

Baffinland Iron Mines LP
Mary River Expansion Stage 3
Definitive Study Report
Section 18 – Sustainable Development




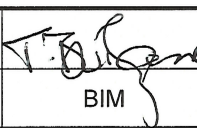
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| 2017-05-01 | 0 | Approved for Use | BIM | BIM | BIM | BIM |
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18. Sustainable Development

18.1 Introduction

The purpose of this Section is to describe the approach the Mary River Expansion Project (The Project) will implement to ensure Baffinland Iron Mines Corporation's (Baffinland) commitment to sustainable development is actualized and Baffinland's regulatory requirements and commitments are met.

As The Project represents an expansion to an existing operation, the intention of this section is to summarize the current operational control and regulatory approval mechanisms obtained by the Mary River Project for its existing operation and identify the changes required to them to account for the anticipated changes to the biophysical and socioeconomic environment resulting from the Stage 3 Project.

The Project scope of work includes shipping 12 Mtpa of Direct Ship Ore (DSO) from Milne Inlet, using up to Cape size ore carriers ships utilizing a shipping window of July 01 to November 15 annually. Ore would be transported from the Mine Site to Milne Port via the development of a north railway that follows the existing Tote Road to the extent feasible.

18.2 Sustainable Development Policy

The Baffinland Sustainable Development Policy endorses the principle of sustainable development, recognizing that sustainable development includes commitments to health, safety, and the environment through a balanced approach to economic, technical, and social issues. This policy sets forth Baffinland's ongoing commitment to health, safety, and the environment. The Baffinland Sustainable Development Policy was approved by Baffinland's CEO, Brian Penney, in March 2016.

Baffinland Sustainable Development Policy is as follows:

Baffinland Iron Mines Corporation (Baffinland), we are committed to conducting all aspects of our business in accordance with the principles of sustainable development & corporate responsibility and always with the needs of future generations in mind. Baffinland conducts its business in accordance with the Universal Declaration of Human Rights and ArcelorMittal's Human Rights Policy which applies to all employees and affiliates globally.

Everything we do is underpinned by our responsibility to protect the environment, to operate safely and fiscally responsibly and with utmost respect for the cultural values and legal rights of Inuit. We expect each and every employee, contractor, and visitor to demonstrate courageous leadership in personally committing to this policy through their actions. The Sustainable Development and Human Rights Policy is communicated to the public, all employees and contractors and it will be reviewed and revised as necessary on a regular basis. These four pillars form the foundation of our corporate responsibility strategy:

1. *Health and Safety*
2. *Environment*
3. *Upholding Human Rights of Stakeholders*
4. *Transparent Governance*

1.0 HEALTH AND SAFETY

- *We strive to achieve the safest workplace for our employees and contractors; free from occupational injury and illness, where everyone goes home safe everyday of their working life. Why? Because our people are our greatest asset. Nothing is as important as their health and safety. Our motto is "Safety First, Always".*
- *We report, manage and learn from injuries, illnesses and high potential incidents to foster a workplace culture focused on safety and the prevention of incidents.*
- *We foster and maintain a positive culture of shared responsibility based on participation, behaviour, awareness and promoting active courageous leadership. We allow our employees and contractors the right to stop any work if and when they see something that is not safe.*

2.0 ENVIRONMENT

- *Baffinland employs a balance of the best scientific and traditional Inuit knowledge to safeguard the environment.*
- *Baffinland applies the principles of pollution prevention, waste reduction and continuous improvement to minimize ecosystem impacts, and facilitate biodiversity conservation.*
- *We continuously seek to use energy, raw materials and natural resources more efficiently and effectively. We strive to develop more sustainable practices.*
- *Baffinland ensures that an effective closure strategy is in place at all stages of project development to ensure reclamation objectives are met.*

3.0 UPHOLDING HUMAN RIGHTS OF STAKEHOLDERS

- *We respect human rights, the dignity of others and the diversity in our workforce. Baffinland honours and respects the unique cultural values and traditions of Inuit.*

- *Baffinland does not tolerate discrimination against individuals on the basis of race, colour, gender, religion, political opinion, nationality or social origin, or harassment of individuals freely employed.*
- *Baffinland contributes to the social, cultural and economic development of sustainable communities in the North Baffin Region.*
- *We honour our commitments by being sensitive to local needs and priorities through engagement with local communities, governments, employees and the public. We work in active partnership to create a shared understanding of relevant social, economic and environmental issues, and take their views into consideration when making decisions.*
- *We expect our employees and contractors, as well as community members, to bring human rights concerns to our attention through our external grievance mechanism and internal human resources channels. Baffinland is committed to engaging with our communities of interest on our human rights impacts and to reporting on our performance.*

4.0 TRANSPARENT GOVERNANCE

- *Baffinland will take steps to understand, evaluate and manage risks on a continuing basis, including those that may impact the environment, employees, contractors, local communities, customers and shareholders.*
- *Baffinland endeavours to ensure that adequate resources are available and that systems are in place to implement risk-based management systems, including defined standards and objectives for continuous improvement.*
- *We measure and review performance with respect to our safety, health, environmental, socio-economic commitments and set annual targets and objectives.*
- *Baffinland conducts all activities in compliance with the highest applicable legal & regulatory requirements and internal standards.*
- *We strive to employ our shareholder's capital effectively and efficiently and demonstrate honesty and integrity by applying the highest standards of ethical conduct.*

4.1 FURTHER INFORMATION

Please refer to the following policies and documents for more information on Baffinland's commitment to operating in an environmentally and socially responsible manner:

- *Health, Safety and Environment Policy*

- *Workplace Conduct Policy*
- *Inuktitut in the Workplace Policy*
- *Site Access Policy*
- *Hunting and Fishing (Harvesting) Policy*
- *Annual Report to Nunavut Impact Review Board*
- *ArcelorMittal Canada Sustainability and Corporate Responsibility Report*

If you have questions about Baffinland's commitment to upholding human rights, please direct them to contact@baffinland.com.

*Brian Penney
Chief Executive Officer
March 2016*

18.3 Current Project Approvals

The Stage 3 Project will comply and meet Nunavut and federal regulatory requirements. Authorizations for the existing operation were identified through consultation with the applicable regulatory agencies, conformity to the North Baffin Regional Land Use Plan (NBRLUP) under the jurisdiction of the Nunavut Planning Commission (NPC), and conformity to the guidelines for the development of an environmental and socio economic impact statement as directed by the Nunavut Impact Review Board (NIRB).

A comprehensive list of current Project approvals and authorizations are included in Table 18-1 with discussion on the of key approval instruments in the proceeding sub-sections.

Table 18-1: Current Project Approvals

| Permit Name | Permit Number | Regulatory Agency | Expiry |
|--|---------------|---------------------------------------|-----------|
| Project Certificate and Amended Project Certificate | 005 | Nunavut Impact Review Board | No Expiry |
| Inuit Impact Benefit Agreement | N/A | Qikiqtani Inuit Association | No Expiry |
| Commercial Lease | Q13C301 | Qikiqtani Inuit Association | 31-Dec-43 |
| Amendment No.1 Type A Water Licence ¹ | 2AM-MRY1325 | Nunavut Water Board | 10-Jun-25 |
| Type B Water License - Exploration | 2BE-MRY1421 | Nunavut Water Board | 16-Apr-21 |
| Land Use Permit - Steensby and Milne | N2014C0013 | Indigenous an Northern Affairs Canada | 30-Jun-17 |
| Land Use Permit - Milne Foreshore | N2014X0012 | Indigenous an Northern Affairs Canada | 30-Jun-17 |
| Land Use and Quarrying Permit - Tote Road (Borrow P1 at Km 63) | N2014Q0016 | Indigenous an Northern Affairs Canada | 30-Jun-17 |
| Land Use Permit - Bruce Head | N2014J0011 | Indigenous an Northern Affairs Canada | 30-Jun-17 |
| Land Lease - Milne Foreshore | 47H/16-1-2 | Indigenous an Northern Affairs Canada | 30-Jun-35 |
| Permitted Quarries and Borrows on Inuit Owned Land: Quarries Q1, | N/A | Qikiqtani Inuit Association | N/A |

| Permit Name | Permit Number | Regulatory Agency | Expiry |
|---|---|------------------------------------|-------------------------|
| QMR2, Q7, Q11, Q19, Borrows KM104, Km 2, and Km 97 | | | |
| Fisheries Authorization - Ore Dock | 14-HCAA-00525 | Department of Fisheries and Oceans | 31-Dec-20 |
| Fisheries Authorization - Tote Road | NU-06-0084 | Department of Fisheries and Oceans | No Expiry |
| Fisheries Authorization – Crossings | 06-HCAA-CA7-00084 | Department of Fisheries and Oceans | 31-Dec-16 |
| Fisheries Crossings along Tote Road and Quarries, culvert extensions and replacements | Various Letters of Advice | Department of Fisheries and Oceans | No Expiry |
| Licence to Fish for Scientific Purposes and Animal Use Protocol ² | S-16/17-1016- NU, S-16/17- 1019-NU, AUP 2016-027 FWI-ACC-2016- 017 | Department of Fisheries and Oceans | - |
| Navigable Waters - Crossings | 8200-07-10273, 10267, 10269, 10268, 10274, 10272, 10266, 10271 | Transport Canada | Until work completed |
| Marine Facility | 4306-2-6- P/B | Transport Canada | 24-June-20 |
| Scientific Permit ³ | 02 008 15R-M | Government of Nunavut | - |
| Archaeology Permit ⁴ | 2016-29A | Government of Nunavut | - |
| Factory Licence ⁴ | F76068 | National Resources Canada | - |

NOTE:

¹ Previously held Type 'B' Water Licence 8BC-MRY1416 was cancelled in February 2016 as all activities therein are now covered by the amended Type 'A' Water Licence.

² Held by Minnow Environmental Inc. and North/South Consulting for Licence to Fish for Scientific Purposes associated with the Stage 3 Project

³ Held by Knight Plésold for performance of IQ and Traditional Harvest Studies associated with the Stage 3 Project

⁴ Held by Claude Pinard for performance of archeology work associated with the Stage 3 Project

⁵ Held by Dyno Nobel, the explosives contractor on behalf of the Stage 3 Project

18.3.1 **Project Certificate and Amended Project Certificate**

On December 28, 2012, the Nunavut Impact Review Board (NIRB) pursuant to Section 12.5.12 of Article 12 of the Nunavut Land Claims Agreement, issued Project Certificate No. 005 for the Mary River Project to Baffinland. The basis for this Project Certificate is Baffinland's Final Environmental Impact Statement (FEIS) which presented in-depth analyses and evaluation of potential environmental and socio-economic effects associated with mining of the reserves of Deposit No. 1 at a nominal rate of 18 Million tonnes per year (Mtpa). Development of this project includes the construction, operation, closure and post-closure activities associated with the Mine and its related infrastructure, the construction of a 150km railway from the Mine Site to a new port facility at Steensby Inlet, and the construction of the Steensby Port. The FEIS for the approved Mary River Project was prepared in adherence to Guidelines for the Preparation of an Environmental Impact Statement for the Baffinland Iron Mines Corporations Mary River Project (NIRB file No. 08MN053; the Guidelines), issued on November 16, 2009; and the NIRB's Preliminary Hearing Conference Decision for Baffinland Mary River Project, December 9, 2011.

18.3.1.1 *Final Environmental Impact Statement Amendment No.1*

Following receipt of the original Project Certificate, and as Baffinland noted in January 2013 with correspondence to the NIRB, a decision was made to postpone full development of the Mary River Project as described in the FEIS and rather move the Mary River Project forward in a phased approach due to the current economic climate at that time. This phased approach resulted in Baffinland proposing an Early Revenue Phase (ERP) to the Mary River Project. The ERP includes development of a nominal 4.2 Mtpa road haulage operation from the Mary River Mine Site to a port facility at Milne Inlet for shipping of iron ore during the open water season only. These activities were included in the Addendum to the FEIS submitted by Baffinland on June 20, 2013. Pursuant to Sections 12.5.12 and 12.8.3 of Article 12 of the Nunavut Agreement and based on the Addendum to the FEIS submitted and subsequent hearings and consultation, the NIRB issued an amended Project Certificate for the Mary River Project, including the ERP, to Baffinland on May 28, 2014, subject to the terms and conditions. This is the current Project Certificate the Mary River Project is operating under.

18.3.2 *Inuit Impact Benefit Agreement*

On September 6, 2013, the QIA and Baffinland signed the terms of the Inuit Impact Benefits Agreement (IIBA). Underlying the provisions of this Agreement is the principle of mutual benefit, collaboration and consultation for both Inuit and the Company from the Mary River Project. As per the IIBA, benefits for Inuit shall include financial participation, a comprehensive training strategy, target levels of Inuit employment, capacity building, business opportunities and Inuit content considerations in contracting. To the extent that Inuit achieve these benefits the Company will then be able to rely on efficient, high quality Inuit firms, a well-trained local work force, Project support and stability. Baffinland is required to adhere to the terms and conditions of the agreement throughout the life of the Stage 3 Project.

18.3.3 *Commercial Lease Agreement No.Q13C301*

Milne Port, most of the Milne Inlet Tote Road and the Mine Site are located on Inuit-owned land administered by the Qikiqtani Inuit Association (QIA). On September 6, 2013, the QIA, acting as the Landlord, and Baffinland, acting as the Tenant, signed a Commercial Lease for Inuit Owned Lands. Subject to terms and conditions, the Commercial Lease authorizes Baffinland to have and to hold, for and during the term of the lease, the land identified in the agreement. These areas encompass the vast majority of the current Mary River Project site. The terms and conditions of the Commercial Lease establish expectations between Baffinland and QIA regarding management of these areas. This includes the rent, boundaries, water use fees, quarry concession agreement, environmental conditions, authorities for QIA inspectors and auditors, required plans and reporting, and the amount and type of financial security required. The Commercial Lease expires on December 31, 2043.

18.3.4 *Type A Water Licence (2AM-MRY1325)*

On July 15, 2013 the Nunavut Water Board (NWB) issued a Type A Water Licence (2AM-MRY1325) for the Mary River Project. The Type A Water Licence authorizes Baffinland to use

water and deposit waste in support of a mining and milling undertaking at the Mary River Project. The original Type A Water Licence granted approval for the activities as described in the FEIS. Similar to the amendment process for the Project Certificate, in order to account for the ERP of the Mary River Project, an amendment to Type A Water Licence 2AM-MRY1325 was applied for to reflect the changes in project activities. Based on this application for the ERP, the Type A Water Licence was amended on July 21, 2015. In addition to the terms and conditions set forth in the Type A Water Licence which Baffinland is required to adhere to the, amended Type A Water Licence 2AM-MRY1325 allows for 689,000 cubic metres annually during the Construction Phase; 547,500 cubic metres annually during the ERP; and 353,000 cubic metres annually during the Operations Phase. This is the current Type A Water Licence the mining operation of the Mary River Project operates under and it is valid until June 10, 2025.

18.3.5 Type B Water Licence (2BE-MRY1421)

Type B Water Licence No. 2BE-MRY1421 authorizes Baffinland to undertake mineral exploration, geotechnical drilling programs, ongoing operation, maintenance and upgrades to existing pioneer camps at Steensby Inlet and Mid Rail. Under his water licence Baffinland is authorized to use two hundred and ninety-nine (299) m³ per day of water for all the activities mentioned above. The licence is valid until April 16, 2021 and requires Baffinland to be in compliance with all the terms and conditions set forth in the Licence. This is the current Type B Water Licence exploration and drilling activities associated with the Mary River Project operate under.

18.3.6 Use of Crown Land

Current project components on Crown land include a small portion (about 4.7 km) of the Milne Inlet Tote Road south of Katiktok Lake and exploration sites. Land use authorizations on Crown land are obtained from Indigenous and Northern Affairs Canada (INAC) pursuant to the *Territorial Lands Act* and include Class A land use permits for Project infrastructure and activities on Crown Land, quarry permits for construction and quarry leases to support operation and maintenance of the quarries, and a water lot lease for Project activities, docks, and infrastructure in near-shore waters at Milne Port. There are four (4) Class A land use permits that currently authorize the use of Crown Land associated with the Mary River Project. These four (4) permits include: N2014C0013 for the Crown Land associated with the exploration components of the Project, N2014Q00169 for quarrying along the Crown Land portion of the Tote Road, N2014X0012 for the ore dock and Milne Port foreshore area, and N2014J0011 for the Bruce Head monitoring camp. These Class A land use permits are required to be renewed annually.

In addition to the Class A land use permits mentioned above, a Nunavut Land Lease for the Milne Foreshore area (47H/16-1-2) was obtained from INAC on July 1, 2014 to allow for the development and ongoing operation of the ore dock and ship loader. This Land Lease requires Baffinland to adhere to its terms and conditions and is valid until June 30, 2035.

18.3.7 Fisheries Authorization

Impacts on fish and fish habitat resulting from the Mary River Project must be authorized by the Department of Oceans and Fisheries (DFO) under the *Fisheries Act*. Works for which DFO have oversight on include: water intake structures and sewage outfall structures at construction camps, the Mine Site and Port sites, construction docks and permanent dock structures at Milne Port to support ore and freight operations, as well as numerous watercourse crossings along the Tote Road.

A description of all current potential impacts on fish and fish habitat resulting for the Project have been submitted to the DFO and the DFO has provided direction on a case by case basis. All other future authorizations required from DFO will also be dealt with on a case by case basis.

18.3.8 Explosives

All applications for permits required for the transportation, storage, and use of explosives are submitted directly by the designated explosives contractor for the Project directly to Natural Resources Canada (NRCAN).

18.4 Anticipated Environmental Effects of Stage 3

The authorizations highlighted above have been obtained to account for current activities. In addition to these current activities, the Stage 3 Project is expected to impact the following key biophysical and socio-economic components which will require corresponding changes to approvals. Key impacts that have to be addressed through amended authorizations include:

- Increased employment.
- Increased water consumption.
- Increased waste generation.
- Increased fuel consumption and storage requirements.
- Increased shipping activity.
- Increased power consumption.
- Increase in explosives production and consumption.
- Dust deposition changes.
- Spill risk changes.
- Air emissions changes.

18.4.1 Increased Employment and Skill Development Opportunity

With the increase in activities during the Construction Phase and an increase of tonnes of ore mined, crushed, transported, stockpiled and shipped during the Operations Phase, there will be a corresponding increase in employment opportunities for both skilled and unskilled

labour. Employment opportunities range from ore truck drivers, mechanical and maintenance people to chefs, administration and cleaning staff of the larger accommodation camps.

18.4.2 Increased Water Consumption

There may be an increase in water consumption at both the Mine Site and Milne Port, especially during the Construction Phase. This is a direct result of the increase in manpower, equipment, and infrastructure required to support the development of the Stage 3 Project. As each person and piece of equipment requires a volume of water each day, an increase in the equipment or site population will result in an increase in water consumption.

18.4.3 Increased Waste Generation

The amount of waste generated onsite is expected to increase with the construction of the Stage 3 Project. From a domestic standpoint, this can largely be attributed to increased camp populations at both sites, more equipment, and the importation of greater numbers of perishable and non-perishable goods required onsite. The Operations phase of the Stage 3 Project is expected to see similar waste generation as current operations. From a mine waste standpoint, the Stage 3 Project is expected to see a similar cumulative mine waste generation amount as presented in the FEIS.

18.4.4 Increased Fuel Consumption and Storage Requirements

Project wide fuel storage requirements will increase for the Stage 3 Project. This can be attributed to the addition of locomotives, increased production and mobile equipment usage, and other construction activities onsite.

18.4.5 Increased Shipping Activity

An increase in shipping activity to allow for the winter re-supply of freight and increased open water ore shipment will occur. The main consideration of this is the impact shipping will have on marine mammals and community perception. The increase in traffic will need to be approved by the NIRB and NPC in addition to being discussed with the affected communities, Transport Canada (TC), the Canadian Coast Guard (CCG), Environment Canada (EC) and the Department of Fisheries and Oceans (DFO).

18.4.6 Increased Power Consumption

As a result of the increased infrastructure, camp capacity and workforce, the power consumption will increase.

18.4.7 Increase in Explosives Production and Consumption

Given the increase in production rate it is to be expected that explosives consumption, and therefore, production, will increase proportionally. At this time it has been assumed the current emulsion plant will have sufficient capacity to meet this need.

18.4.8 Increase Disturbance to Fish and Fish Habitat

The development of the Stage 3 Project will result in additional impacts on fish and fish habitat which must be authorized by the DFO under the *Fisheries Act*. Works for which DFO have oversight associated with the Stage 3 Project include: water intake structures and

sewage outfall structures at construction camps, construction docks and permanent dock structures at Milne Port to support ore and freight operations, as well as numerous watercourse crossings along the Tote Road and north rail alignment.

18.4.9 Changes to Dust Fall

There will be increased dust deposition and sedimentation during the Construction Phase of the Stage 3 Project from both trucks' tires along the Tote road surface, until the railway is operational, and from increased crushing and screening of ore and aggregate.

Upon commencement of the Operations Phase of the Stage 3 Project, dust and sedimentation levels are expected to decrease relative to generation levels associated with the current operation based on use of rail vs. truck for terrestrial transportation of ore.

18.4.10 Changes to Risk of Spills

During the Construction Phase of the Stage 3 Project, increased usage of mobile construction equipment will result in an increased risk of hydrocarbon spills.

During the Operations Phase of the Stage 3 Project, the proposed development of the north rail is expected to result in a decrease of risk of trucks overturning. Other changes to spill risks would include:

- Change of spill risk physical locations and management of potential impacts on corresponding nearby sensitive habitats, if any, due to development of new areas for project infrastructure.
- Increase in the risk of spillage of ore into the marine environment from ship loading conveyors associated with the proposed second ore dock.
- Increase risk of hydrocarbon and iron ore spills in the ocean as a result of increased traffic of freight and ore within Eclipse Sound.

18.4.11 Changes to Air Emissions

Stage 3 construction activities will result in increased fuel usage on site. This additional fuel usage will have a corresponding impact to air quality (excluding PM/Dust – see Section 18.4.9).

During the Operations Phase of the Stage 3 Project, the proposed development of the north rail is expected to represent a positive impact on air quality relative to existing operations based on the use of rail vs trucks to haul ore.

In regards to air emission in the marine environment, in both the Construction and Operations phases of the Stage 3 Project, the number of vessels transiting Eclipse Sound during the open water months will increase. This will result in increased SO₂ and NO_x emissions from ore carriers and freight vessels.

18.4.12 Increased Noise

The additional shipping activities associated with the Construction and Operations phases of the Stage 3 Project are likely to result in increased noise and vibration, in the marine environment.

In the terrestrial environment, Stage 3 construction activities are expected to generate localized noise and vibration increases related to construction activities and aggregate production. During the Operations phase, the development of the rail and the eventual discontinued use of trucks to haul ore is expected to change to the noise and vibration profile along the terrestrial transportation corridor.

18.5 Sustainable Development External Approval Requirements for Stage 3

The proposed project changes, and their associated increases and/or decreases in potential environmental and social impacts (see Section 18.4), will require additional or amended project permits and authorizations to be obtained prior to the Stage 3 Project gaining regulatory approval (see Section 18.3 for status of existing approvals) and compliance with Baffinland's Sustainable Development Policy (see Section 18.2). The key activities, permits and authorizations anticipated to be required to be amended or obtained prior to the Stage 3 Project gaining regulatory approval, are described in the subsection below. For the anticipated sequence and schedule of the regulatory approval process, see Section 12.

18.5.1 Consultation

Baffinland is committed to conducting meaningful engagement with stakeholders potentially affected by the Stage 3 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 to identify concerns and develop appropriate mitigation measures to address them is critical for Stage 3 Project execution and regulatory approval.

The objectives of Stage 3 Project 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.
- Reduce business and reputational risks and contribute to the "social licence".
- In order to achieve these objectives as it relates to the Stage 3 Project, a range of engagement methods will be employed by Baffinland, 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 focused 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.
- ◆ Site visits.

Since the original notification of Baffinland’s expansion intentions to the NIRB in October 2014, Baffinland has regularly and directly engaged with the five North Baffin communities and community groups to provide information on the Stage 3 Project 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.
- 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 the Stage 3 Project. 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 Through Ice and Open Water Shipping Workshop also identified some concerns about the possible effects of the Stage 3 Project 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.

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 as it relates to the the Stage 3 Project. Baffinland has specifically committed to return to the five North Baffin communities early in 2017 to provide further and more detailed information respecting the Stage 3 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.

18.5.2 Local Content

In addition to strong engagement, active participation of local communities in the development and implementation of the Stage 3 Project is also critical for Stage 3 Project execution and regulatory approval. Local content requirements (e.g. employment targets, contracting opportunities, education and training, support for communities) are governed by the IIBA and are required to be adhered to during the Stage 3 project execution. Compliance with requirements will be achieved adherence to two (2) key mechanisms, the Inuit Human Resource Strategy and Inuit Procurement and Contracting Strategy.

18.5.2.1 Inuit Human Resource Strategy

Baffinland has worked in collaboration with the QIA on the development of an Inuit Human Resources Strategy (IHRS) and an associated action plan that will have to be implemented during Stage 3 Project execution. The plan has been circulated to the Joint IIBA Executive Committee for approval and implementation will begin following receipt of approval. The IHRS sets out a number of high-level actions associated with the following matters:

- Strengthening stakeholder collaboration.
- Engagement and development.
- Workforce readiness.
- Recruitment and hiring.
- Employee retention.
- Gender balancing.
- Students and youth.
- Continuous improvement.

The principal goal of the IHRS is to maximize Inuit participation in project workforce through the identification of barriers to employment, assessment of skills and training needs, design and development of targeted training and educational programs (both pre-employment and employment) and career advancement initiatives with a particular focus upon Inuit women and youth. Baffinland will work in cooperation with a wide range of stakeholders, including

QIA, the federal and territorial governments, regional educational institutions, other industry players and community groups to implement best practices in training and employment during the execution of the Stage 3 Project. For further information on Human Resource considerations related to the Stage 3 Project, please see Section 14.

18.5.2.2 *Inuit Procurement and Contracting Strategy*

The Inuit Procurement and Contracting Strategy (IPCS) focuses on engagement with Inuit Firms and local contractor employees through five stages of the contracting process: pre-qualification, tender development, request for proposals, execution, and reporting. The IPCS is pending approval by the Joint IIBA Executive and implementation will begin following receipt of approval.

The salient aspects of the IPCS as it relates to Stage 3 project execution are as follows:

- Pre-qualification of Inuit Firms via the completion of a questionnaire which seeks information such as past project experience, core competencies, and contractor health and safety / quality control / risk management programs. This allows Inuit Firms to communicate their strengths to Baffinland so that Baffinland may actively seek contracting opportunities suitable for each Inuit Firm. This also allows Baffinland to promote subcontracting / partnership opportunities between Inuit Firms and southern firms.
- Establishment of contract-specific Minimum Inuit Employment Goals (MIEG) during tender development. This ensures that potential Inuit employment opportunities through contractors are maximized by setting realistic, achievable goals for each contract based on labour requirements of each contract. Penalties and incentive clauses associated with the MIEG are also developed during this stage to ensure appropriate enforcement clauses are present to support the MIEG.
- Negotiation and finalization of the MIEG and associated penalties and incentives during contract negotiations to ensure contractor buy-in. Review of project-specific Contractor Inuit Content Plans to ensure contractor commitment to maximizing local content and to ensure that the contractor has a plan to achieve the MIEG.
- Monthly reporting of contractor Inuit content during execution of the work, and consistent feedback from Baffinland. If a contractor has failed to achieve the MIEG, Baffinland will provide support to the contractor, including provision of resumes of local workers and further improvement and refinement of contractor recruitment / retention / training strategies.

Baffinland's procurement and sustainable development teams will work in cooperation with a wide range of stakeholders, including QIA, Contractors, the federal and territorial governments and other industry players to implement these aspects during the execution of the Stage 3 Project. Ensuring local content commitments and requirements are met in

procurement and contracting initiatives during Stage 3 execution, through adherence to the IPCS, will be critical for project success and approval.

18.5.3 Land Use Plan

The Nunavut Planning Commission (NPC) is responsible for the development, implementation and monitoring of land use plans that guide and direct resource use and development in Nunavut. Stage 3 Project land use changes have been reviewed by the NPC to determine alignment and compliance with the established North Baffin Regional Land Use Plan (NBRLUP). The NPC has determined Stage 3 Project land use changes are not in conformance with the existing NBRLUP. As a result, Baffinland is seeking amendment to the NBRLUP to allow for Stage 3 Project activities. This amendment process is expected to take 3 to 6 months although there is some uncertainty regarding the NPC process and the likelihood for potential delays, therefore, this approval should be well planned and managed for the Stage 3 Project.

18.5.4 Final Environmental Impact Statement – Amendment No. 2

The Environmental Impact Statement (EIS) is part of the environmental assessment process established for a project under the Nunavut Agreement in order to obtain a Project Certificate or amended Project Certificate. Under this environmental assessment process, the proponent of a project describes the surrounding environment and the proposed development. Potential effects are then predicted and mitigation plans are developed. The severity or “significance” of residual effects (effects remaining after mitigation measures have been applied), are evaluated based on established criteria and expert opinion. The Stage 3 Project EIS addendum will need to be prepared using this methodology, and as prescribed in detail by project-specific NIRB EIS Guidelines, considering all project changes and additional environmental and social impacts associated with Stage 3 (e.g. increased shipping traffic, infrastructure changes, workforce changes) and evaluate the potential severity or “significance” of residual effects. Based on expert review and regulatory approval an amended Project Certificate will be issued based on the findings and results of the EIS Addendum review. The Stage 3 Project addendum is in addition to the addendum submitted for ERP.

Main project changes and additional environmental effects associated with the Stage 3 Project that will have to be considered in the EIS Addendum are described in Section 18.4. Once the Stage 3 Project EIS addendum is submitted to the NIRB and stakeholders, consultation, review and processing would be expected to take approximately one (1) year prior to receipt of an amended project certificate. Efficiencies may be achieved as baseline studies have been already conducted and the familiarity the Stage 3 Project Team has with regulators and the EIS Process.

18.5.5 Type A Water Licence

As detailed in Section 18.4, the Stage 3 Project will result in environmental impacts including greater water consumption, fuel consumption and waste generation. Due to these increases, regulatory authorization would be required for the Stage 3 Project scope of work in the form

of an approved amendment to the current Type A water license. To gain this authorization, a Type A Water Licence amendment application is required to be prepared considering all project changes and be submitted to Nunavut Water Board (NWB) for review and approval. The NWB is responsible for the issuance of all water licences in the territory of Nunavut which govern authorization of water consumption, waste generation, and other associated activities. Once the application is submitted review and processing would be expected to take 3 to 6 months after the Stage 3 Project Certificate is amended. If technical meetings and/or hearings are deemed required by the NWB however, this process could take longer. The Type A Water License application process can only commence upon receipt of an Amendment to the Project Certificate to reflect Stage 3 Project activities and components. It is expected efficiencies may be achieved in the application development process due to the familiarity the Stage 3 Project Team has with regulators and the NWB Type A Water Licence application process.

18.5.6 Rail Approval

The Mary River Mine to the Milne Port Railway is not contained within the confines of the mine but extends out to cross public lands for a distance over 100 km and thus, it is not considered a mine railway. Further, the Nunavut Agreement does not devolve authority to incorporate railways to the territory and the railway will therefore be regulated by the Federal Government under the Railway Safety Act. Accordingly, the railway will fall under the jurisdiction of the Canadian Transportation Agency (CTA) and Transport Canada and will be subject to requirements for submissions to obtain approvals to construct, commission and operate the railway.

As a railway under Federal Jurisdiction, the following submissions will be required:

- The filing of a Notice of Railway Works (administered by Transport Canada) – this will be required to allow construction to be commenced.
- The filing of an Application to Construct a Railway Line (administered by the CTA) – this will be required to allow construction to commence.
- The creation of a railway authorized to operate service on the infrastructure (administered by the CTA and Transport Canada) – this will be required to allow the railway to be operated.
- The Approval of Alternate or Supplementary Practices necessary for the signaling system (administered by Transport Canada) – this will be required to allow commissioning of the signaling system into service, if any deviation from standard American Railway Engineering and Maintenance-of-Way Association (AREMA) practice is encountered.

It should be noted that the filing of Notice of Railway Works and the request for Approval of an Application to Construct a Railway Line are both required to be completed for construction to commence.

18.5.7 Fisheries Act Authorization

A DFO authorization is required to be obtained from the DFO for any additional in-water work associated with the Stage 3 Project scope of work. The approval process is not expected to be more restrictive in terms of requirements or timing than that already known and planned for by the Stage 3 Project Team.

18.5.8 Arctic Waters Pollution Prevention Act

Navigation in coastal waters within Canadian jurisdiction north of latitude 60°N is governed by the Arctic Shipping Pollution Prevention Regulations (ASPPR), under the Arctic Waters Pollution Prevention Act. All vessels above 100 tonnes that navigate Canadian Arctic waters must comply with, including reporting requirements, ASPPR requirements. All vessels used in the Stage 3 Project would therefore have to ensure compliance with both ASPPR, comply with the Arctic Waters Pollution Prevention Act, and ensure no waste is deposited in arctic water, including during the trans-shipment process. The Arctic Waters Pollution Prevention Act defines waste as any substance that, if added to any water, would degrade or alter or form part of a process of degradation or alteration of the quality of that water to an extent that is detrimental to their use by man or by any animal, fish or plant that is useful to man. It would have to be ensured that spilled ore does not meet this criteria or an exemption is issued.

18.6 Operational Control for Sustainable Development of Stage 3

In addition to the key project permits and authorizations anticipated to be required to be amended or obtained prior to the Stage 3 Project gaining regulatory approval, Baffinland must also ensure its operational control mechanisms for sustainable development are also updated to reflect project changes (as detailed in Section 18.4). Management plans are the primary mechanism Baffinland uses to ensure operational control of site development from a sustainable development perspective. The documents that have been identified which will require update prior to Stage 3 Project execution include, but are not limited to:

- Contractors Environmental Management Requirements.
- Waste Management Plan for Construction, Operation and Closure.
- Hazardous Material and Hazardous Waste Management Plan.
- Fresh Water Supply, Sewage and Wastewater Management Plan.
- Emergency Response Plan and Spill Contingency Plan.
- Surface Water and Aquatic Ecosystems Management Plan.
- Oil Pollution Emergency Plan – Milne Inlet Fuel Storage Facility.
- Environmental Management Plan.
- Environmental Monitoring Plan.
- Construction Environmental Protection Plan

- Interim Mine Closure and Reclamation Plan.
- Shipping and Marine Wildlife Management Plan.
- Terrestrial Management Plan (due to additional road/rail traffic).

The subsection below provides discussion on the objective and scope of these plans and the anticipated updates required to reflect the Stage 3 Project. Once these updates are developed and approved, they will have to be communicated and implemented by site based personnel.

18.6.1 Contractors Environmental Management Requirements

The objective of the contractors environmental management requirements is to identify and establish the procedures, roles and responsibilities, as it relates to the environment, that the Contractor will be required to follow during all Project-related aspects of their work activities. This will be accomplished through the implementation of the Project's EMS (Environmental Management System) or, the Contractor(s) own EMS, which conforms to the Project's EMS and management plans. See Section 18 for further discussion regarding contractors environmental management requirements.

18.6.2 Environmental Protection Plan

The Environmental Protection Plan includes all the work instructions, standard operating procedures and protocols that are implemented to ensure that environmental impacts are minimized throughout the life of the Project. The plan provides an overview of both preventative measures taken to protect the environment as well as mitigation measures that will occur in the event that any environmental damages do occur. This plan may require minor updates to take into account any developed mitigation strategies from monitoring programs/ baseline studies, as well as, incorporate any applicable project conditions, requirements or commitments dictated in the FEIS Amendment #2 (Stage 3 Project) and Type A Water Licence amendment process.

18.6.3 Shipping and Marine Wildlife Management Plan

The Shipping and Marine Wildlife Management Plan has been developed to address the issues of concern to Inuit with respect to shipping; establish rules and procedures applicable to shipping during the construction, operational and decommissioning phases of the Project; and, provide for Inuit involvement in the planning, environmental management and decision-making processes related to shipping. Due to changes in shipping schedule and strategy for the Stage 3 Project, the Shipping and Marine Wildlife Management Plan will have to be updated to ensure that:

- It incorporates and describes the means whereby Baffinland will ship construction materials and equipment to the Milne Port Site during all shipping seasons.
- Describes the management of the shipping operation, including the design and contract of a larger Cape-size iron ore carriers, to be employed for during the open water.

- Address the management, routing and operation of ships and describes how the vessels will navigate reflective of the Stage 3 Project shipping strategy; and
- Describe the monitoring and mitigation measures to be employed in addressing concerns related to marine wildlife, including mammals and birds that have been raised from baseline studies, any applicable project conditions, requirements, or commitments dictated in the FEIS Amendment #2 (Stage 3 Project) process.

18.6.4 Interim Mine Closure and Reclamation Plan

The current Interim Mine Closure and Reclamation Plan has been created in accordance with all applicable requirements including the Qikiqtani Inuit Association (QIA) Abandonment and Reclamation Policy for Inuit Owned Lands and commitments made by Baffinland during previous technical meetings with stakeholders and government. The Interim Mine Closure and Reclamation Plan addresses all project-related activity areas and infrastructure related to the Mary River Project. In order to effectively plan for project closure and reclamation of Stage 3 activities, changes to site infrastructure, equipment, site layout, and storage facilities, etc. will need to be addressed in the Interim Mine Closure and Reclamation Plan to ensure all Stage 3 scope of work is considered and reclamation activities are planned for to demonstrate that stated reclamation objectives can still be met.

Also, in association with the Interim Mine Closure and Reclamation Plan, a closure and reclamation security liability estimate that considers the reclamation cost estimated to be required to meet reclamation objectives stated in the Interim Mine Closure and Reclamation Plan. This closure and reclamation security liability estimate is required to be updated annually to take into consideration all project changes anticipated for the upcoming project year. This security estimate will have to be updated on an annual basis throughout the life of the Stage 3 Project based on the scope of work anticipated to occur in an upcoming year.

18.6.5 Terrestrial Wildlife Management Plan

This document has been developed to provide management guidelines and strategies to deal with all terrestrial based environmental issues facing the Mary River Project.

The main issues addressed in this document are the interaction with and monitoring of vegetation, birds and terrestrial wildlife. This is particularly relevant to both the caribou and bear population on Baffin Island. Given the sensitive nature of the arctic ecosystem it is essential that these species be monitored closely to ensure that the Stage 3 Project has a minimal impact on their safety and lifecycle.

As a management plan the Terrestrial Environmental Management Plan details the required techniques and procedures for monitoring local wildlife, recording results, and reporting procedures.

This management plan needs to be updated to reflect the mitigation strategies required to safeguard terrestrial fauna and flora from the impacts of rail traffic.

18.6.6 *Emergency Response Plan and Spill Contingency Plan*

The Emergency Response Plan and Spill Contingency Plan has been developed to identify potential spills and emergencies that could arise during construction and operation of the Mary River project on land or freshwater and to establish the framework for responding to these situations. The response procedures are specific to spills on land, water, snow and ice. However, the general procedure involves the following steps: source control, control of free product, protection, cleanup of the spill and reporting the spill. The Plan also identifies roles and responsibilities, potential spill analysis, and reporting requirements.

Given the increased fuel storage, infrastructure and mobile equipment, this plan will need to be reevaluated to ensure that current procedures and equipment are capable of adequately handling spills of the appropriate volume. Any applicable project conditions, requirements or commitments dictated in the FEIS Amendment #2 and Type A Water Licence amendment process would also have to be included.

18.6.7 *Surface Water and Aquatic Ecosystems Management Plan*

This Plan outlines the processes and procedures to document the quality and quantity of water that will interact with Project components, and includes the management practices to minimize the adverse effects on receiving water systems, as well as the aquatic ecosystems and fish and fish habitat. The Plan details the management of runoff collection systems at Project facilities and addresses point and non-point discharges to surface waters from Project components and discharge quality and quantity relative to the receiving water system. It outlines specific mitigation measures required for stream/river crossings works, as well as, for general operation and construction activities in proximity of water courses. The general mitigation measures for sediment and erosion control that will be applied throughout the duration of the Project construction phase are discussed.

This Plan will have to be updated considering changes to project drainage and discharges resulting from Phase 2 scope of work. In addition, the incorporation of any ongoing baseline study results, applicable project conditions, requirements or commitments dictated in the FEIS Amendment #2 and Type A Water Licence amendment process, would also have to be included.

18.6.8 *Aquatic Effects Monitoring Plan*

This Aquatic Effects Monitoring Plan (AEMP) describes how monitoring of the aquatic environment will be undertaken. The AEMP was identified as a follow-up monitoring program in Baffinland's FEIS and is prescribed by Baffinland's Type A Water Licence Amendment #1. The AEMP is a monitoring program designed to:

- Detect short-term and long-term effects of the Project's activities on the aquatic environment resulting from the Project.
- Evaluate the accuracy of impact predictions.
- Assess the effectiveness of planned mitigation measures.

- Identify additional mitigation measures to avert or reduce unforeseen environmental effects.
- The AEMP focuses on the key potential impacts to freshwater environment valued ecosystems components (VECs), as identified in the FEIS and Addendum #1 to the FEIS for the Early Revenue Phase (ERP). The freshwater VECs are:
 - ♦ Water quantity.
 - ♦ Water and sediment quality.
 - ♦ Freshwater biota and fish habitat.

The AEMP has been structured to serve as an overarching ‘umbrella’ that conceptually provides an opportunity to integrate results of individual but related aquatic monitoring programs. This plan will need to be updated to reflect monitoring program changes required to cover all activities included in the Stage 3 Project in addition to any applicable project conditions, requirements or commitments dictated in the FEIS Amendment #2 (Stage 3 Project) and Type A Water Licence amendment process.

18.6.9 Oil Pollution Emergency Plan – Milne Inlet Fuel Storage Facility

The Milne Inlet Port Oil Pollution Emergency Plan (OPEP) was developed to specifically assist in implementing measures to protect the marine environment and minimize impacts from potential spill events. The plan outlines potential spill scenarios, and provides specific procedures for responding to spills while minimizing potential health and safety hazards, environmental damage, and cleanup costs. The OPEP provides instructions to guide all personnel in emergency spill response situations, defines the roles and responsibilities of management and responders, and outlines the measures taken to prevent spills, the related exercise and evaluation program, and the mechanism for regular updates to the plan. The OPEP is updated on an annual basis. The current OPEP plan will need to be updated to account for the increased mobile equipment, shipping, fuel transfers, infrastructure, and fuel storage requirements associated with the Stage 3 Project.

18.6.10 Waste Management Plan for Construction, Operation and Closure

The aim of the Waste Management Plan for Construction, Operation and Closure is to implement a sound waste management program that will focus upon the principles of Reduction/Recovery/Reuse/Recycling. The residual waste generated by the Stage 3 Project activities will be disposed of in a landfill/landfarm, incinerated or shipped off-site to southern Canada for final disposal, treatment, or recycling. This Waste Management Plan deals with waste generated by the Mary River Project including solids, semi-solids and sludge. The Waste Management Plan presents the various disposal methods, the types and expected quantities of waste produced and the ultimate disposal of the waste stream. The Plan also defines the roles and responsibilities, specific requirements, and monitoring controls for managing solid and hazardous wastes generated by the Project. It also presents a strategy

for adaptive management and continuous improvement. The Waste Management Plan Annex's include:

- Incinerator Operation Information.
- Mary River Project Landfill Operating Manual.
- Landfarm Operation Information.

Prior to execution of the Stage 3 Project, this plan would need to be adjusted accordingly to reflect project changes and any applicable project conditions, requirements or commitments dictated by both FEIS Amendment #2 (Stage 3 Project) and Type A Water Licence amendment process. Any changes to capacity of waste management and incineration facilities would also need to be reflected and change communicated to pertinent staff and contractors.

18.6.11 Hazardous Material and Hazardous Waste Management Plan

This Hazardous Materials and Hazardous Waste Management Plan deals with wastes generated by the Mary River Project including: fuel, used oils, explosives, antifreeze, used chemical products, biomedical waste and spills clean-up materials. The management of sewage effluent and sludge from the sewage treatment plants is the subject of the Waste Fresh Water Supply, Sewage and Wastewater Management Plan.

The Hazardous Waste Management Plan presents the various disposal and treatment methods, the types and expected quantities of waste produced and the ultimate disposal of the waste stream. The Plan also defines the roles and responsibilities, specific requirements, monitoring controls for managing solid and hazardous wastes and strategies for adaptive monitoring and continuous improvement. The volumes of all hazardous waste streams as well as the size/capacity of both treatment and storage facilities, would need to be adjusted to handle the increased waste generation as a result of increased project activities and workforce which would have to be reflected in the document.

18.6.12 Fresh Water Supply, Sewage and Wastewater Management Plan

The management of sewage effluent and sludge from the sewage treatment plants is the subject of the Fresh Water Supply, Sewage and Wastewater Management Plan. This document was developed to provide a management strategy for fresh water supply and wastewater treatment/disposal at the various camps to be developed for the Mary River Project during the construction and operation phases. In addition, contingency measures are addressed and details given in regards to sampling, monitoring and reporting requirements.

All expected volumes of water consumed and sewage treated and discharged will need to be updated to reflect the Stage 3 Project. In addition, the capacities of the various plants, pumps, and other infrastructure would need to be revaluated to ensure that increased demand can be met and be reflected in the document. Any applicable project conditions, requirements or commitments dictated in the FEIS Amendment #2 and Type A Water Licence amendment process would also have to be included.

18.7 Conclusion

As the Stage 3 Project represents an expansion to an existing operation, the intention of this section has been to summarize the current operational control and regulatory approval mechanisms obtained by the Mary River Project for its existing operation and identify the changes required to them to account for the anticipated changes to the biophysical and socioeconomic environment resulting from the Stage 3 Project.