Mary River Project

Project Update

FINAL REPORT

November 30, 2016

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1 INTRODUCTION

In October 2014, Baffinland Iron Mines Corporation (Baffinland) submitted to the Nunavut Impact Review Board (NIRB) the Mary River Project Phase 2 Second Amendment to Project Certificate Number 005 Project Description.

Since that time, Baffinland has conducted extensive community consultations and has gained over two years of operational experience. These inputs and insights have provided an enhanced understanding of Project requirements, operational realities and constraints, and stakeholder concerns and perspectives, and thus, an enhanced ability to improve and optimize the planning and development of the next phase of the Project.

On October 28, 2016 the NIRB wrote to Baffinland requesting further information and clarification regarding the current nature and scope of its Phase 2 proposal for the Mary River Project. This included a request for:

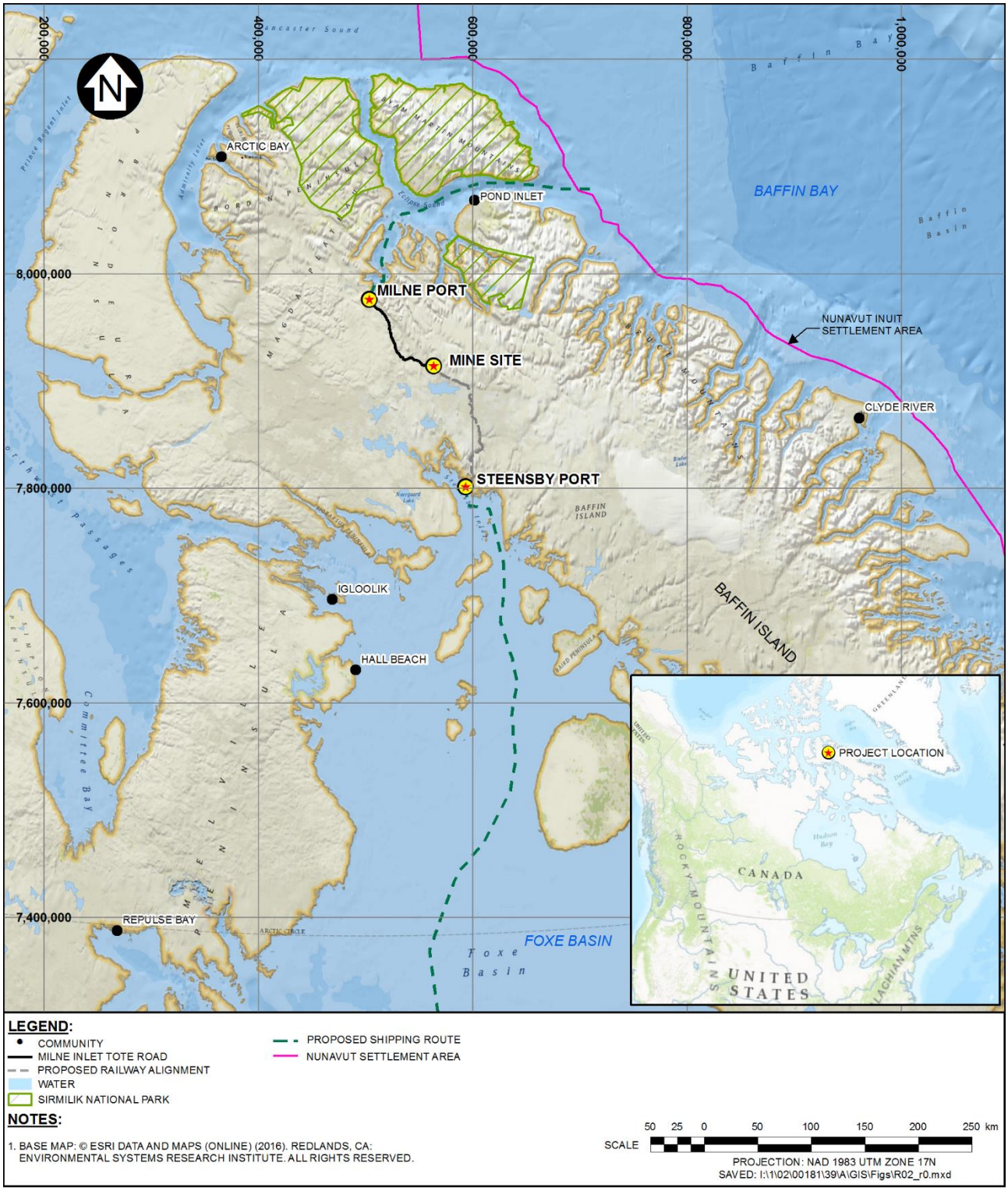
> *[T]he following additional information regarding the rail component Baffinland now proposes to include in the Phase 2 Proposal as the preferred alternative for land-based transportation of ore:*
>
> *1) The proposed location, scale and extent of the railway and ancillary works;*
>
> *2) The basis for Baffinland's conclusion that there is a need for the rail component;*
>
> *3) The basis for Baffinland's selection of the rail component as the preferred alternative; and,*
>
> *4) An overview of the extent to which the rail component may interact with, have effects on and/or require changes to existing or proposed project infrastructure (for example changes to the Milne Inlet port site, changes to project development, staging or timing, etc.).*

The purpose of this Project Update is to address this information request from the NIRB, and in doing so, to provide an overview of the current Phase 2 development proposal, as well as the rationale for and benefits of these planned refinements, and the implications of same for relevant planning and regulatory processes and requirements in the region.

This document is organized as follows:

1) Proposed Rail Component;
2) Basis for Selection of Rail;
3) Interaction of Rail with Existing or Proposed Infrastructure;
4) Consultation and Regulatory Considerations; and
5) Summary and Conclusion

Figure 1.1 The Mary River Project



2 PROPOSED RAIL COMPONENT

Baffinland's proposed optimizations to the Phase 2 development will include:

1) Construction of the Northern Railway within the Northern Transportation Corridor; and

2) Construction of related loading and unloading infrastructure at the Mine Site and at Milne Port.

The new proposed rail line within the Northern Transportation Corridor will be approximately 110 km in length and generally follows the routing of the existing Tote Road (Figures 2.1 and 2.2), moving away only where required due to terrain and other technical considerations. The development of the railway will include a number of associated components and activities, including:

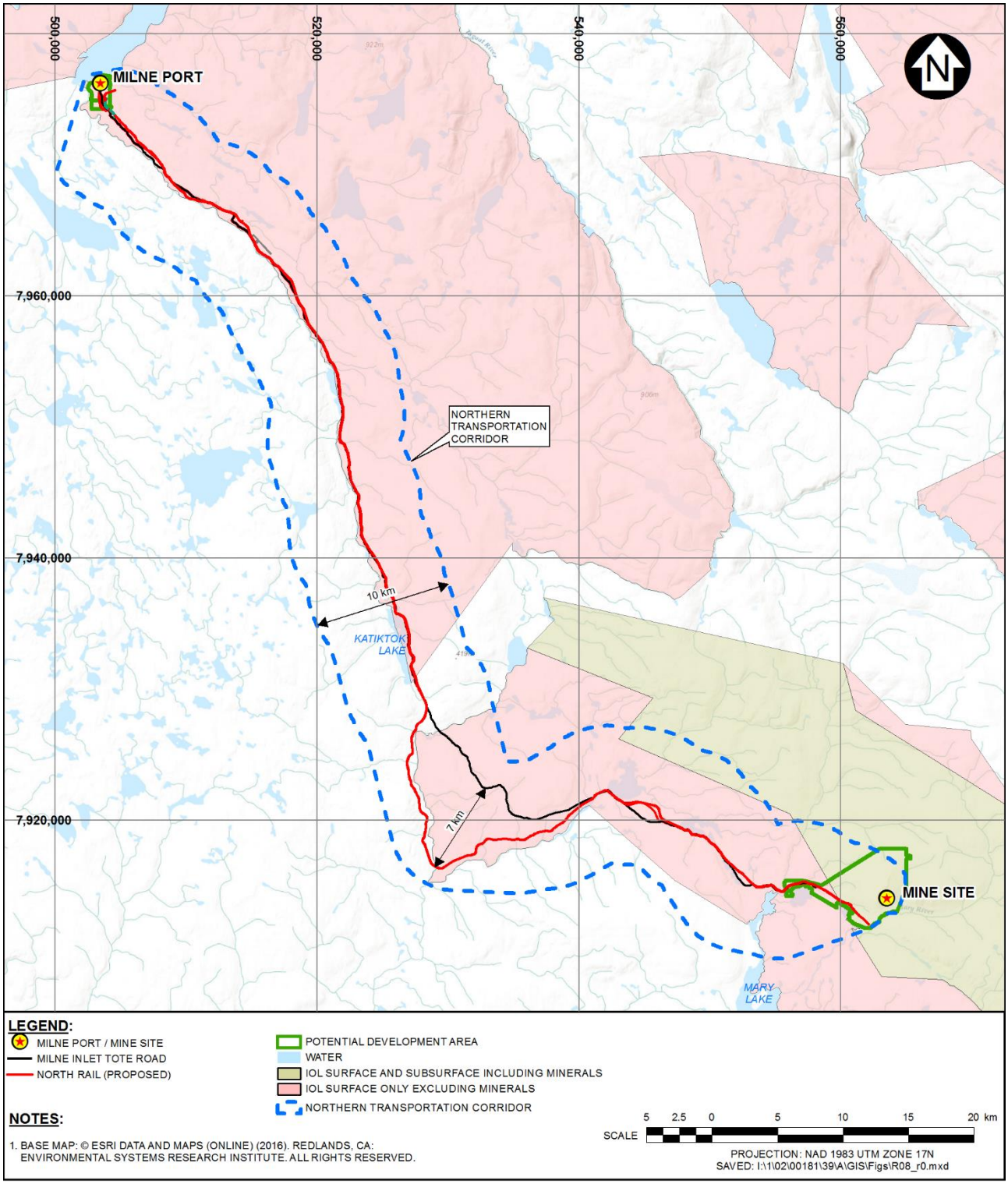
- The installation of railway embankment and track, comprised of sub-ballast and ballast materials, with ties and steel rails;
- Establishment of bridges and railway sidings at several locations;
- Locomotives, ore rail cars, fuel cars and freight cars;
- The development of bungalows, or small sheds containing power switching systems;
- Communication towers (estimated up to 15 structures);
- Terminals with ore and freight loading / unloading facilities at the Mine Site and Milne Port; and
- A railway maintenance workshop and yard at Milne Port.

The required railway fleet is estimated at approximately five locomotives and 176 cars. In order to support the planned 12 million tonnes per annum (Mtpa) rate of mine production, it is expected that the rail operations will consist of two train sets, each consisting of two diesel-electric heavy haul locomotives hauling between 72 and 80 open top ore cars. The locomotives themselves are approximately 23 m long, weigh 190 tonnes and are powered with AC diesel generators, as well as other equipment and control systems that are suitable for the cold climate.

The design speed for the railway will be a maximum of 75 km/h, and the initial maximum operating speed is expected to be 60 km/h or less. Ore trains will not operate on the same section of track simultaneously. Safety systems will assist in the detection of any malfunctioning railway rolling stock or rails. A rigorous schedule of inspections and maintenance for all railway equipment and infrastructure will be implemented. Loaded trains will be subject to a visual safety inspection at the start of every trip, and locomotives and cars will be subject to regular inspection and maintenance as required. Regular train schedules will be generally sufficient for keeping the main line free of snow. Remote switches at sidings will be provided with snow blowers to prevent the switch points from becoming blocked, and track maintenance equipment will "broom" turnouts in yards. Sites identified during early operations as susceptible to drifting may be protected with snow fencing and will be subject to regular observation by the track maintenance crews.

Figure 2.1 Existing Northern Transportation Corridor (Tote Road)

Figure 2.2 The Northern Transportation Corridor and Planned Railway



3 BASIS FOR SELECTION

Phase 2 as currently planned involves a number of refinements and optimizations to the October 2014 Project Description submission to the NIRB, including:

1) The construction and operation of a railway extending north from the Mine Site to the Milne Port facility, and the eventual transportation of the produced iron ore along that railway (as described in the preceding section);

2) Optimizing ore shipments during ice free / open water periods with the option to undertake shipping activity between July 01 and December 31 and winter re-supply with an ice-breaker, if required, and;

3) The removal of the previously planned trans-shipping components and activities.

These refinements represent key aspects of Baffinland's planned continuation and future development of the Mary River Project, and are fundamental and essential to the continued viability, future growth and sustainability of the Project as a whole.

The following sections describe the rationale for and benefits of these proposed optimizations to the Phase 2 development, including the planned construction and operation of the Northern Railway (as described earlier in Section 2.0) and other refinements to the development as summarized above and described in further detail in Section 4.0 of this document.

3.1 Consultation

As part of its development and continuing operation of the Mary River Project, Baffinland has conducted extensive consultation with interested and potentially affected stakeholders, including the five North Baffin Inuit Communities and the Qikiqtani Inuit Association (QIA), applicable regulatory agencies and the general public. This has included the continual provision of information and receipt of stakeholder input through Baffinland Community Liaison Officers, public meetings and open houses, community and employee surveys, focus groups, workshops, site visits, meetings with individual groups, participation in multi-stakeholder forums, and the distribution of Project information through websites, newsletters, advertisements and other means (see Section 5.1).

Baffinland's consultation program has included considerable engagement related to the Phase 2 development, including the associated identification and discussion of any questions or concerns on the part of consultation participants regarding the proposal and its potential effects. Through these initiatives, Baffinland has become aware of a number of issues which are relevant to the planning and eventual implementation of this next stage of the Project, which participants have asked Baffinland to consider and attempt to address as it moves forward. These include:

- The need to optimize and sustain the important economic and social benefits of the Project over the long-term, including employment and business opportunities for local individuals and businesses;

- Concerns about the air emissions and dust generated by the on-going (and potentially increased) use of the Tote Road to transport ore by truck to the Milne Port site, and the possibility of wildlife injury, mortalities or other such interactions and disturbances; and

- Concerns about potential winter shipping and ice breaking, including concerns around the possible effects of this activity on the marine environment (including marine mammals) and on Inuit land use activities and travel routes.

As described in the sections that follow, the planned optimizations to the Phase 2 proposal described herein have been informed and guided by the views and perspectives raised during Baffinland's on-going regulatory, community and stakeholder engagement initiatives, and reflect its desire to address the various questions and concerns raised in a proactive manner in the planning, design and eventual implementation of this next phase of the Project.

3.2 Economic and Social

Development activities at the Mary River Project have been on-going since May 2013, and the Project has been operating since early 2015. The Early Revenue Phase (ERP) amendment to Project Certificate 005 permits a total of 4.2 Mtpa production. Under recent market conditions with low iron ore prices, this level of production has proved to be insufficient to generate sustained positive cash flow from operations. Nevertheless, Baffinland's shareholders have continued to invest in the Project to fund its working capital requirements, as well as to grow its shipment capacity to the currently permitted annual shipment limit of 4.2 Mtpa.

The Project through its early development has been an important economic driver in Nunavut, creating significant employment and business activities throughout its construction and operations phases. Through these direct and spin-off employment and business benefits and associated taxation revenues, the Project has been and remains a vital component of the current socioeconomic structure of the area, and has made significant economic contributions at the community, regional, territorial and national scales.

Baffinland believes strongly that to insulate the Project from extended low price environments and to generate necessary returns to justify continued investments, the Project needs to expand further to a level of 12 Mtpa with a lower cost rail transport to port.

The proposed development activities described herein represent an important next step for the Project, and it is key to the progressive and staged approach to its overall development that Baffinland has adopted. The development will directly affect the lives of residents of Nunavut and elsewhere by creating important construction-related employment and business opportunities and associated economic benefits, as well as increasing the overall scale and operational lifespan of the Project, and in doing so, extending and sustaining the important employment opportunities, skills development and work experience, and business opportunities that are resulting from this Project. These direct economic benefits will be further supplemented by indirect employment and business opportunities and resulting incomes and revenues resulting from Project construction and its long-term operations, as well as additional induced effects with the spending of personal and business incomes which in turn generate additional economic benefits through the overall economy. These long-term income-earning and business opportunities can help bring overall economic prosperity and security to workers and business owners in the area, with resulting, positive effects on the overall quality of life. Other socioeconomic

effects include those associated with increased revenues to local, regional, territorial and federal governments as a result of taxation, which can lead to additional investments and improvements in local services and infrastructure.

Notwithstanding these on-going and future economic benefits, there is also a strong imperative for the Project itself to grow as a means of achieving overall economic feasibility and long-term sustainability. The ERP has demonstrated the overall technical viability of the operation, allowed for the establishment of key infrastructure, and provided Baffinland and its workforce and suppliers with key lessons and insights to guide future Project activities. Larger production rates are, however, required to generate the necessary cash flows for the continuation and on-going development of the Project.

In general, iron ore production and its associated commodity markets is a high volume and typically low margin activity, and lower production tonnages generally result in relatively high production costs per tonne, and thus, limited return on invested capital. Moreover, the ability to provide buyers with a large scale and reliable ore supply are prerequisites to securing long-term supply contracts and successfully competing on world markets. The industry is extremely competitive, as there are many producers worldwide, many of whom are operating at a relatively high rate of production (typically in the range of 25 to 300 Mtpa), are able to ship to markets year round, and have considerably lower operating costs and less challenges than northern developments such as this Project.

Although the iron ore resources of the North Baffin Region are plentiful and of very high quality, the Mary River Project itself faces a number of key challenges including the lack of existing infrastructure, extreme climatic conditions, permafrost, difficulty of access during the ice covered period, and other technical, economic and logistical issues and considerations. After several years of ERP operations, the Project has reached a point where an increased level of production and revenue is required to reach the associated economy of scale necessary to sustain the Project's current levels of activity and investments, to secure adequate markets for its products, and thus, to facilitate its on-going operation and future growth. The components and activities described herein comprise the next stage of this development, and will allow the Project to continue to move toward the eventual 30 Mtpa production target, while at the same time continuing to do so in a measured and progressive manner with due consideration of commercial requirements and realities.

Comparing the economic implications and benefits of the original (October 2014) Phase 2 development proposal with that which is currently being planned, the current proposal will result in higher construction workforce requirements overall as compared to the original proposal, including opportunities associated with railway construction over several years which were not originally envisioned. Similarly, the operations phase of the refined development concept will involve previously unforeseen employment and business opportunities in railway maintenance and operations and in other aspects of the Project. Although the shift from road transportation to the railway will result in a decreased demand for certain types of occupations, such as truck drivers, the overall employment associated with the refined proposal (and the rail option) remains significant and will also provide associated opportunities and benefits in terms of training and technology transfer. Further details on the anticipated employment, business and other economic benefits associated with the Project will be presented in the associated Environmental Impact Statement (EIS).

Although the development of the rail option has a clear upfront construction cost, once in place the use of the railway will significantly reduce the operating costs associated with the Project contributing to overall Project viability over the long-term. Moreover, as discussed in the next section, operational

experience and insights obtained by Baffinland throughout the ERP to date indicates that it would be technically and logistically difficult, if not impossible, to transport 12 Mtpa of iron ore over the Tote Road. Therefore, the required growth of the Project described above likely cannot be achieved through the on-going use of the road, and so the development of the rail to the north is considered critical to the future growth and sustainment of the Project.

Given the recent and current economic and financial climate, Baffinland recognizes that it will have to continue with its staged development approach for the Mary River Project, including the continued deferral of the construction of some components already approved under Project Certificate No 005. This includes the previously approved construction and operation of the southern railway to Steensby Inlet and the planned port facilities at that location. Indeed, as the estimated capital investment necessary to initiate these aspects of the Project are expected to exceed $5 billion, current market conditions and issues around the availability of acceptable financing preclude Baffinland from proceeding with these components at this time.

3.3 Technical and Logistical

Baffinland's decision to proceed with the development of a railway from the Mine Site north to the Milne Port site is also based on a number of important technical and logistical considerations. As noted above, the over two years of operational experience obtained through the ERP have provided some important lessons and insights into Project related requirements and challenges. Experience with trucking along the Tote Road has demonstrated that this is a very challenging method of transporting high volumes of ore due to terrain, weather, and road maintenance requirements. Although it may be feasible to increase trucking rates to those which may be required for a production increase from 4.2 Mtpa to 6 Mtpa along the Tote Road, it is considered challenging if not impossible to increase the traffic up to the required 12 Mtpa production rate or beyond.

The planned increase in iron ore production associated with the Phase 2 development would require an estimated six round trips per day once the railway is operational. In addition to the much lower operating costs associated with the railway once it is constructed (as outlined in the preceding section), the continued and increased use of truck traffic along the road creates important safety considerations related to the overall distances and remote areas involved, inclement weather and ice conditions, working in long periods of darkness, and the existence of other dangerous conditions depending on the time of year associated with the inevitably poor and variable condition of the road given the harsh local conditions. Because of these challenges and the annual need to suspend road travel each year during periods of freeze up and thaw, moving to a rail transportation system will improve the overall reliability of the Project's transportation system, and thus, its supply of iron ore to its customers. Rail transportation is therefore considered the most technically and financially viable approach for the transportation of ore for a long-life mine.

The Northern Rail alternative was originally investigated during the Mary River Project Feasibility Study of 2008, but as stated in Mary River FEIS Volume 3 (pages 116-118), this option was rejected for reasons of uncertainty related to the Northern Shipping route. These concerns were primarily around uncertainties with shipping through ice along that route. Baffinland now proposes to conduct shipping primarily during the open-water season, and because of Baffinland's operational experience in the Northern Shipping route to date, these previous concerns with the Northern Railway have been addressed.

The planned increase in mine production and associated development and use of the northern railway has also necessitated a number of refinements to various aspects of the Project, as described in Section 4.0. The construction and operation of each of these components will utilize relatively standard and routine methods and practices, none of which will require or employ new or unproven processes or technologies. These will therefore not present any important or increased technical or logistical challenges or issues during the development.

3.4 Environmental

The Phase 2 development as currently proposed comprises a technically feasible, economically viable, and environmentally sound means of facilitating the future expansion and growth of the Project by increasing its current production rates and the transportation of these mine outputs to markets. Baffinland's experience with the construction and operation of the ERP component of the Project to date, along with the information and insights obtained through its previous and on-going environmental and socioeconomic studies and consultations to date have provided the Proponent with a very good understanding of the potential environmental issues and considerations that are or may be associated with the Project.

An analysis of the potential environmental implications that may be associated with the currently proposed Phase 2 development as compared to the original October 2014 proposal indicates that there will likely be a number of important environmental benefits associated with the current development concept. For example, the proposed railway route will largely follow along the existing Tote Road, veering away from this route only where terrain and associated design and operational and safety considerations require that it do so. The development of the railway between the Mine Site and Milne Port will therefore not result in the creation of a new linear development route in the area, and will therefore, will not create increased access to any currently remote areas and associated environmental issues.

The development and use of the railway from the Mine Site to Milne Port will have the effect of reducing and ultimately replacing the use of haul trucks to transport iron ore along the Tote Road. This will avoid or reduce a number of key environmental issues and interactions, including creating far less dust, noise and other disturbances that would be associated with increased truck traffic, as well as reduced potential disturbances to wildlife in the area including collisions or other sources of possible injury or mortality. The planned use of rail as opposed to increased truck traffic will also considerably reduce any resulting atmospheric emissions and resulting air quality effects that would result from this vehicular traffic (including carbon monoxide (CO), nitrogen oxides (NOX), total suspended particulates (TSP), volatile organic compounds (VOCs), greenhouse gases (GHGs)). In general, noise and vibration are not considered to be a significant issue for low speed rail operations such as this, except in the direct vicinity of rail yards and during car connections. Ballasted track (particularly with timber ties) absorbs vibration to some extent, and maintenance activities carried out on a regular basis will also correct many of the small irregularities that cause major noise and vibration in the railway system. An estimate of, and analysis regarding, potential Project-related air and noise emissions, and a comparison of those related to truck traffic and the railway, will be calculated and provided in the EIS.

Baffinland is aware that the concept of winter shipping and ice breaking was a key area of regulatory and public concern for the Project. In its extensive governmental, community and stakeholder consultations in recent years on the Phase 2 development proposal, participants often raised questions and concerns regarding potential shipping through ice. This included issues around the possible effects

of this activity on the marine environment (including marine mammals) and on Inuit land use activities and travel routes in key periods (especially March to June), with an associated request that Baffinland consider increasing the level of shipping in open water in order to reduce the number and timing of through ice transits, or possibly, as a complete alternative to undertaking winter shipping.

The planned development of the railway and the expansion of the facilities at Milne Port will allow Baffinland to optimize its planned iron ore shipments during the ice free / open water period . As a result, and to allow for some required operational flexibility, Baffinland will be seeking approval to ship ore from July 01 to December 31. This is considered to be a more environmentally acceptable scenario than the requirement under the previous concept which would have seen the shipping period extending from early June through the end of March, along with associated ice management, trans-shipping activities and facilities and required seasonal fuel storage at sea.

4 INTERACTION OF RAIL WITH EXISTING OR PROPOSED INFRASTRUCTURE

In addition to the planned development and use of the Northern Railway, as described in Section 2.0, there are a number of other refinements to the Phase 2 development that have been identified and are being proposed by Baffinland, as described below:

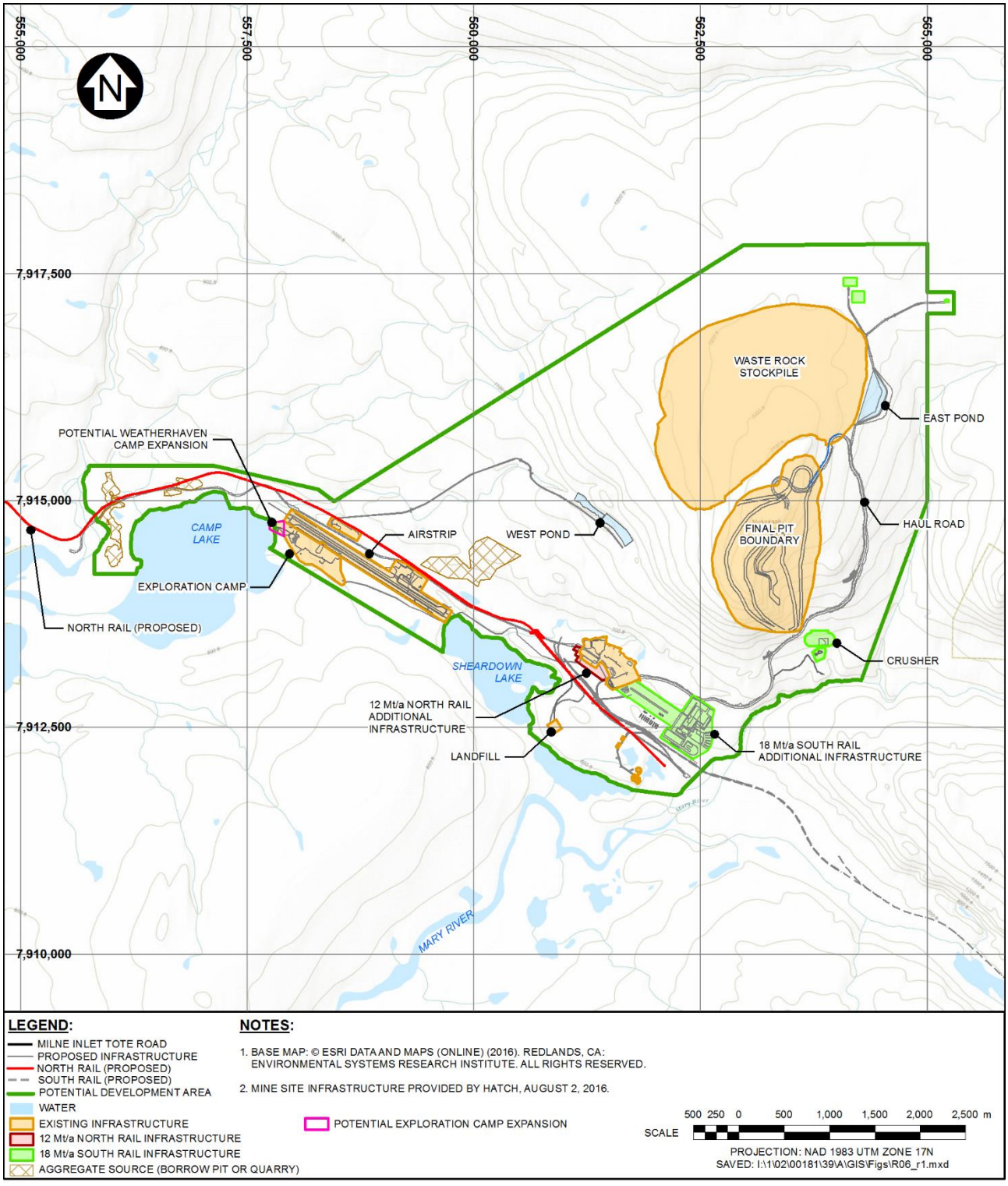
4.1 Mine Site

As originally proposed in October 2014, the currently planned Phase 2 development will see an increase in mine production over time, from the 4.2 Mtpa rate of production achieved through the initial ERP development, up to a production output of 12 Mtpa for shipment via the Northern Transportation Corridor.

The only new infrastructure required at the Mine Site (Figures 4.1 and 4.2) as compared to the original Phase 2 development proposal will be the construction and operation of a railway track and ore loading station required to support the northern railway operation.

Figure 4.1 Existing Mine Site

Figure 4.2 Mine Site Components and Activities



4.2 Tote Road

A number of upgrades and improvements to the existing Tote Road will be made to facilitate its use during the initial stages of Phase 2 for the transportation of iron ore and the movement of construction materials for the railway. These will include the installation of new bridges, culvert replacements and extensions, road base improvements, the realignment of several road sections and grade reductions in places. These construction activities will require material from several approved quarry and borrow sites in the region. There will also be an associated (temporary) increase in the number of truck transits on the roadway until the railway is developed.

Once the railway is in place the Tote Road will remain operational, but its use by Baffinland will drop substantially and will be limited to moving personnel and key goods.

4.3 Port Facility

As originally proposed in October 2014, the currently proposed Phase 2 development will see an increase in ore handling and shipping from the 4.2 Mtpa rate of production achieved through the initial ERP development, up to an output of 12 Mtpa. The optimization to rail does not change the proposed activities at the port.

Figure 4.3 Existing Milne Port Facility

The planned refinements to the Phase 2 proposal include:

a) Increasing the size of the proposed second ore dock and ship loader to accommodate Cape sized vessels;

b) Development of railway car unloading system, rail yard, and railway maintenance facility;

c) Reduced amount of proposed fuel storage; and

d) The installation of an enclosed ore crushing facility (indoor secondary crushing and screening).

In terms of the operation of the port site, until the completion of the planned rail infrastructure the iron ore haul trucks will again continue to travel to the port via the Tote Road. Once at the port site, they will dump coarse ore on a stockpile adjacent to the crusher building. This ore will be reclaimed by front-end loaders and fed to the crushing plant.

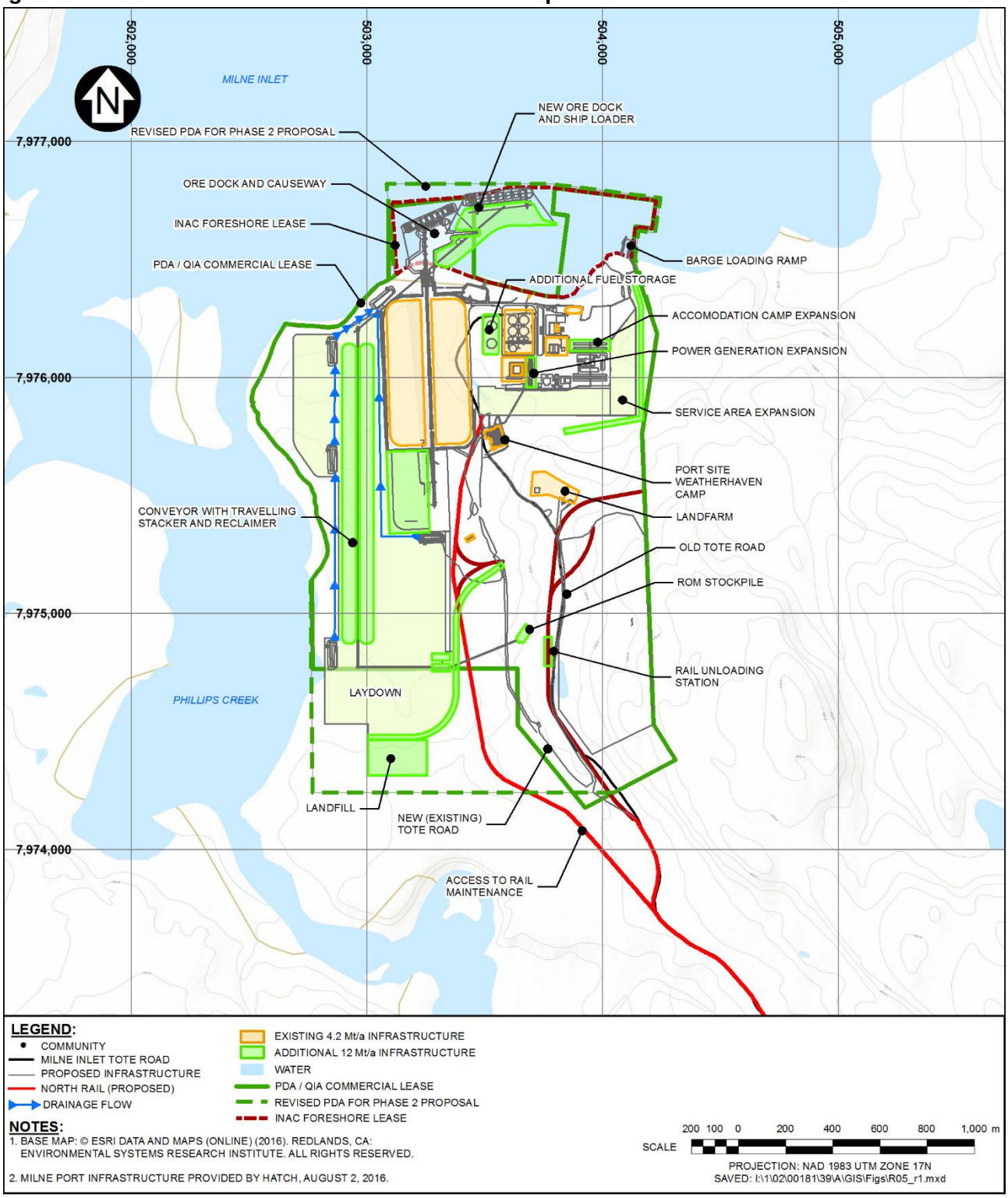
Rail infrastructure and access at the port will include tracks to provide service to the ore unloading facility and the railway maintenance yard. The railway maintenance facility at the port site will include maintenance shops and management offices. A shop for the care of track maintenance equipment, and a general storage area for spare parts and consumables will support year-round operations. Track maintenance crews will be housed at Milne Port. Locomotives will be fueled by a fixed tank located next to the track or mobile equipment. Locomotives at the far end of an ore train will be fueled by fuel truck. Fueling locations will be designed with spill containment to reduce the risk of a release.

Once the railway itself is developed and operational, the cars will be unloaded at Milne Port using a rotary dumper without any requirement to uncouple the cars. The material will then be stockpiled and conveyed from the rail unloading area to the crusher building.

During the shipping season ore will be reclaimed using the travelling reclaimer, which will load the ore onto the stacking / reclaim conveyor. The dock complex will be equipped with truss supported belt conveyors which will transfer iron ore from the stockpile feed conveyors to a ship-loading assembly at the two ore docks. The ship loaders will be anchored to the dock and be designed to load a range of cargo vessels. A systems control unit will be employed for control of the ship loaders and conveyors. Weigh scales and product samplers will be installed on the conveyors as required to facilitate inventory recording and quality control sampling.

Tugs and line boats will be used to shift the ore vessels from anchorages onto and of the dock. Market ore carriers transiting towards Milne Port will proceed directly to either an open loading dock, or to one of several anchorages available in the event that the dock space is full. The tugs will also assist in vessel undocking as required.

Figure 4.4 Milne Port Infrastructure and Planned Expansion



4.4 Shipping

As identified in the October 2014 filing, the Project will also see an increase in total vessel traffic to and from Milne Port. Baffinland's optimized shipping strategy has been developed to maximize shipment during the open water season by increasing the capacity of the proposed second ore dock to increase the capacity of the port, as described in the previous section.

In response to community input, Baffinland will make every effort to ship ore during the open water season and will seek approval to ship ore from July 01 to December 31 only.

To maximize the capacity and use of the port, a variety of market vessels will be used depending on the time of year and availability. These may include:

- Supramax vessels (55,000 dwt)
- Panamax vessels (75,000 dwt)
- Post Panamax vessels (90,000 dwt)
- Cape size vessels (250,000 dwt)

Efforts will be focussed on optimizing shipping during the open water season. Direct shipping with market ore carriers during the open-water season in July will start with ice class Supramax and Panamax market vessels. This will be followed by the use of market Panamax, Post-Panamax and Cape vessels transiting direct to customer ports. All efforts will also be made to ship fuel and freight during the open water season. However, Baffinland will be seeking the ability to conduct winter sea lift of freight if required to support ongoing operations. All vessels (ore carriers, freight vessels and fuel tankers) will adhere to the current speed restrictions when transiting through Eclipse Sound and Milne Inlet.

Transhipping will no longer be required for the Phase 2 proposal and will not be carried forward in the approvals process.

5 CONSULTATION AND REGULATORY CONSIDERATIONS

The refinements to the Project described in this update are not a significant change in the nature or scope of the Project. In addition, they help to address identified questions and issues raised by stakeholders regarding the Phase 2 development, as identified through Baffinland's extensive consultation initiatives to date.

5.1 Consultation

Baffinland continues to conduct meaningful engagement with stakeholders potentially affected by the Mary River Project, including the five North Baffin Inuit Communities and QIA, applicable regulatory agencies and the general public. Baffinland's engagement efforts are guided by a Stakeholder Engagement Plan (SEP) which was most recently revised in 2016. Strong community engagement has allowed Baffinland to identify concerns and develop appropriate mitigation measures to address them.

The objectives of Baffinland's engagement activities are to:

- Provide communities with the opportunity to review Project information in a timely manner and identify issues of concern and potential mitigation;
- Facilitate effective implementation of and compliance with commitments contained in the Inuit Impact and Benefit Agreement (IIBA);
- Allow traditional and local knowledge to be taken into consideration to improve internal decision-making processes; and
- Reduce business and reputational risks and contribute to the "social licence".

To achieve these objectives, a range of engagement methods have been and continue to be employed, including:

- Employment of Baffinland Community Liaison Officers (BCLOs), who are local community representatives that bridge the cultural gap between their specific community and Baffinland and who are the "face" of the company in the local communities;
- Community and employee surveys;
- Open Houses and Community Meetings;
- Community focus group discussions;
- Targeted consultation through meetings with specific stakeholder groups (Hamlets, local Hunters and Trappers Organizations, the Mary River Community Group);
- Technical workshops in the North Baffin communities, including workshops focussed on specific issues or concerns that have been identified during the environmental assessment process and

other consultation and engagement activities, such as Inuit Qaujimajatuqangit (Traditional Knowledge), caribou, marine mammals, and land use and socio-economic matters;

- Participation in multi-stakeholder groups such as the Terrestrial Environment Working Group (TEWG) and the Marine Environment Working Group (MEWG), Qikiqtaaluk Socio-Economic Monitoring Committee (QSEMC), and the IIBA Annual Community Forum;

- IIBA Joint Management and Executive Committees;

- Project website and newsletters, newspapers, radio and TV broadcasts; and

- Site visits.

Recent and on-going initiatives include:

- Meetings with Mary River Community Group and the Mary River Socio-Economic Monitoring Working Group;

- Annual IIBA Project Review Forum together with representatives from Baffinland, QIA and the five North Baffin communities to review progress in implementation of the IIBA;

- Participation in meetings of the IIBA Joint Management Committee and the Joint Executive and Joint Management Committees;

- Participation in meetings of the TEWG, MEWG, the QSEMC and the Canadian Marine Advisory Council; and

- Regular meetings with regulators, including the Government of Nunavut, the Department of Indigenous and Northern Affairs and the Department of Fisheries and Oceans

Since the submission of the Mary River Project Phase 2 Second Amendment to Project Certificate No 005 Project Description to NIRB in October 2014, Baffinland has regularly and directly engaged with the five North Baffin communities and community groups to provide information on Phase 2 and to discuss any issues of concern. These engagement activities have included the following:

- February, 2015: Community tour of the five North Baffin communities;

- January, 2015: Open House in Pond Inlet;

- March - November, 2015: Workshops in Pond Inlet on Contemporary Inuit Land Use of the Eclipse Sound and Navy Board Inlet Areas, Shipping through Ice, Open Water Shipping, and Caribou;

- April, 2015: Tour of the Voisey's Bay winter shipping route with key individuals to personally observe shipping through ice;

- May, 2016: Workshop on Phase 2 in Arctic Bay;

- May, 2016: Meeting with Pond Inlet Youth Council;
- July, 2016: Shipping Update delivered in Pond Inlet;
- September, 2016: Community Survey of the five North Baffin communities, and
- November, 2016: Community tour of the five North Baffin communities, meetings with each hamlet and meetings with the Hunters and Trappers Organizations (HTO) of Pond Inlet and Arctic Bay.

The workshops held in Pond Inlet between March and November 2015 on Shipping Through Ice and Open Water Shipping have provided valuable feedback to Baffinland regarding community views around the timing, routing and conduct of the shipping component of the Phase 2 proposal. With respect to possible shipping through ice, potential effects upon the marine environment (including marine mammals) and potential interference with Inuit travel routes and land use activities arising from ice breaking activities were identified as key concerns. In order to mitigate these, participants suggested that Baffinland avoid shipping in June, as this month is the peak period for Inuit hunters and families going out on the ice to hunt, travel and camp. Similarly, it was also recommended that shipping through Eclipse Sound occur only after community travel to the floe edge was shut down by the Pond Inlet HTO. Shipping during March was a concern for some participants (due to seal pupping) and it was suggested that shipping be avoided during this period. Other participants proposed that shipping be avoided in April and May and that ship traffic should be stopped during times when Nunavut Quest dog team racers would be crossing the ship track. It is also particularly noteworthy that some individuals also advocated for an increase in open water transits to reduce the necessity of shipping through ice.

Although participants at the Shipping Though Ice and Open Water Shipping Workshop also identified some concerns about the possible effects of Phase 2 on the marine environment (including marine mammals) and on Inuit land use activities, open water shipping raised far fewer concerns than shipping through ice. Open water shipping was regarded far more favourably by the community since Pond Inlet residents had past experience with this type of shipping and because similar open water shipping activities through Pond Inlet had already been approved by regulators (including in the ERP).

More recently, between November 21 and 26, 2016 representatives of Baffinland conducted a community tour of the five North Baffin communities of Pond Inlet, Clyde River, Arctic Bay, Igloolik and Hall Beach. Open houses and public meetings were held in each community, and Baffinland also met separately with the five Mayors and Councils and with the Mittimatalik HTO (Pond Inlet) and the Ikajutit HTO (Arctic Bay). The purpose of these meetings was to provide a Project update, including a preliminary introduction to and overview of the proposal to transport ore from the mine site to Milne Inlet by rail rather than by the Tote Road. During these sessions no objections to the rail alternative were raised in any of the meetings. One question was asked about the potential impact of the railway on trucking employment opportunities. As was noted in Baffinland's response, while the overall number of truck drivers would be reduced with the substitution of rail for road transport, the transition to rail would ultimately increase the number and duration of potential jobs in other aspects of the production, transport and shipping of ore to overseas markets.

Baffinland has therefore listened and responded to community concerns expressed during its early consultations on Phase 2. The proposal to shift from road to rail transport will eliminate or reduce many of the issues identified by stakeholders in relation to the Tote Road. Baffinland has also listened to the

communities and has committed to optimize shipping though open water and remove the request to seek approval to ship during critical months identified by the communities.

To ensure that community views continue to be taken into account, Baffinland will continue to undertake an active and ongoing approach to engagement with the communities and other stakeholders. Baffinland has specifically committed to return to the five North Baffin communities early in 2017 to provide further and more detailed information respecting the Project update and associated regulatory processes. Relevant documentation will be provided in advance of any community, hamlet and HTO meetings to ensure that stakeholders have a meaningful opportunity to identify and discuss issues of concern. All stakeholder engagement activities will be documented through Staketracker consultation software and issues will be addressed and reported as required. Baffinland will continue to ensure that its engagement activities comply with the terms and conditions of all relevant standards, regulations, Project authorizations and the IIBA.

5.2 Nunavut Agreement and Nunavut Project Planning and Assessment Act

Project Certificate No. 005 was issued by the NIRB to Baffinland for the Project in late 2012 under Article 12.5 of the Nunavut Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada as amended (the Nunavut Agreement). The Project Certificate was amended for the Early Revenue Phase Proposal in mid-2014. The Phase 2 Proposal, if approved by the NIRB and the INAC Minister, is to be authorized by a second amendment to the Project Certificate. The Phase 2 Proposal was initiated in 2014 prior to the Nunavut Project Planning and Assessment Act (NUPPAA) coming into force.

On March 10, 2016, the Qikiqtani Inuit Association (QIA) sent a letter to the NIRB suggesting that the proposed refinements discussed in this update are a significant modification to the Project and should be subject to a screening assessment under the Nunavut Agreement. A screening is required by the NIRB under Section 12.4.3 of the Nunavut Agreement if: (i) a project proposal was not part of the original proposal; or, (ii) a project proposal would significantly modify the project.

A screening has already been conducted for Phase 2 and nothing further is required for these planned refinements as there is no new trigger for a screening under The Nunavut Agreement due to:

i) The refinements are not a new activity or component but are instead an optimization of the Phase 2 Project Description submitted in October 2014 as a result of comments, consultation and consideration of the October 2015 Guidelines. For example, a northern railway alternative to Milne Port was considered in 2008 feasibility studies and was included as an alternative in Baffinland's FEIS for the Project;

ii) The refinements will also not result in changes to the PDA at the Mine Site. The proposed northern railway fits within the previously approved Northern Transportation Corridor and is consistent with land use plans;

iii) The quantity of ore to be transported remains unchanged; and

iv) The location of the transportation route remains unchanged, as the proposed railway is within the same transportation corridor as the road;

v) The switch from road to rail will result in a net reduction in negative environmental and socio-economic impacts.

The proposed Phase 2 refinements are therefore in conformity with the processes outlined in the Nunavut Agreement and should be reviewed as part of the ongoing EA review by the NIRB. This approach is supported by stakeholders such as the Hamlet of Pond Inlet.

On November 2, 2016, the NIRB acknowledged that Pond Inlet supports consideration of the Phase 2 refinements within the NIRB's ongoing EA review process.

5.3 Land Use Plan

The planned refinements to the Phase 2 proposal are also consistent with the North Baffin Land Use Plan (NBLUP). In 2014 an amendment to the NBLUP was recommended by the Nunavut Planning Commission (NPC) and approved by the Minister to accommodate the Northern Transportation Corridor. The 2014 Phase 2 Project Description and the proposed refinements described in this document are consistent with the amended NBLUP, which contemplates additional industrial activities within the Northern Transportation Corridor to service the operation of the Mary River Mine Site.

The proposed northern railway is also consistent with the multi-modal transportation corridors described in the draft Nunavut Land Use Plan (NLUP). The Northern Transportation Corridor will encompass the existing Tote Road and the proposed northern railway linking the Mine Site to Milne Port. The provisions of the NLUP permit Transportation Corridors up to 10 km in width, including roads and railways:

> Linear Infrastructure means any form of constructed infrastructure that is linear in nature. These may include: a) Communication and/or Telephone Lines; b) Highways; c) Marine Undersea Utility Corridor; d) Mine Bulk Hauling Roads; e) Mine Servicing Roads; f) Public Roads; g) Pipelines; h) Power lines; i) Private Roads; and/or j) Railways. …
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> Linear Infrastructure Corridor (LIC) refers to a strip of land, narrower than 10 km, marking the location where Linear Infrastructure is to be constructed. These corridors may, if so authorized in the NLUP, combine multimodal, intermodal, and utilities such as power and communication transmission lines and towers. …
>
> Transportation Corridor is a type of L.I.C. whose purpose is solely for transportation. Such a corridor can be multi-modal. Facilities for operation or maintenance, or services of travellers are included in this definition. [emphasis added]

The Tote Road and the currently proposed northern railway fit well within a 10 km corridor width within the Northern Transportation Corridor. The railway will closely follow Tote Road for the majority of its alignment. The maximum distance between the proposed railway and Tote Road is approximately seven kilometers. The current proposal is therefore in conformity with the wording and intent of the NLUP to ensure that linear developments are contained within corridors.

5.4 Ministerial Exemption

The QIA's March 10, 2016 letter suggests that clarification is required around whether a previous Ministerial Exemption continues to apply to the Project. The planned refinements do not propose any change that engages previous ministerial exemptions and no such clarification is required.

On October 29, 2014, Baffinland proposed a second amendment to the Project to increase shipping transits through the Northern Shipping Route and to extend the shipping season. On July 13, 2015, the Minister granted Baffinland an exemption from the NBLUP under the Nunavut Agreement (Ministerial Exemption) to permit the proposed shipping season extension. The refinements described herein optimize transportation from the Mine Site to maximize open water shipping. The Ministerial Exemption continues to apply and is not affected by Baffinland's current proposal.

5.5 EIS Guidelines

The proposed Phase 2 development will require a second amendment to NIRB Project Certificate No. 005. In October 2014 Baffinland submitted a Project Description for the as then proposed activities to the NIRB, the Nunavut Planning Commission and other stakeholders. Based on that submission, on October 6, 2015 the NIRB issued Amended Guidelines which incorporated and addressed that proposal.

A detailed review of the Guidelines issued by the NIRB indicates that these remain fully applicable to the currently proposed activities (as recently refined and described herein), and that all of the relevant Project components, information requirements, environmental issues and interactions and other factors relevant to the EIS are inherently and integrally covered within the content of the Guidelines as currently written. This includes the overall nature and specific components of the Project (e.g., Sections 3.2.2, 6.5 of the Guidelines), as they address all planned railway and shipping activities associated with the current proposal, and are not focussed specifically and exclusively on Steensby Inlet and the southern railway line. Nothing in the text therefore precludes consideration, selection and assessment of a railway line to Milne Port, including the planned construction and operation of same. The current Guidelines also allow for consideration and inclusion of potential shipping activities from both Steensby Inlet and Milne Inlet, including both open water and year round operations and all associated undertakings and works for "the selected port site". This is also the case regarding the various environmental components and factors to be considered in the EIS (e.g., Sections 3.2.2, 7.2, 8.0 of the Guidelines), in that each of the biophysical and socioeconomic components listed are equally applicable to the optimized Phase 2 proposal, and no new environmental components or issues outside of these listed here need to be added or otherwise cannot be addressed within this aspect of the Guidelines.

It is also noteworthy that the current EIS Guidelines (including Section 6.1 in particular) also require the identification and evaluation of alternative means of carrying out the Project, based on technical, economic and environmental factors, as well as the input received from the public and other interested parties. This includes a requirement for Baffinland to consider and asses a number of alternatives that are currently being planned, including: an increase to the production rate at the Mary River site; increased iron ore shipping via Milne Port; expanded infrastructure at Milne Port including: establishment of second dock, increased ore stockpiling capacity, and others. This section of the current Guidelines also specifically requires consideration of "alternatives for the routing of the railway and the location of the sea port, including:… routing the rail line from the Mary River Mine Site to a seaport at Milne Inlet." Baffinland has therefore proactively and voluntarily identified, considered and advanced

several of these alternatives as part of the previously described refinements to the Phase 2 development, on the basis of economic, technical, environmental and social considerations, including stakeholder concerns and perspectives on various aspects of the Project. A further assessment and evaluation of these and other identified alternative means of carrying out the Project will be presented in the EIS as part of the on-going EA process.

The current (October 2015) Amended Guidelines for the Preparation of an EIS for the Mary River Project remain fully applicable, and based on this do not need to be repealed, modified and re-issued to address the nature and scope of the development as refined and currently proposed.

5.6 NIRB Process

The optimized Phase 2 development proposal continues to be consistent with the Nunavut Agreement, North Baffin Land Use Plan, and the draft Nunavut Land Use Plan (the latter of which has again been generally considered here for guidance purposes). One of the key refinements is the proposed northern railway within the approved Northern Transportation Corridor. The northern railway will minimize the dust, potential wildlife interactions and other environmental and safety issues associated with transporting increased volumes of ore by truck along the Tote Road. These refinements are positive and made in response to public concerns, which will allow the NIRB to continue its review within the current Phase 2 review process.

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6 SUMMARY AND CONCLUSION

Baffinland continues to pursue a phased approach to the development, operation and planned growth of the Mary River Project. Through its early development, the Project has been an important economic driver in Nunavut, creating significant direct employment and business activities throughout its construction and operations phases. Through these direct and spin-off employment and business benefits and associated taxation revenues, the Project has been and remains a vital component of the current socioeconomic structure of the area, and has made significant economic contributions at the community, territorial and national scales.

The ERP amendment to Project Certificate NO 005 permits a total of 4.2 Mtpa production. Under recent market conditions with low prices, this level of production has proved to be insufficient to generate sustained positive cash flow from operations. Nevertheless, Baffinland's shareholders have continued to invest in the Project to fund its working capital requirements, as well as to grow its shipment capacity to the currently permitted annual shipment limit of 4.2 Mtpa. Baffinland's shareholders strongly believe that to insulate the Project from extended low price environments and to generate necessary returns to justify continued investments, the Project needs to expand further to a level of 12 Mtpa with a lower cost rail transport to port.

The Phase 2 development concept has continued to evolve and become further defined since the submission of the October 2014 Mary River Project Phase 2 Second Amendment to Project Certificate No 005 Project Description. This has included a number of updates and refinements to the proposal, based on technical, economic, environmental and other factors, including the results of Baffinland's on-going public and stakeholder engagement initiatives.

A key purpose and focus of this Project Update has been to describe, and present the overall need, purpose and rationale for, these proposed refinements to the Phase 2 proposal, including the economic, social, technical and environmental considerations and benefits associated with these. These are summarized below:

- It will increase the overall scale of the Project, and in doing so, will extend and help sustain the important employment opportunities, skills development and work experience, and business opportunities that are resulting from it. The refined Phase 2 proposal further increases and diversifies these economic benefits as compared to the original proposal.

- The Project itself is at a stage where an increased level of production is required to reach the associated economy of scale necessary to facilitate its on-going operation and future growth as a multi-generational development.

- Although the planned development of the railway has a clear upfront construction cost, once in place it will significantly reduce the operating costs associated with the Project, thereby contributing to overall Project viability over the long-term. Moreover, it would be economically, technically and logistically difficult, if not impossible, to transport the iron ore products associated with a 12 Mtpa and beyond mine operation over the Tote Road. The development of the rail to the north is therefore considered critical to the future growth and sustainment of the Project.

- Increased truck traffic along the road would create important safety concerns related to the overall distances, remoteness, weather and ice conditions involved. The development of the

railway will mitigate the need to suspend road travel each year during periods of freeze up and thaw, thereby improving the reliability of the transportation system, and thus, the supply of iron ore to customers.

- There are increased environmental benefits associated with the current development concept, as the planned use of the rail will result in far less air emissions, dust, noise and other disturbances than would be associated with the continued and increased truck traffic along the Tote Road, as well as reduced potential for interactions with wildlife.

- The planned development of the railway and the expansion of the facilities at Milne Port will also allow Baffinland to focus its planned iron ore shipments on the ice free / open water period, as well as not requiring trans-shipping that was associated with the original proposal.

In addition to these economic, technical and environmental benefits associated with the proposed refinements to the Phase 2 proposal, these optimizations, and the development overall, are also well in keeping with the various regulatory, planning and other legislative and policy processes that apply to the Project, including the Nunavut Agreement, the previous Ministerial Exemption, relevant Land Use Planning processes, the current EIS Guidelines and the NIRB's processes.

These planned refinements have also been informed and guided by the views and perspectives raised during Baffinland's on-going regulatory, community and stakeholder engagement initiatives, and reflect Baffinland's desire to proactively address questions and concerns raised regarding various aspects of the original Phase 2 proposal.