.<br>• No breaking of landfast ice will occur in the spring or fall shoulder season.<br>• No icebreaking during the early shoulder season.<br>• Shipping will not commence until a continuous path of 3/10ths or less ice concentrations is available along the entire shipping route between the entrance of Eclipse Sound and Milne Port.<br>• Baffinland will plan for and cease all shipping from Milne Port by October 31.<br>• Baffinland may proceed with a variance to this condition, or under exceptional circumstances that may occur from time to time, seek an exception to this condition. | |

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| **Human Environment** | | | |
| Population Demographics | None | None | None |
| Education and Training | • Improved life skills<br>• Incentives related to school attendance and success<br>• Opportunities to gain new skills through continued education and training opportunities | • Education and training program | • Continued opportunities for education and training of LSA residents.<br>• Continued provision of incentives related to school attendance and success. |
| Livelihood and Employment | • Creation of jobs in the LSA.<br>• Employment of LSA community residents.<br>• Expanded employment and career development options. | • LSA points of hire<br>• Recruitment strategy<br>• Inuit hiring policy<br>• Management commitment | • Continued employment of LSA community residents, creation of jobs, and expanded employment and career development options. |
| Contracting and Business Opportunities | • Local contracting and business opportunities | • Inuit contracting strategy<br>• Cooperation with QIA to build Inuit capacity<br>• Establish a fund to support and build capacity<br>• Management assistance to Inuit designated firms<br>• Opportunities for local entrepreneurs to work with Project | • Sustained relationships with existing markets.<br>• Continued contracting and business opportunities.<br>• Continued support for entrepreneurial capacity development for Inuit Firms (e.g., Business Capacity and Start-Up Fund through the Kakivak Association, Inuit Firm workshops, etc.) |
| Economic Development and Self-Reliance | • Continued changes to human engagement in land-based economy<br>• Increased opportunities for youth<br>• Improved education and training<br>• Increased wealth and well-being<br>• Expansion of local business opportunities<br>• Local and regional infrastructure development | • Inuit recruitment strategy<br>• Community support fund<br>• Employee and family assistance program<br>• Financial support for Pond Inlet Regional Training Centre | • Continued utilization of land, VC-related residual effects, harvesting and travel residual effects.<br>• Continued opportunities for youth, increased wealth, and economic activity.<br>• Continued positive effects on human resource development through training and employment.<br>• Continued expansion of local business opportunities.<br>• See residual effects identified for Inuit Culture, Resources, and Land Use, Inuit Travel Route Safety, Community Infrastructure and Public Services, Human Health and Well-being, and Cultural Well-being. |

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|---|---|---|---|
| Benefits, Royalty and Taxation | • Continued payments to governments and Designated Inuit Organizations | None | • Continued payments to governments and Designated Inuit Organizations through benefits, royalties, taxes, and other payments. |
| Community Infrastructure and Public Services | • Labour force capacity | • Early start for skills training<br>• On-going training<br>• Employment experience<br>• Financial support for Pond Inlet Regional Training Centre | • Continued expansion of labour force capacity from Project-related training and job experience. |
| Human Health and Well-being | • Increased household income and food security<br>• Increased ability to afford housing (specifically, home ownership) as a result of increased household income<br>• Community instability<br>• Potential for increased substance-use due to increased incomes | • Employee and Family Assistance Program<br>• Orientation and training related to fly-in/fly-out adaptation, health, well-being<br>• Potential promotion of housing-related resources and programming<br>• Drugs and alcohol policies<br>• Fund a Pond Inlet Country Food Baseline Report, and integration of results into monitoring programs, annual reports, and adaptive management plans | • As described in Section 11.2.3, increased income can result in positive effects on food security, through increased financial support for country foods harvesting and/or purchase of non-country foods. Effect of increased household income on food security is not predicted to change in characterization except for an increase in duration.<br>• As described in Sections 11.1.8 and 11.2.8, home ownership is associated with increased positive physical and mental health status. The effect of increased household income from the Project is predicted to continue, resulting in positive effects to human health and well-being through increased access to homeownership.<br>• Continued effects to community stability through worker absence from the community during rotational shifts.<br>• Continued provision of employment income which could facilitate increased substance-use due to increased income.<br>• Continued effects on community stability are not predicted to change in characterization except for an increase in duration. |

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| Inuit Culture, Resources and Land Use | • Interruption to and/or increased level of effort required for travel and hunting<br>• Change in knowledge sharing<br>• Change to sense of place<br>• Changes in fish harvesting<br>• Change in land and water use due to dust on snow | • Measures to mitigate VC effects<br>• Hunter and Visitor Site Access procedure<br>• Wildlife Compensation Fund<br>• Harvesters Enabling Program<br>• New Mitigation<br>• Fund a Culture, Resource Land Use Assessment<br>• Review and address the working and efficacy of the administration of the Wildlife Compensation Fund | • Continued interruptions to travel routes, camping sites and harvesting areas.<br>• Continued interruption to and/or increased level of effort required for travel and hunting.<br>• Continued potential for changes to knowledge sharing and sense of place.<br>• Continued changes to terrestrial, marine, and freshwater wildlife distribution, abundance and quality due to the residual effects discussed in Section 8.5.<br>• Continued change in land and water use due to dust based on the assessment made in Section 7, which predicts moderate continued deposition of dust. No change in characterization predicted beyond increased duration. |
| Inuit Travel Route Safety | • Safety risks along Inuit travel routes intersecting with Project activities | • Travel escorts and restrictions to unescorted travelling<br>• Wildlife Compensation Fund<br>• Community engagement on shipping activities and over-ice/boat travel safety | • Continued potential for safety risks along Inuit travel routes intersecting with Project activities, no change in characterization of effects beyond increased duration. |
| Cultural Well-being | • Opportunities to practice cultural activities (hunting, Inuit games, consumption of country foods etc.) while on-site<br>• Opportunities to use Inuktitut on-site<br>• Opportunities to participate in environmental monitoring (Avatittinnik Kamatsiarniq – Respect and care for the land, animals and the environment.)<br>• Changes to sense of cultural well-being from the potential effects identified for Inuit Culture, Resources, and Land Use | • Measures to support Inuit culture on site, including Inuktitut language plan<br>• Inuit priority for employment<br>• Inuit involvement in environmental monitoring | • Continued opportunities to practice cultural activities and use Inuktitut on-site.<br>• Continued opportunities to participate in environmental monitoring.<br>• Continued potential for changes to sense of cultural well-being from the residual effects identified for Inuit Culture, Resources, and Land Use.<br>• Continued potential changes to ability to practice cultural activities as a community due to rotational work schedule and the nature of working at a mine site away from family and community.<br>• Effects are predicted to be variable, but largely positive. |

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| | • Including change in knowledge sharing (Pilnimmaksarniq – Development of skills through observation, mentoring, practice, and effort.) and sense of place<br>• Changes to ability to practice cultural activities as a community due to rotational work schedule and working at the mine site away from family and community (Pijitsirniq – Serving and providing for family and/or community.) | | |
| Governance and Leadership | None | None | None |