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Published by the Nunavut Impact Review Board, Cambridge Bay, Nunavut
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To download copies of the NIRB *Standard Guidelines for the Preparation of an Impact Statement* visit www.nirb.ca
Email: info@nirb.ca or call toll-free 1-866-233-3033

Preamble and Limitations:

The Standard Impact Statement Guidelines reflect the Nunavut Impact Review Board's (NIRB or Board) jurisdiction under Article 12, Sections 12.2.23(h) and 12.5.2 of the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)* and the requirements of ss. 26(1)(e) and 101 of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14 (*NuPPAA*).

The Standard Impact Statement Guidelines are not intended to be a legal interpretation of the *Nunavut Agreement* nor the *NuPPAA* and do not limit the powers of the NIRB to establish and adopt by-laws and rules for its own internal management and procedures.

The common-law duty of procedural fairness applies to all decision-making and proceedings of the NIRB. Procedural fairness and other administrative functions of the NIRB are addressed in a companion document titled the *Rules of Procedure*.

The NIRB will review the Standard IS Guidelines at a minimum every five years. The latest version of the Guidelines will be available on the NIRB's website as they become available.

Readers are encouraged to visit the NIRB's website at www.nirb.ca for updates and the latest information on the impact review process as well as focused guidance documents.

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DEFINITIONS AND TERMS

Definitions of key terms for the purpose of the Standard Impact Statement Guidelines are provided below. A complete list of definitions and abbreviations are available in the NIRB's *Technical Guide Series: Terminology and Definitions* ([NIRB, 2018](#)).

<i>Alternatives</i>	Different ways, such as activities or location, of carrying out a proposed project.
<i>Amendment</i>	Important changes proposed to a Project that was previously assessed by the Nunavut Impact Review Board. These types of changes often require changes to the regulatory approvals for the Project, such as changes to the Project Certificate issued by the NIRB for the Project.
<i>Authorizing Agencies</i>	A government agency, Designated Inuit Organization (DIO) or any other body that has the authority to issue a permit, lease, licence or grant approval to a Proponent to conduct some physical work or physical activity in relation to a project proposal and includes Regulatory Authorities as defined under <i>NuPPAA</i> .
<i>Baseline</i>	Pre-project biological, physical, or human conditions that can be used to measure both positive and negative changes from the project.
<i>Community Knowledge</i>	Reflects the wisdom and experience of community members, including observations and understandings about the environment and how knowledge is generated, stored, applied, and shared with others.
<i>Ecosystemic¹</i>	Relating to the complex of a natural community of living organisms and its environment functioning as an ecological unit in nature.
<i>Environment</i>	<p>A holistic view of the components of the Earth that includes the complex web of inter-relationships between the living and non-living components which sustain all life on earth, including the social, cultural and health aspects of human group existence. Components of the Earth include:</p> <ul style="list-style-type: none">(a) land, water and air, including all layers of the atmosphere;(b) all living and non-living matter and living organisms, including plant, animal, and human life;

¹ This may also be referred 'biophysical' by some parties in Nunavut, particularly for ease of interpretation into Inuktitut.

(c) the social, economic and cultural conditions that influence the life of people or a community insofar as they are related to the matters described in (a) and (b);

(d) the interacting natural systems that include components referred to in (a), (b) and (c).

<i>Historical baseline</i>	Biological, physical, or human conditions that existed prior to industrial development.
<i>Holistic</i>	That something (e.g. the environment) is made up of interconnecting parts that can only be explained by looking at the whole and not the individual parts.
<i>Impact</i>	<p>As directed in the <i>NuPPAA</i> S. 90.(a) through (j), the Board must take into account specific factors related to impacts. Terms associated with determining impacts can be further described as follows.</p> <p><i>Direct Impacts</i> - refer to changes in the environmental components that result from direct cause-impact consequences of interactions between the project activities and the environment. For example, the construction of a quarry site may see direct loss of local vegetation and disturbance to soils and aquatic environments.</p> <p><i>Indirect Impacts</i> - result from cause-impact consequences of interactions between the environment and indirect impacts. For example, the impact of pollution may not only be seen directly in the loss of local vegetation, but indirectly as a degradation of the health, culture, and social structure of the local people.</p> <p><i>Cumulative Impact</i> - refer to the accumulation of impacts caused by past, existing, proposed, and reasonably foreseeable projects, including activities associated with the proposed project.</p>
<i>Impact Statement</i>	A detailed document that describes the proposed project, identifies, predicts, evaluates, and communicates information about the potential impacts to the ecosystemic and socio-economic environment and well-being, and describes mitigation measures and monitoring and reporting methods.
<i>Indigenous Groups asserting s. 35 rights</i>	Inuit and Indigenous rights holders with asserted and established Aboriginal and Treaty rights of the Aboriginal Peoples of Canada as recognized and affirmed under the Constitution Act, 1982.
<i>Indigenous Knowledge</i>	The accumulated body of knowledge, observations, and understandings about the environment and the relationship of living beings with one another and with the environment, that is rooted in the way of life of Indigenous peoples.

<i>Inuit Qaujimajatuqangit</i>	That which Inuit have always known to be true. ^{2,3} Inuit Qaujimajatuqangit is more than just the information produced and encompasses all aspects of way of life.
<i>Inuktut or Inuktitut</i>	Aboriginal peoples of northern Canada and Greenland. In the context of Nunavut, for the purpose of these Guidelines, meaning those receiving benefits under the <i>Nunavut Agreement</i> .
<i>Inuit</i>	Aboriginal peoples of northern Canada and Greenland. In the context of Nunavut, for the purpose of these Guidelines, meaning those receiving benefits under the <i>Nunavut Agreement</i> .
<i>Local Study Area</i>	The local study area is that area inclusive of, and beyond the site study area, where there exists the reasonable potential for direct impacts due to project activities from any phase of the proposed project, ongoing normal activities, or to possible abnormal operating conditions.
<i>Mitigation measure</i>	Actions taken to eliminate, reduce, control, or offset the adverse impacts of a project (e.g. treating discharge water from a mine).
<i>Nunavummiut</i>	Residents of Nunavut.
<i>Nunavut Agreement</i>	The “Agreement Between the Inuit of the Settlement Area and her Majesty the Queen in Right of Canada”, including its preamble and schedules, and any amendments to that agreement made pursuant to it.
<i>Party</i>	The participants involved in the Board’s assessment of a project proposal or other Board Proceedings and may include the Proponent, Designated Inuit Organizations, Regulatory Authorities, Authorizing

² Karetak, J., Tester, F., & Tagalik, S. (Eds.). (2017). Inuit Qaujimajatuqangit: What Inuit Have Always Known To Be True.

³ Although there are many descriptions of Inuit Qaujimajatuqangit, the Board recently cited, with approval the following passage expressing several central concepts fundamental to the understanding of Inuit Qaujimajatuqangit:

Inuit Qaujimajatuqangit contains Inuit oral history, what has been passed down verbally over centuries of Inuit Knowledge. Inuit Qaujimajatuqangit encompasses both the past and the present. It cannot be separated from within Inuit society. It is part of our Inuit identity. Inuit Qaujimajatuqangit is Inuit knowledge that is both living and adapting and very much part of our present day and present-day life. It is how Inuit live and see the world. It is distinct and specific to the Arctic environment. It cannot be duplicated anywhere else, nor can it be interpreted or represented by non-Inuit without consent from those Inuit to whom that knowledge is gained. Inuit Qaujimajatuqangit is verified by Inuit for Inuit

(R. Paton, Qikiqtani Inuit Association, as cited by the NIRB in the NIRB’s Reconsideration Report and Recommendations for Baffinland’s Phase 2 Development Proposal, Baffinland Iron Mines Corporation Project Certificate No. 005, NIRB File No. 08MN053, May 13, 2022, at p. 35, footnote 35).

Agencies, Intervenor, an Interested Corporation or Organization, or the public.

Phased Development In phased development, a Project Proponent periodically seeks adjustments to project activities and timelines at various stages or “phases” over the course of the project lifecycle. Phased development is a way of developing industrial projects (such as mines) in a flexible manner by putting in several check in points (or phases) where the Project Proponent revisits whether these adjustments can be developed in a sustainable and cost-effective manner.

Potentially impacted community A community or communities with the potential to be impacted, either positively or negatively, by a proposed project or development. Such communities may be defined physical entities or comprised of dispersed populations in the area of influence of a project.

Precautionary Principle Where there are threats of serious or irreversible damage, lack of full scientific certainty *shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation*” [emphasis added].⁴ The precautionary principle ‘errs on the side of caution’ and reflects the potential for adverse environmental impacts, even when the risk of such impacts cannot be definitively proven.

Public An inclusive term that consists of interested parties, the general public, including any person in a potentially impacted community, and organized community or other interest groups.

Reasonably foreseeable future development Projects or activities that are currently under regulatory review or that will be submitted for regulatory review in the near future, as determined by the existence of a proposed project description, letter of intent, or any regulatory application filed with an authorizing agency ([NIRB, 2007](#)).

Regional Study Area The area within which there exists the potential for direct and indirect ecosystemic and socio-economic impacts of the proposed project that may interact with the impacts of other projects, resulting in the potential for cumulative impacts.

Residual Impacts Impact from a project after mitigation measures have been applied.

⁴ UN (United Nations). 1972. *Rio declaration on environment and development*. In: Report of the United Nations Conference on the Human Environment, Stockholm, pp. 5-16.

<i>Significance</i>		Whether a proposed project could have a notable effect on one or more aspects of the environment. Factors to consider defined in s. 90 of the <i>NuPPAA</i> .
<i>Site study area</i>		The proposed project footprint (i.e. where project activities would be undertaken including the project's proposed facilities, buildings and infrastructure, transportation corridors, access roads, shipping routes, etc. and any energy generation/transmission, water withdrawal and deposition, and granular or other natural resource gathering to support project physical works and activities).
<i>System</i>		Interacting natural systems that include biological, physical, social, and economic components of the environment (e.g. a river system includes water, soil, air, fish, place for fishing etc.).
<i>Socio-economic</i>		Refers to social, economic, cultural, health, and well-being aspects of the environment. For suggested individual components, see Section 4.6.2.1.
<i>Threshold of impact</i>		The point when a change reaches an established point of significance.
<i>Threshold for mitigation</i>		When measures will be put into place.
<i>Transboundary impacts</i>		Impacts linked directly to the activities of a project or related works conducted inside the designated area, which occur across international, territorial/provincial or regional boundaries, or impacts occurring within the designated area from project related works which occur wholly or partly outside of the designated area.
<i>Valued Socio-Economic Components (VSECs)</i>		Those aspects of the socio-economic environment considered to be of vital importance to a particular region or community, including components relating to the local economy, health, demographics, traditional way of life, cultural well-being, social life, archaeological resources, existing services and infrastructure, and community and local government organizations.
<i>Well-being</i>		<p>Specific indicators of well-being for a particular impact assessment must be identified by the potentially impacted communities, in collaboration with the Regional Inuit Association. Factors to be assessed at the individual and community levels typically include, but are not necessarily limited to, the following:</p> <ul style="list-style-type: none"> • Inuit Qaujimajatuqangit principles and values; • Cultural continuity and language;

- Social, physical and mental health;
- Connection to the land (including Inuit food harvesting and Inuit food security/food sovereignty); and
- Access to training, education and employment opportunities.

PART 1 – INTRODUCTION

Purpose and Target Audience

The Standard Impact Statement Guidelines (the Guidelines) were developed to assist Proponents in preparing and submitting information required by the Nunavut Impact Review Board (NIRB or Board) for a Review process established under Article 12, Part 5 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada* (the *Nunavut Agreement*) and Part 3 of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (NuPPAA).

An Impact Statement is intended to supply all the information that the NIRB is required by the NuPPAA to consider (s. 103 of the NuPPAA).

Scope of the Guidelines

The Standard Impact Statement Guidelines detail:

- The two primary pathways Proponents can take to submit an Impact Statement (see [Section 1.4](#));
- Key principles or values that guide the NIRB’s impact assessment processes (see [Section 2.0](#));
- The NIRB’s expectations for the overarching study strategy for Proponents when developing the Impact Statement (see [Section 3.0](#)); and
- The NIRB’s requirements and guidance for the preparation of an Impact Statement by section (see [Section 4.0](#)).

Goals and Benefits of the Guidelines

The Standard Impact Statement Guidelines provide clear, consistent, and transparent requirements and will be used as the basis for all Impact Statements for projects undergoing a Review under the *Nunavut Agreement* and the NuPPAA. These Guidelines are not specific to any technology or development. The NIRB can also issue project-specific Guidelines that would be appended to the Standard Impact Statement Guidelines during a Review Process as well as for amendments to previously approved projects. Project-specific guidance could include, but is not limited to:

- Incorporation of direction provided by the Responsible Minister(s) in referring a Proposal to a Review process;
- Specific direction, such as that related to potentially impacted communities outside of the Nunavut Settlement Area;
- Restrictions that could impact project design (e.g., parks or conservation areas);
- Specific technology or activities; or
- Additional requirements related to climate change assessment.

With Standard Impact Statement Guidelines, Proponents can begin developing an Impact Statement prior to the NIRB’s issuance of project-specific guidelines. These Guidelines further enable Proponents to submit an Impact Statement in final form, or alternatively provide an original project proposal for screening, that is sufficiently detailed to contain the information required for an Impact Statement (ss. 101(2) and 103 of the *NuPPAA*). If a Proponent submits a project proposal during the Screening phase with the purpose of meeting the requirements of an Impact Statement, the NIRB would assess the need for additional project-specific guidance by considering the information submitted and any direction provided by the Minister pursuant to Section 12.5.1 of the *Nunavut Agreement* and s. 96(1) of the *NuPPAA*. If the project proposal has sufficient information to conduct a review of the project, the Board may determine that it is unnecessary to issue additional project specific guidance. As detailed in [Section 1.4](#), the steps in the NIRB’s Review process may be amended if the initial document submitted by the Proponent meets the requirements of an Impact Statement and is accepted as a Final Impact Statement.

1.1 Document Key

The Impact Statement Guidelines are divided into four sections:

Part 1: Introduction

Purpose: Purpose, scope, and goals and benefits of the Standard Impact Statement Guidelines and NIRB process information

- Purpose, scope, and goals and benefits of the Standard Impact Statement Guidelines
- Legislative requirements
- Description of an Impact Statement
- Pathways for Proponents to submit an Impact Statement
- NIRB’s approach to Phased Development and Amendments to approved Projects

Part 2: Guiding Principles

Purpose: Outlining the key principles for the development of an Impact Statement and expectations for Proponents.

- Inuit Qaujimajatuqangit
- Public Engagement
- Precautionary Principle
- Sustainable Development

Part 3: Preparation of the Impact Statement

Purpose: Outlining NIRB expectations for the overarching study strategy for Proponents when developing the Impact Statement

- Data and information collection, analysis, and documentation
- Use of existing information

Part 4: The Impact Statement

Purpose: Impact Statement requirements and guidance by section

- Content and Presentation
 - Requirements for how information should be presented
- Introductory Sections
 - Proponent information, land tenure and location, and regulatory context
- Project Description
 - Project description and scope of the Project
 - Purpose of project, alternatives, future development
 - Economic and employment information
- Impact Assessment Methodology – To inform the impact assessment and develop the Impact Statement
 - Conducting public engagement
 - Collection, protection, and use of Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Information
 - Scope of the assessment, including valued components and spatial and temporal boundaries
 - Description of the environment – Development of baseline conditions of the environment
 - Impact Assessment Approach – Methods and expectations for impact assessment and impact prediction
- Project Environment and Impact Assessment – Information requirements related the ecosystemic and socio-economic environment, human health and environmental risk assessment, and accidents and malfunctions
- Environmental Management System: Overarching approach to managing impacts and developing plans specific to environmental management, environmental protection, mitigation and monitoring, and closure and reclamation

Appendix A: Conformity Table

Purpose: Template for Proponent to use and submit with their Impact Statement.

Appendix B: Proponent Requirements Checklist

Purpose: High-level list of requirements for Impact Statements as detailed in Section 4.0

Appendix C: Engagement Organizations

Purpose: List of organizations for consideration when engaging with communities within Nunavut as well as in neighbouring jurisdictions

Appendix D: Checklist to Demonstrate Meaningful Engagement

Purpose: High-level list for conducting meaningful engagement

Appendix E: Baseline and Impact Assessment Considerations

Purpose: Considerations for individual valued components for the ecosystemic and socio-economic environments when developing baselines and conducting impact assessments

Text Boxes

Coloured text boxes are used to highlight requirements, important information and process details, and additional guidance information in the following styles:

Requirements for Impact Statement in Green Tables

Specific requirements for an impact statement will be identified at the beginning of each section in green tables and will correspond to requirements in the conformity table template (available in [Appendix A](#)). **Proponents must submit a conformity table with the impact statement that identifies which section in the document each requirement can be found.** Proponents are encouraged to use the conformity table template available in Appendix A. The table should be amended as needed to reflect individual projects (including any project specific requirements issued).

Considerations in Blue Text Boxes

Blue text boxes highlight important information for consideration, including process details.

References to Topic-Specific Guidance Documents in Red Text Boxes

Proponents are encouraged to periodically check the NIRB's website to ensure they are reviewing the most current guidance materials: www.nirb.ca.

The NIRB recommends that Proponents consider the following guidance materials when developing their Impact Statements:

- Technical Guide Series: Proponent's Guide
- Public Engagement Guidance Document
- Inuit Qaujimajatuqangit Guidance Document
- Socio-Economic Toolkit

1.2 Legislative Framework

The Standard Impact Statement Guidelines were developed pursuant to Article 12, Section 12.2.23(h) of the *Nunavut Agreement* and ss. 26(1)(e) and 101 of the *NuPPAA*. The Guidelines are intended to meet the objectives of Article 12, Section 12.5.2 of the *Nunavut Agreement* and s. 101(3) of the *NuPPAA*.

The NIRB's mandate is to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area and to protect the ecosystemic integrity of the Nunavut Settlement Area. The NIRB must also consider the well-being of residents of Canada outside the Nunavut Settlement Area. The NIRB's impact assessment processes are designed to:

- a) Screen project proposals in order to determine whether or not a review is required;
- b) Gauge and define the extent the regional impacts of a project;
- c) Review the ecosystemic and socio-economic impacts of project proposals;
- d) Determine, on the basis of its review, whether proposed projects should proceed and, if so, under what terms and conditions, and then report its determination to the Minister; and
- e) Monitor projects in accordance with the provisions of Article 12, Part 7 of the Nunavut Agreement.

1.3 Overview of an Impact Statement

An Impact Statement is a written document that:

1. Describes the project, including the need, purpose, and associated components and activities as well as alternatives;
2. Identifies, predicts, evaluates, and communicates information about the potential impacts of a project on human health and well-being and ecosystemic and socio-economic impacts;
3. Details the identification and development of mitigation measures, which are measures designed to eliminate, reduce, control, or offset potentially adverse impacts of an activity or project and enhance positive impacts; and
4. Describes monitoring and reporting methods to verify the accuracy of impact predictions.

Proponents are required to submit an impact statement satisfying the requirements of an impact statement for all projects undergoing a NIRB Review.

The Impact Statement is a tool used by the NIRB to evaluate the potential impacts of a project proposal and to ensure the integrated planning of development proposals. The NIRB relies on the Proponent's Impact Statement and information provided by Intervenor and potentially impacted communities, the public, and interested individuals. This information is used to inform the NIRB's Report to the responsible Minister(s) when the Board's Review is completed. It is the

Proponent's responsibility to provide sufficient data and analysis on potential impacts to the ecosystemic and socio-economic environment resulting from the proposed project. The Impact Statement must be informed by available scientific knowledge, Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge. Proponents are required to engage potentially impacted communities about projects and activities in a way that informs them, consults with them, and enables them to participate to some degree in the development of the project.

These Guidelines detail the nature, scope, and extent of information required in an impact statement as well as guidance to successfully fulfill the NIRB's requirements.

1.4 Pathways for Impact Statement Submission

There are two primary pathways through which a Proponent may submit an impact statement, or a project proposal satisfying the requirements of an impact statement, for projects subject to a NIRB review:

1. *Draft* impact statement is submitted during NIRB Review following NIRB issuance of project-specific guidelines (Standard Approach)
2. Project proposal satisfying the requirements of an impact statement is submitted during NIRB Screening

The following steps provide an overview of the NIRB's general approach to conducting a Review. The NIRB retains flexibility in terms of its process and ensuring it has the information necessary to conduct a fulsome review in any given case, including the ability to add, remove, or modify steps in the review process as may be necessary. The review process may also be modified as required to coordinate the NIRB review with other regulatory partners such as the Nunavut Planning Commission and the Nunavut Water Board. A Proponent's Guide detailing the NIRB's processes and Proponent requirements is available at

<https://www.nirb.ca/content/guides>.

1.4.1 Draft Impact Statement Submitted During Review (Standard Approach)

A standard NIRB Review consists of three phases (individual steps detailed in [Figure 1](#)). Typically, the Proponent prepares two forms of the Impact Statement: an initial *Draft*; and following information requests, public consultation, technical review, and commenting on the *Draft*, incorporates agreed-upon changes into a Final Impact Statement. All three phases include public participation.

1. Phase 1: Scoping and Guidelines Creation

The first step in the NIRB's review process is to establish the scope of the assessment process and the project, including the potential impacts associated with development of the project. This

step typically happens in combination with the development of Project-Specific Impact Statement Guidelines and further refines the detail of the scope issued during Screening. During the Scoping and Guidelines Creation stage, the NIRB would issue draft project-specific Impact Statement Guidelines in English, French, and Inuktitut and solicit written and oral feedback to inform their finalization. Once finalized, the Project-Specific Guidelines would be appended to the Standard Impact Statement Guidelines.

2. *Phase 2: Draft Impact Statement*

Once the NIRB receives a *Draft* Impact Statement from a Proponent, it would conduct a conformity review of the Impact Statement to the Guidelines issued, seeking to identify any significant information gaps and/or change of scope. Once the NIRB confirms that the *Draft* Impact Statement conforms to the Guidelines, a technical review of the content of the Impact Statement is conducted, which typically includes soliciting written comments, community information sessions, a technical meeting, and a pre-hearing conference and Community Roundtable. During a pre-hearing conference the Proponent, Authorizing Agencies, parties, and the general public (through the Community Roundtable portion) are given an opportunity to provide the Board with confirmation regarding the issues that were resolved during the technical meeting, and to identify any outstanding issues to be addressed through the submission of the Final Impact Statement and specific requirements for the final phase of the Review.

3. *Phase 3: Final Impact Statement*

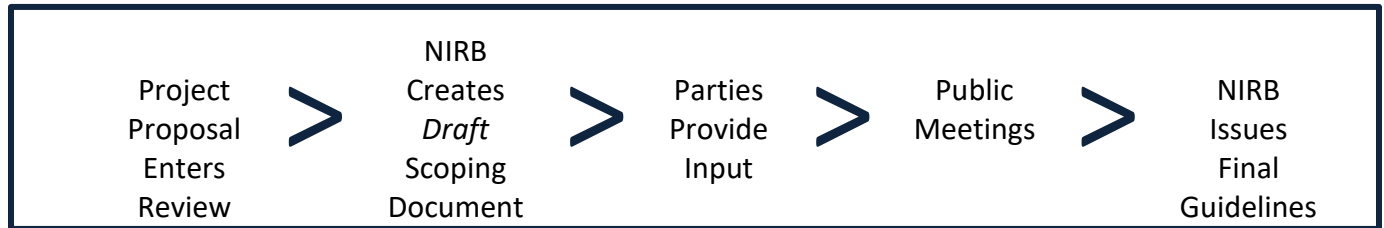
It is the responsibility of the Proponent to prepare the Final Impact Statement in accordance with the Impact Statement Guidelines, Project-Specific Guidelines, and the Pre-Hearing Conference decision which typically also includes a list of commitments provided by the Proponent. The commitments list is assembled through the Technical Meeting and may be accepted by the Board as a means of the Proponent addressing the outstanding concerns identified by participants in the review process. Updating of a *Draft* Impact Statement to serve as a Final Impact Statement may range from minor updates to substantive updates which necessitate significantly reformatted documentation. Following receipt of the Final Impact Statement submission, the NIRB conducts an internal check of the material to determine whether it complies with the Guidelines, the direction provided by the Board in its Pre-Hearing Conference decision, and is consistent with the list of commitments. A technical review of the Final Impact Statement is then conducted, with written feedback accepted through final written submissions as the Board schedules and holds a Final Hearing. Following the close of the Hearing record, the Board then issues a Final Report and recommendations to the Minister with a determination of whether the project should or should not be allowed to proceed to development.

Figure 1: Process for Submission of Impact Statement During Standard Review Process

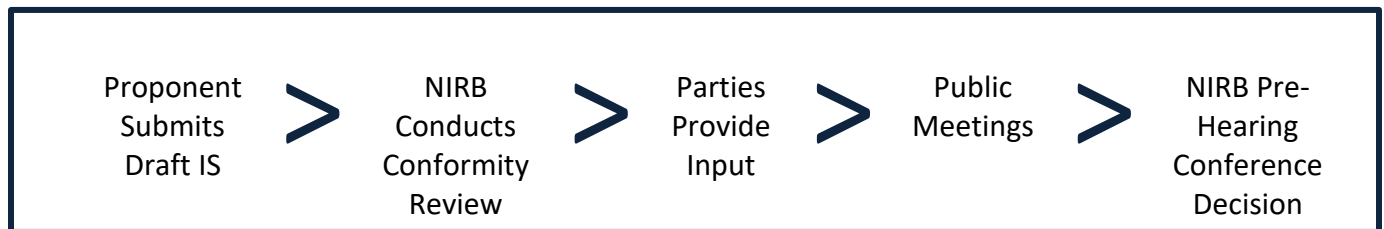
Three Phases of the Review

Minister Refers Proposal to Review

Phase 1: Scoping and Guidelines Creation (approximately 90 days*)



Phase 2: Draft Environmental Impact Statement (Draft EIS) (approximately 160 days*)



Phase 3: Final Environmental Impact Statement (FEIS) (approximately 125 days*)

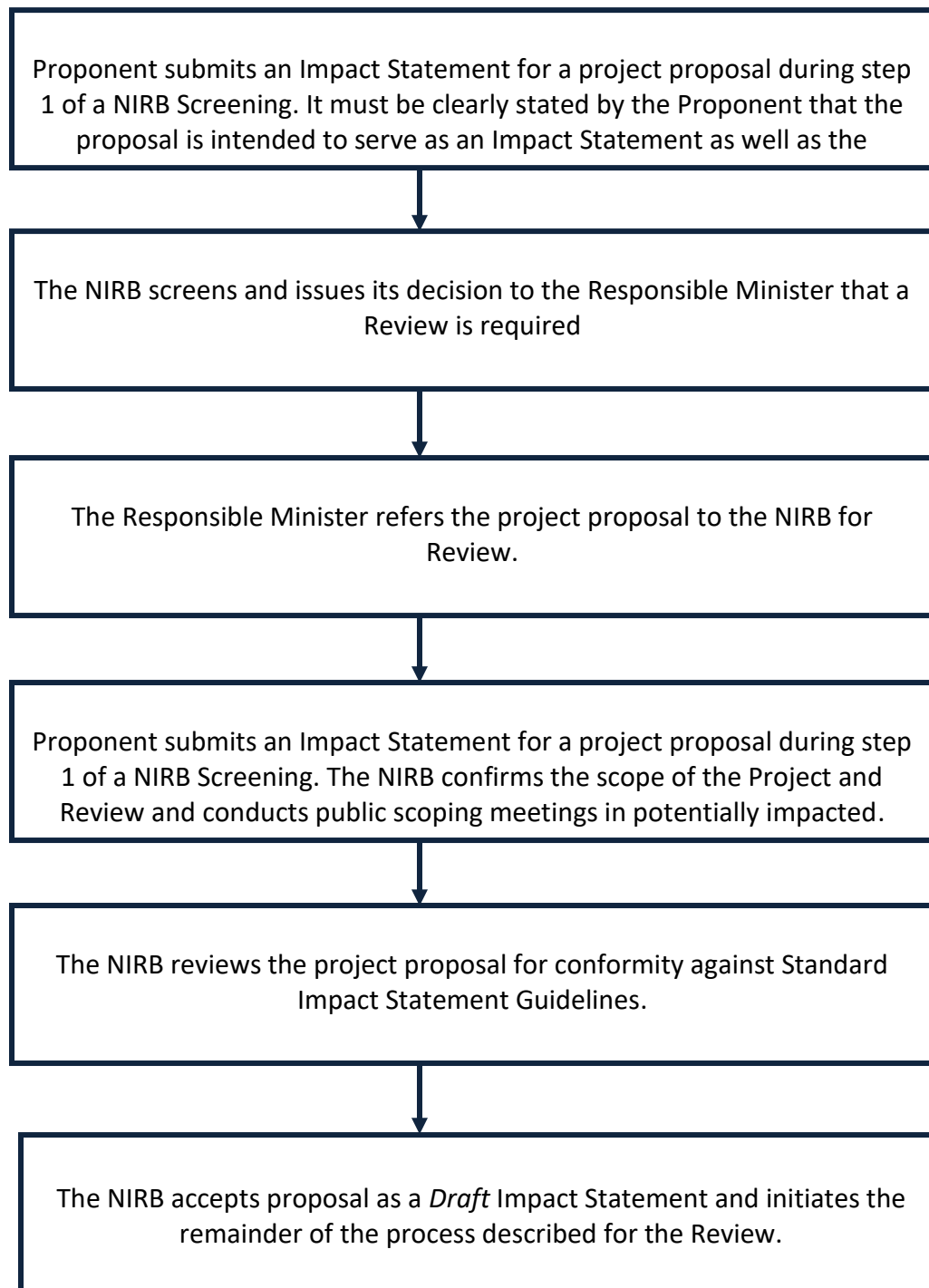


Proponents may choose to utilize the iterative Review process described above or alternatively provide a project proposal that is sufficiently detailed to contain the information required for an impact statement. In the latter circumstance, the Board may modify the process and timelines to conduct a review based on the Proponent's submission of the Final Impact Statement or may accept the original project proposal as a *Draft* Impact Statement.

1.4.2 Project Proposal Submitted During NIRB Screening

Proponents may choose to submit a project proposal during the Screening phase that meets the information requirements for a Final Impact Statement using the Standard Impact Statement Guidelines. It must be directly stated in the materials that the Proponent wishes the submission to function as both the application and the Impact Statement. Screening is the initial impact assessment of a proposed project. The main purpose of Screening is to determine if a more in-depth Review is needed to better understand the impacts of the proposed project. Proponents are required to submit a project proposal, as well as supplementary information as requested, during a Screening. If the Proponent wants project proposal to function as the Impact Statement and demonstrates that it meets the requirements of an Impact Statement, it can potentially eliminate the requirement of developing Project-Specific Guidelines and lead to fewer steps than during the Standard Review process described above. While the NIRB's screening decision process remains the same, parties can provide input during the Screening comment period to advise the Board on how the Review may be carried. [Figure 2](#) illustrates a potential process when a project proposal is submitted during the Screening phase and accepted as an Impact Statement.

Figure 2: Potential Process for Submission of Impact Statement During NIRB Screening



1.5 Amendments to Impact Statements for Previously Approved Major Projects

For additional guidance see the **Proponent Public Engagement Guidance Document**
<https://www.nirb.ca/content/guides>

The NIRB may reconsider the terms and conditions in a NIRB Project Certificate under Article 12, Section 12.8.2 of the *Nunavut Agreement* and s. 112 of the *NuPPAA*. The Reconsideration of a Project Certificate may be initiated independently by the Board on its own initiative, upon application by a Designated Inuit

Organization, the Proponent, other interested parties, or by the Minister under Article 12, Section 12.8.3 of the *Nunavut Agreement* and s. 112(2) of the *NuPPAA*. To proceed with a reconsideration of the Project Certificate it must be established that:

- a) The terms and conditions contained in the project certificate are **not achieving their purpose**;
- b) The circumstances relating to the project or impact of the terms and conditions are **significantly different** from those anticipated at the time the Project Certificate was issued; or
- c) There are technological developments or new information which provide a **more efficient method** of accomplishing the purpose of the terms and conditions.

Proposed modifications can be assessed as a separate Screening depending on the linkage to the previous project. If a proposal is related to an approved major project but could occur independently, a Screening may be sufficient to assess the impacts of the undertaking. However, if the new or adjusted activities require changes to the terms and conditions of a Project Certificate, the NIRB must advise the Minister and initiate an assessment. While modeled off a Review process, the NIRB has discretion as to the process for conducting a Reconsideration of Project Certificate terms and conditions. For example, a Reconsideration process could reflect one of the processes outlined in [Section 1.4](#) and may be assessed through a written process. The Board's Reconsideration **must include an assessment of the potential for the proposed modification to result in new, adjusted, or different impacts to the ecosystemic and socio-economic impacts** previously assessed for the project.

The NIRB may require that the Proponent prepare an addendum to an Impact Statement for significant modifications to a project during a Reconsideration, and will provide direction to the Proponent and parties when determining the assessment process. Proponents intending to submit a project proposal for a modification are advised to discuss potential processes with the NIRB. While not all sections may be applicable, the Standard Impact Statement Guidelines should be followed for Impact Statement addendums.

2.0 PART 2 – GUIDING PRINCIPLES

Inuit Qaujimajatuqangit, Public Engagement, the Precautionary Principle, and Sustainable Development are principles, or values, that guide the NIRB's impact assessment processes. The

related sections below clarify the expectations for Proponents when developing an Impact Statement.

2.1 Inuit Qaujimajatuqangit

The Board is committed to the application of Inuit Qaujimajatuqangit throughout the Board's Proceedings and expects that Inuit Qaujimajatuqangit extensively and respectfully informs project development as well as the Impact Statement. This section outlines how the NIRB describes and views Inuit Qaujimajatuqangit as well as Indigenous Knowledge and Community Knowledge. The NIRB's requirements and expectations regarding Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge in the development of the Impact Statement is expanded on in [Section 4.4.2](#).

For additional guidance see the
**Proponent Inuit
Qaujimajatuqangit
Document** **Guidance**
<https://www.nirb.ca/content/guides>

Inuit Qaujimajatuqangit is central to the lives of Inuit across the Nunangat, including in Nunavut. More than solely knowledge, it refers to aspects of Inuit culture, values, and worldview, and as such plays a central role in the life of Nunavut far beyond the world of impact assessment. Given this central role, the incorporation of Inuit Qaujimajatuqangit in NIRB processes and decisions – and in the applications the NIRB reviews from Proponents – is essential to the development of a defensible, rigorous, and accurate impact assessment regime which respects the rights of Inuit. Inuit Qaujimajatuqangit represents a unique resource for impact assessment in Nunavut due to the nature of the knowledge and values which it represents and includes.

With its emphasis on personal observation, collective experience, and oral transmission over many generations, Inuit Qaujimajatuqangit provides information on the environment and the relationship between Inuit and the environment. This includes matters such as ecosystem function, social and economic well-being, land use, and explanations of these facts and causal relations among them. Inuit Qaujimajatuqangit is a holistic view that does not categorize the environment into separate components, and rather views the environment as many interconnected parts. It is more than just the information produced and encompasses all aspects of way of life.

Inuit Qaujimajatuqangit is a relational form of values and knowledge. It has been learned and developed from lifetimes of Inuit-to-Inuit and Inuit-natural world relationships and interactions. It continues to shape and guide those relationships and interactions today. Inuit Qaujimajatuqangit encompasses how people interact with one another and the environment and how knowledge is produced and shared. Inuit need to be involved throughout the project development and assessment process, from design to assessment of significance and monitoring and follow up.

The Board has adopted the following description of Inuit Qaujimajatuqangit: “what Inuit have always known to be true” (see Karetak, J., Tester, F., & Tagalik, S. (Eds.). (2017). *Inuit Qaujimajatuqangit: What Inuit Have Always Known To Be True*). Further, the Board notes that

Inuit Qaujimajatuqangit is not a static concept and there are several central notions fundamental to the understanding of Inuit Qaujimajatuqangit. For example, key aspects of Inuit Qaujimajatuqangit as explained by R. Paton on behalf of the Qikiqtani Inuit Association, were cited with approval in the NIRB's *Reconsideration Report and Recommendations for Baffinland's Phase 2 Development Proposal*, Baffinland Iron Mines Corporation Project Certificate No. 005, NIRB File No. 08MN053, May 13, 2022, at p. 35, footnote 35:

Inuit Qaujimajatuqangit contains Inuit oral history, what has been passed down verbally over centuries of Inuit Knowledge. Inuit Qaujimajatuqangit encompasses both the past and the present. It cannot be separated from within Inuit society. It is part of our Inuit identity. Inuit Qaujimajatuqangit is Inuit knowledge that is both living and adapting and very much part of our present day and present-day life. It is how Inuit live and see the world. It is distinct and specific to the Arctic environment. It cannot be duplicated anywhere else, nor can it be interpreted or represented by non-Inuit without consent from those Inuit to whom that knowledge is gained. Inuit Qaujimajatuqangit is verified by Inuit for Inuit.

The Board also considers knowledge provided by various knowledge-holders and Indigenous groups asserting s. 35 rights in the Nunavut Settlement Area. This information is described as:

- **Indigenous Knowledge** is the accumulated body of knowledge, observations, and understandings about the environment and the relationship of living beings with one another and with the environment, that is rooted in the way of life of Indigenous peoples.
- **Community Knowledge** reflects the wisdom and experience of community members, including observations and understandings about the environment and how knowledge is generated, stored, applied, and shared with others.

Multiple core principles apply to the gathering of Inuit Qaujimajatuqangit, including:

- **Inuit Qaujimajatuqangit is different from Western knowledge.** Proponents must recognize how it is different and respect these differences throughout the engagement process, from collection to reporting.
- **Only Inuit can hold or generate Inuit Qaujimajatuqangit.** Inuit must be involved in every stage of Inuit Qaujimajatuqangit use, including analysis, validation, and reporting. Inuit Qaujimajatuqangit is not something that can be extracted and used as seen fit by outsiders.
- **Inuit Qaujimajatuqangit belongs to Inuit.** Proponents will be expected to adhere to Inuit protocols for the patriation/repatriation of Inuit Qaujimajatuqangit to the appropriate Inuit institution. Where a community or organization does not have their own Inuit

Qaujimajatuqangit policy, principles of Ownership, Control, Access, and Possession⁵ will be demonstrably adhered to by the Proponent.

- **Inuit Qaujimajatuqangit is maintained through oral tradition and is best understood in oral contexts.** Knowledge is generated through discussion and consensus-building. When removed from the oral context, Inuit Qaujimajatuqangit is compromised. Care should be taken to understand this context.
- **Inuit Qaujimajatuqangit is highly contextual and practically applied knowledge.** As outlined above, Inuit Qaujimajatuqangit provides community members the knowledge to maintain their culture and harvesting practices and is highly dependent on the specific conditions related to these practices and environments. Knowledge removed from the specific context and community to which it belongs ceases to be Inuit Qaujimajatuqangit.
- **Inuit Qaujimajatuqangit evolves as the context and reality change.** Therefore, Inuit knowledge should be consulted anew each time a new project or major project change is considered. Reliance on existing “published” Inuit Qaujimajatuqangit should be avoided. This is especially true given the rapidly shifting environmental conditions in Nunavut. Where the context changes, so does Inuit Qaujimajatuqangit. If previously shared Inuit Qaujimajatuqangit is being used, Inuit need to validate its applicability.
- **Inuit Qaujimajatuqangit is holistic.** Rather than separating elements of Inuit culture or the natural world into separate pieces for analysis, Inuit Qaujimajatuqangit considers how each part relates to the whole. Knowledge is generated in consideration of the entire context in question.
- **Inuit Qaujimajatuqangit goes beyond the physical world, including aspects of identity, culture and spiritual belief that are central to Inuit worldview.** These must be included alongside observations about the physical world to fully grasp Inuit understandings.

2.2 Public Engagement

Proponents are required to plan for and provide meaningful public engagement opportunities throughout all stages of a project, including project development, as well as throughout the NIRB’s assessment of a proposed project.

For additional guidance see the **Proponent Public Engagement Guidance Document**
<https://www.nirb.ca/content/guides>

⁵ As per the Inuit Tapiriit Kanatami (2018) National Inuit Research Strategy (Priority Area 4) and the First Nations Information Governance Centre’s OCAP Principles (<https://fnigc.ca/what-we-do/ocap-and-information-governance/>).

Proponent engagement with potentially impacted communities starts **before** a project proposal enters the NIRB process (e.g. during exploration) and involves developing long-term and ever-evolving relationships.

Public engagement is an integral component of the NIRB's impact assessment process. Proponents are required to engage potentially impacted communities, the public, and interested parties about proposed projects and activities in a way that informs, consults, and enables them to participate in the development of the project, impact assessment, and mitigation and monitoring measures. Proponent requirements for public

engagement when developing the Impact Statement are detailed in [Section 4.4.1](#).

The NIRB uses the term 'public engagement' as an encompassing term that describes varying levels of information exchange and involvement between the public, the Proponent, other participants, and the NIRB during the NIRB's impact assessment processes and proceedings. Public engagement, and particularly consultation, is intended to create an open, honest, and transparent process including the public in decisions about project activities whether proposed or included within a project certificate. The focus of public engagement is to create opportunities to exchange and clarify information, gather input, and promote collaboration and understanding amongst the public to inform the project design, as well as the NIRB's Impact Assessment processes, proceedings, and decision-making. Public engagement and gathering of Inuit Qaujimajatuqangit are different exercises (see [Section 4.4.2](#) for requirements related to Inuit Qaujimajatuqangit).

The NIRB views public communication and public consultation as the two primary mechanisms of public engagement. These differ according to the direction and flow of information and extent of the participants in a process.

Meaningful public engagement should aim to **inform, consult, involve, and collaborate**, with the objective of

- **informing** the public. This involves providing balanced, objective, and understandable information that facilitates an understanding of the Project and the Proponent's impact assessment analysis and conclusions. This should address how public input is to be considered and incorporated into all stages of project development and the impact assessment.
- **consulting** the public and providing opportunities to receive feedback on the Project design and assessment, including scope of the assessment, alternatives, issues of concern, and potential mitigation measures. This includes reporting back to the public on issues brought up in previous meetings and how they were addressed or not addressed. This allows the public to understand how their feedback is being used and/or provide clarity regarding any issues that were discussed.



Meaningful public engagement is transparent, inclusive, respectful, and includes:

- Building relationships that start early in project development and prior to the NIRB's impact assessment processes.
- Consistent and ongoing engagement with multiple demographic groups/organizations/individuals.
- Providing early notification of engagement opportunities.
- Requesting feedback from the public on how they want to be engaged.
- Clearly communicating the objectives and processes for public engagement.
- Ensuring participants have access to appropriate, relevant, and accessible information in a timely manner.
- Demonstrating respect and understanding of the Knowledge shared by the public and ensuring it is captured appropriately.
- Providing reasonable timelines and recognizing seasonal or other constraints to engagement.

- **involving** the public, including activities that allow for public input to be included and reflected in all stages of project development and impact assessment. This includes identifying issues of public concern, responses to information provided, and addresses how public input provided and knowledge shared will be recorded and communicated back to the public.

- **collaborating** with the public at all stages of project development and impact assessment should be interactive and allow for active participation of the public through many platforms, including in-person, virtual, and written.

Public engagement is required, at a minimum, to:

- Build respectful relationships between parties.
- Contribute to the development of the scope, design, alternatives, and plans for site preparation, construction, operation (including reduced operation), maintenance, any potential modifications, temporary closure (care and maintenance), final closure (decommission and reclamation) and post-closure of the proposed project.
- Identify current and historical patterns of land, marine, and resource use.
- Collection, protection, and use of shared Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge.
- Establish ecosystemic, socio-economic, wellness and health baseline conditions including trends and socio-ecological systems (and how they are interrelated) over time for a set of conditions.
- Identify valued ecosystemic and socio-economic components (collectively referred to as valued components) and related indicators, criteria, and parameters for the project impact, cumulative, and transboundary impact assessments.
- Inform and evaluate the impacts assessment (i.e. significance of potential impacts).
- Identify potential cumulative impacts (including significance of potential cumulative impacts).
- Inform and develop monitoring and mitigating measures including thresholds.

While many authorizing agencies and organizations may have public engagement requirements and obligations for their respective processes, the Standard Impact Statement Guidelines and other NIRB documents only outline the NIRB's expectations and requirements. It is important that Proponents define expectations with potentially impacted communities. Proponents are encouraged to reach out to respective Authorizing Agencies as well as the appropriate Designated Inuit Organizations and other organizations. Additional guidance is available in the Proponent's Public Engagement Guidance Document.

2.3 Precautionary Principle

The Proponent is expected to incorporate the precautionary principle throughout its Impact Statement, including project design ([Section 4.3.1](#)), assessment of project alternatives and identifying preferred means of carrying out the project ([Section 4.3.2.1](#)), and impact prediction

and significance determination ([Section 4.4.5](#)), as well as identification of mitigation measures and monitoring methods ([Section 4.6](#)). The NIRB's Review process is designed to assess proposed projects in a careful and precautionary manner and to ensure that where there is a potential for harm to the environment, actions will be taken to prevent or reduce the negative impacts, even if there is a lack of information and certainty about the cause and extent of the impact itself.

When conducting a project-specific impact assessment, the Board has adopted the description of the precautionary principle as found in Principle 15 of the Rio Declaration on Environment and Development (1992): "Where there are threats of serious or irreversible damage, lack of full scientific certainty *shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation*" [emphasis added].⁶ The Board has relied on this notion of the precautionary principle to engage in environmental decision-making that 'errs on the side of caution' and reflects the potential for adverse environmental impacts, even when the risk of such impacts cannot be definitively proven. The Board's considerations will include the following factors, at a minimum:

- the seriousness or reversibility of potential adverse impacts;
- the likelihood that should the impacts occur they could be mitigated or reversed;
- the jurisdictional authority of the NIRB; and
- public concern.⁷

The reliance on the precautionary principle and associated adaptive management to address uncertainty with respect to the potential for environmental harm is becoming well-accepted practice within Canada and has been characterized as an emerging international norm in impact assessment and environmental regulatory decision-making.⁸

The Board expects the Proponent to use adaptive management to integrate impact predictions with monitoring, mitigation, and management functions. Under this adaptive management approach, the Board expects the Proponent to use monitoring data to evaluate, on an ongoing basis, the predicted impacts and the efficacy of mitigation and management developed and implemented to address all impacts. The higher the risk of significant adverse impacts the more extensive the required monitoring and mitigation measures.

⁶UN (United Nations). 1972. *Rio declaration on environment and development*. In: Report of the United Nations Conference on the Human Environment, Stockholm, pp. 5-16.

⁷(Doc ID No. 286425). NIRB File No.: OOMN053, Final Hearing Report for the Mary River Project, Baffinland Iron Mines Corporation, September 14, 2012, at p. 13.

⁸114957 *Canada Ltée (Spraytech, Société d'arrosage) v. Hudson (Town)*, [2001] 2 SCR 241, 2001 SCC 40 (CanLII), <http://canlii.ca/t/51zx> at para. 31; and *Morton v. Canada (Fisheries and Oceans)*, 2015 FC 575 (CanLII), <http://canlii.ca/t/ghjfq> at paras 41-43.

The Proponent bears the burden of proof to show that despite uncertainty, the potential for adverse impacts can be mitigated or reversed. This includes providing information or evidence to support their decisions throughout the Impact Assessment.

To demonstrate the application of the precautionary principle, the Proponent must include information to:

- demonstrate that the proposed project is examined consistent with the precautionary principle to ensure that it does not cause serious or irreversible damage to humans or the environment;
- outline the assumptions about the impacts of the proposed project and the approaches to minimize these impacts, including assumptions that are developed where uncertainty exists;
- identify any information or technical gaps and plans to understand and/or mitigate these gaps based on the current state of technical knowledge and Inuit Qaujimajatuqangit for the Project area;
- identify any follow-up and monitoring activities planned, particularly in areas where uncertainty exists in the prediction of impacts;
- present public views on the acceptability of these impacts; and
- demonstrate that Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge is considered in a fulsome way that is consistent with the precautionary principle of not requiring “certainty” to establish the potential for harm to ecosystemic components such as the:
 - marine environment;
 - socio-economic components such as culture, food security, land use;
 - Inuit rights such as harvesting and self-determination; and
 - inter-related socio-ecological systems.

The International Union for Conservation of Nature’s ([IUCN, 2007](#)) sets out guidelines in the application of the precautionary principle to the conservation of biodiversity and natural resource management that should be considered by the Proponent in the development of the Impact Statement and the proposed project.

2.4 Sustainability and Sustainable Development

The Proponent’s Impact Statement shall clearly demonstrate how the proposed project meets the goals for sustainability as identified below. The Impact Statement must further characterize the proposed project’s contribution to sustainability, including that as defined by potentially impacted communities, the public, and interested parties and must describe how sustainability

principles have been applied to the potential impacts of the proposed project. Proponent requirements for considering sustainability and sustainable development when developing the Impact Statement are detailed in [Sections 4.1.3](#) and [4.3](#).

Sustainable development is defined as development that “*meets the needs of the present without compromising the ability of future generations to meet their own needs*” ([UN, 1987](#)). It is about balancing economic, ecosystemic, social, cultural, and health needs and well-being, while allowing for the protection of the environment and availability of benefits for present and future generations. This means that the impacts of decisions made today on future generations must be considered. Sustainability is fundamental to the NIRB’s primary objectives laid out in Section 12.2.5 of the *Nunavut Agreement* and s. 23 of the *NuPPAA*. The Board must consider whether, and to what extent, the project would **protect and enhance** the existing and future well-being of the residents and communities of the Nunavut Settlement Area, considering the interests of other Canadians. The Board must further consider whether the project reflects the priorities and values of the residents of the designated area (*NuPPAA* s. 103(b)(c)).

The Standard Impact Statement Guidelines are based upon the following factors that the NIRB considers directly associated with sustainability by considering ecosystemic, economic, social, cultural, and health and well-being aspects:

- 1) The environment is comprised of interconnected and interdependent ecosystemic, socio-economic components, including culture, health, and well-being, and systems;
- 2) The extent to which the physical environment, biological and ecological diversity, and socio-economic environment, including health, social, economic, and cultural components as well as well-being would be impacted by the proposed project;
- 3) Measures taken to enhance overall positive impacts and reduce adverse impacts;
- 4) The extent the proposed project would protect and enhance the existing and future well-being of present and future generations of Nunavummiut, taking into account the interest and well-being of other Canadians;
- 5) The capacity of renewable and non-renewable resources that are likely to be significantly impacted by the proposed project;
- 6) The extent the proposed project reflects the priorities and values of the residents of the designated area; and
- 7) The application of the precautionary principle (as outlined above) and consideration of uncertainty and risk for irreversible harm.

The NIRB interprets progress towards sustainability as meeting the following goals where possible:

- 1) Preservation of ecosystem integrity, including the capability of natural systems (local and regional) to maintain their structure and functions and to support biological and ecological diversity;

- 2) Recognition and preservation for local hunting, harvesting, gathering, occupancy and other land and aquatic uses, such as for cultural practices, travel and camps, and cultural connection (past, present, and future);
- 3) Recognition and respect for intergenerational equity; that is, the right of future generations to economic development, health, and well-being as well as use and access of the environment and resources; and
- 4) The attainment of durable social and economic benefits, particularly in Nunavut.

3.0 PART 3 – PREPARATION OF THE IMPACT STATEMENT

3.1 Study Strategy and Methodology

This section outlines the overall expectations related to the Proponents' methods for undertaking its impact assessment and developing the Impact Statement, including data and information collection, analysis, and documentation. Detailed requirements and guidance on the impact assessment methodology specific to public engagement, Inuit Qaujimajatuqangit, scope, baseline and existing environment, and approach to the impact assessment are available in [Section 4.4](#). It is the sole responsibility of the Proponent to prepare an Impact Statement that includes sufficient information, analysis, and/or incorporation of all collected knowledge (e.g., scientific information, consideration of engineering information, Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge) for a complete assessment of the anticipated impacts of the proposed project and development of mitigation and monitoring measures.

The Proponent is required to engage with the NIRB, potentially impacted communities, the public, and interested parties during the planning and development of the Impact Statement and supporting documents. The Proponent shall engage potentially impacted communities, the public, and interested parties in the development of the Impact Statement, including but not limited to:

- Project design, including location of infrastructure and activities
- Identification of valued components
- Identification of systems
- Baseline information
- Land use
- Impact assessment (including significance determination and cumulative impacts)
- Mitigation and monitoring
- Development of plans

The Proponent shall consider the life of the project in its development of the Impact Statement, including:

- Site preparation
- Construction
- Operation (including reduced operation)
- Maintenance
- Potential modifications
- Temporary closure (care and maintenance)
- Final closure (decommissioning and reclamation)
- Post-closure

The Proponent shall:

- Identify all significant gaps in knowledge and information and understanding and the steps to be taken to address these gaps;
- Contain a balanced presentation of knowledge and information available from different knowledge sources; and
- Contain conclusions and rational, as well as plans to address differences or concerns identified, where the conclusions drawn from scientific, engineering, and technical knowledge are inconsistent with the conclusions drawn from Inuit Qaujimajatuqangit, Indigenous Knowledge, or Community Knowledge.

While some sections of the Impact Statement will necessarily need to include technical and detailed information, Proponents are encouraged to use plain language as much as possible and to consider including plain language summaries for each chapter.

Omissions in the Standard Impact Statement Guidelines and any Project-Specific Guidelines issued by the NIRB cannot be used to justify any inadequacies in the Impact Statement. The Impact Statement must be a stand-alone document that allows the reader to understand the proposed project and its likelihood to cause ecosystemic or socio-economic impacts.

3.1.1 Acquisition Methodology and Data Analysis

Except where specified by the NIRB, the Proponent has the discretion to select the most appropriate methods to collect, compile, and present data, information, and analysis in the Impact Statement. Proponents are encouraged to engage with parties and specifically potentially impacted communities on what visuals and information would be most helpful. **The Impact Statement shall identify and document how scientific information, engineering information, Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge were used.** Methods for collecting and analyzing scientific information will necessarily differ from methods deemed acceptable to collect, analyze, and present Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge. These methods may further differ by region and

community. It is important that the Proponent document the methods used and are transparent in its approach.

The Proponent shall clarify any uncertainties in methods and conclusions (e.g., as relates to baseline, impact assessment, mitigation, etc.).

If the Proponent identifies that specific information would not be available for the initial Impact Statement submission, it shall include a scheduled timeline for when the required information would be available. If the initial submission is incomplete, the NIRB will consider the submission to be a *Draft* Impact Statement. The NIRB acknowledges that the level of information requested or available will evolve and develop as the Review progresses from the *Draft* to a Final submission.

3.1.1.1 Scientific and Engineering Information

Data collection, sampling process, and data analysis methods, as well as use of proper experimental and analytical controls, must be clearly identified and justified. The scope and reliability of the results, the reproducibility of the study design and statistical analysis, and quality control of laboratory analyses shall be analyzed and clearly detailed. All data that is based on sampling of valued components involves some variability, which must be determined to assess the probability of conclusions made based on analysis. **For all data obtained from Valued Component sampling the Proponent shall provide:**

- **dispersion or variability coefficient (variance, standard deviation, confidence interval, etc.);**
- **justification for sample size; and**
- **sensitivity and assumptions of experimental design and statistical methods and models used that affect conclusions.**

3.1.1.2 Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge

The Proponent is advised to engage with potentially impacted communities, the public, and interested parties when developing acceptable methods of analyzing and presenting shared information. **The Proponent shall show evidence that:**

- **appropriate protocols were followed for collection, protection and use of Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge;**
- **Knowledge holders were involved in both the collection and interpretation of Inuit Qaujimajatuqangit and other knowledge shared;**
- **Knowledge holders verified how knowledge shared is presented and has been applied to the impact assessment; and**

- **the permission of the knowledge holders to use this knowledge as presented in the Impact Statement.**

When designing data collection, it is recommended that the Proponent coordinate with ongoing programs with relevant developments, government organizations, regional authorities, designated Inuit organization(s), Indigenous groups and organizations (e.g., local Hunters and Trappers Organizations), and researchers. This recommendation also applies to data collected for the Nunavut General Monitoring Program, as per Article 12 of the *Nunavut Agreement*, the Proponent's project-specific monitoring programs, as well as any regional monitoring initiatives in which the Proponent currently participates or plans to participate.

3.1.2 Documentation

It is the NIRB's expectation that the Proponent focuses its discussions on key components and issues and provides a level of detail appropriately weighted to the importance of the issue(s) being analyzed. While key components and issues will predominantly be identified during the scoping phase of a Review, the NIRB notes that key issues may arise throughout the assessment and expects the Proponent to respond. The Proponent shall indicate how it has incorporated public feedback in weighting the importance of this issues and provide a rational for conclusions it chooses not to adopt.

All data, models, and studies must be documented and discussed so that the analyses are transparent and justifiable. **The Impact Statement shall explain how the Proponent incorporated Inuit observations, which are often qualitative and culturally defined through the lens of Inuit Qaujimajatuqangit, into all phases of project development. The Impact Statement shall also explain and justify methods used to identify** mitigation measures, adaptive management strategies, and follow-up program elements.

Both quantitative and qualitative criteria should be used to describe the ecosystemic or socio-economic environments and interconnections, compare various design and development options, assess impacts, and develop mitigation and monitoring thresholds and/or requirements. Criteria must be defined, their relative importance stated, and the differences between the categories (e.g. desirable, acceptable, unacceptable) indicated and justified. **The Proponent shall corroborate all analyses, interpretations of results, and conclusions with a review of relevant literature (including scientific information and Inuit Qaujimajatuqangit, Indigenous Knowledge, or Community Knowledge). References must be provided as appropriate, and the Proponent must indicate the public availability of sources and shall identify or reference sources appropriately in cases where ownership or confidentiality concerns exist.**

3.1.3 Use of Existing Information

In preparing the Impact Statement, the NIRB expects the Proponent to utilize available and pertinent results of surveys and studies completed in the proposed project region or related to specific aspects of the Project by other developers, government agencies, organizations, institutions, regional authorities, and individual researchers. For example, the Proponent should

incorporate lessons learned from previous and/or currently active projects in similar environments. When using existing information to meet the requirements of various sections of the Standard Impact Statement Guidelines, the Proponent should include the information directly in the Impact Statement with clear reference indicating the source of information (i.e. document, section, and page numbers). Further, the Proponent shall ensure that Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge used from databases receives input from the applicable Regional Inuit Association(s) and/or Knowledge holders on applicability. **The NIRB further recommends that the Proponent consult with Knowledge holders on the applicability of using Inuit Qaujimajatuqangit, Indigenous Knowledge, or Community Knowledge previously shared and not specific to the proposed Project.**

4.0 PART 4 – THE IMPACT STATEMENT

Part 4 of this document provides specific direction and guidance for Proponents by outlining the NIRB’s expectations for an Impact Statement. In preparing the Impact Statement, Proponents must follow the Standard Impact Statement Guidelines – ensuring the requirements of the *Nunavut Agreement* and the *NuPPAA* are met – and any additional project specific guidance provided by the NIRB. Impact Assessment requirements will be provided at the beginning of each section in a green table. These same requirements are listed in the conformity table template in [Appendix A](#). Additional guidance on these requirements is provided in the content following the tables.

A Checklist of Submission Requirements is provided for the Proponent in [Appendix B](#).⁹

Additional guidance on information requirements for the Impact Statement may be included when project-specific Impact Statement Guidelines are developed and issued for a project under Review pursuant to Section 12.5.2 of the *Nunavut Agreement* and s. 101(1) of the *NuPPAA*.

4.1 Submission Requirements

Table 2: Submission Requirements

General
Documents provided in PDF, not password protected, in-text searching, able to copy text/images/information. Respects limited broadband in the north.
Hard copies of the Impact Statement provided as necessary.
Tables, figures, pictures, three-dimensional modeling, videos, etc. provided.
Maps presented in a consistent and clearly identified datum and with clearly identified scales to allow for comparison and overlay of mapped features.
Main Document
Stand-alone main document that includes sufficient details for the NIRB and parties to learn about and understand the proposed project, potential impacts, mitigation and monitoring measures, residual impacts, and the significance of those impacts, as well as the Project’s contribution to sustainability. The main document must be written in accessible language.

⁹ It is the Proponent’s responsibility to ensure it has submitted all information as required.

Conformity Table

A conformity table is provided that cross references the information presented in the Impact Statement with the information requirements identified in the Standard Impact Statement Guidelines and any applicable project specific guidance (including document, section, and page number).

Impact statement is presented in the same order as the Standard Impact Statement Guidelines. Deviations should be justified.

Summaries

Executive Summary available as a separate document that contains sufficient details for the reader to learn and understand the Project, potential ecosystemic and socio-economic impacts, mitigation measures, significance of residual impacts, and follow-up and monitoring programs (presented in English, French, Inuktitut¹⁰).

Non-technical, accessible, and plain language summary that contains sufficient details for the public to learn about and understand the Project, potential ecosystemic and socio-economic impacts, mitigation measures, significance of residual impacts, and follow-up and monitoring programs (presented in English, French, Inuktitut).

Submission requirements for the Impact Statement include:

- PDF copies of the Impact Statement and its summaries provided in an accessible format that respects the limited broadband in the north as the Impact Statement is placed on the NIRB's Public Registry for public access and review.¹¹
- All documents must be submitted in PDF format, not password protected, and which the reader can search for text within the document, can copy structured text, images, document information.
- Proponents shall contact the NIRB prior to submission to determine if hard copies of the Impact Statement and appendices are required.
- The Proponent is encouraged to use different types of media (e.g. tables, figures, pictures, three-dimensional modeling, videos, etc.) in addition to text materials to present project information to help a wider audience understand project information in different ways.

¹⁰ "Inuktitut" or "Inuktitut" means the forms of Inuit language in current usage in Nunavut, including Inuinnaqtun within the Kitikmeot Region of Nunavut

¹¹ As broadband capabilities are constantly changing, proponents should clarify with the NIRB the maximum size for each document prior to uploading.

The Proponent is encouraged to review the NIRB's *Technical Guide Series: Proponent's Guide* (NIRB, 2020)¹² and the [NIRB's Rules of Procedure](#) for further information on the submission requirements of the Impact Statement.

In the event of a submission of an Impact Statement Addendum, the Proponent shall avoid referring the reader to the original Impact Statement document for the relevant information and make efforts to include all project-specific information for the proposed amendment (including baseline data) available within the Impact Statement Addendum submission and/or associated attachments.

4.1.1 Translation

The Proponent must prepare the main document, the summary of each thematic volume of the impact statement, and the summaries in both of Canada's official languages (French and English) and in Inuktitut.¹³ Maps shall indicate common and accepted place-names usually referred to by the local communities in the study area in their own language, in addition to their official toponyms, especially where traditional Inuit place-names have been made official through the process outlined in Section 33.9 of the *Nunavut Agreement*. The Proponent is encouraged to translate any plain-language summaries prepared for individual chapters.

4.1.2 Content

At a minimum the Impact Statement shall contain the information as outlined in Article 12, Section 12.5.2 of the *Nunavut Agreement* and s. 101(3) of the *NuPPAA*.

4.1.3 Main Document

The Proponent shall prepare a main document is a stand-alone document that provides an overarching summary of the Project and assessment and is a standalone volume/document. The main document shall have sufficient details for the NIRB and parties (including intervenors, the public, and potentially impacted communities) to understand the proposed project, potential impacts, mitigation measures, residual impacts, and the significance of those impacts. The main document shall also include key maps illustrating the proposed project location and key project components. Detailed studies (including all relevant and supporting data and methodologies) shall be provided in separate appendices and will be referenced by appendix, section, and page in the text of the main document. The main document must be written in accessible language.

The main document, as well as the Impact Statement, shall be structured as follows:

1. Executive and Non-Technical Summaries (see [Section 4.1.6](#)) and a 1-page fact sheet of the Proposal.

¹² Guidance documents may be periodically updated, and it is the Proponents responsibility to ensure it has access to the most up to date guidance materials.

¹³ Additional language requirements and expectations would be provided in Project-specific Guidelines.

2. Project Overview: Introduction and impact assessment context (see [Section 4.2.2](#)).
3. Project Description: Project components and activities including the scope of project and assessment (see [Sections 4.2.3](#), [4.3](#), and [4.4.3](#)).
4. Project Purpose, Need, and Alternatives (see [Section 4.3.2](#)).
5. Summary of impact assessment for each valued component (see [Sections 4.4.4](#), [4.4.5](#) and [4.5](#)) and system identified, including:
 - description of the historical background and current baseline conditions;
 - predicted changes to the ecosystemic and socio-economic environments;
 - predicted impacts to the valued components and systems;
 - mitigation and enhancement measures;
 - residual impacts and the significance of those impacts;
 - cumulative impacts;
 - other impacts including:
 - accidents and malfunctions
 - impacts of the environment on the proposed project (e.g., climate change, meteorological, seismological).
6. Public engagement (see [Section 4.4.1](#)).
7. Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge (see [Section 4.4.2](#)).¹⁴
8. Project contribution to sustainability (see also [Section 4.3](#))
9. Follow-up and monitoring programs proposed (see [Section 4.6](#))
10. Appendices

4.1.4 Conformity Table

The Proponent shall provide a conformity table that is easy to follow, clearly demonstrates how all information requirements in the Guidelines have been met, and is specific on the location of information requirements within the Impact Statement. The Proponent must further indicate any gaps or missing information and the expected date for submitting that information. [Appendix A](#) provides a conformity table template for Proponents to fill out. The conformity table submitted by proponents must reflect the proposed project and any project-specific requirements.

¹⁴ Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge is expected to be included throughout the entire Impact Statement rather than separated from other information provided.

4.1.5 Presentation

The Impact Statement shall be written clearly and in plain and accessible language as much as possible, and include the following:

- The main document should be a stand-alone document;
- Separate appendices/volumes that provide detailed studies (including all relevant and supporting data and methodologies and management plans) should be cross-referenced to the main document;
- An index to the Impact Statement that references locations in the text by volume, section, sub-section and page of all key subjects;
- As appropriate, charts, diagrams, tables, maps, and photographs to clarify and/or support the text;
- Maps presented in a consistent and clearly identified datum and with clearly identified scales to allow for comparison and overlay of mapped features;
- A glossary of technical words, acronyms, and abbreviations in plain language;
- A list of all tables, figures, and photographs; and
- A complete list of supporting literature and references.

For clarity and ease of reference, the Impact Statement shall be presented in the same order as the Standard Impact Statement Guidelines unless otherwise noted by the NIRB within project-specific guidelines, or where current best-practices provide an alternative. Balanced cross-referencing of information within each section or volume of the Impact Statement document is preferred to avoid repetition. Readability and understanding of the proposed project and assessment should be a key consideration in the presentation of information. Mitigation and management plans should be developed as stand-alone documents.

4.1.6 Summaries

The Impact Statement shall include both an Executive Summary and Popular Summary as described below.

4.1.6.1 Executive Summary

The Executive Summary shall form part of the Impact Statement and be made available as a separate document. The summary shall have sufficient details for the reader to understand the proposed project, potential impacts, mitigation measures, residual impacts and significance of those impacts, cumulative impacts, follow-up program(s), and remediation. Maps indicating major project components including marine and ground transportation route(s), potentially impacted communities and key landmarks shall be included and presented in all languages as described in [Section 4.1.1](#). The Executive Summary shall include the following:

- Summary of all key components of the proposed project and related activities;
- An overview of expected positive and negative changes to the ecosystemic and socio-economic environments and well-being;
- Summary of the key negative and positive impacts of the proposed project, including cumulative impacts, on valued components and identified systems. Proposed mitigation measures shall be provided with particular reference to the overall conclusions of the assessment and a clear rationale relating those conclusions to the predicted impacts and the measures proposed to address them. This shall include potential impacts of most concern by potentially impacted communities;
- Summary of the engagement conducted with members of the public governments or organizations, and interested individuals, including where relevant, adjacent jurisdictions outside of the Nunavut Settlement Area;
- Summary of key issues, including those raised by members of the public and potentially impacted communities, and the strategies proposed to address them and the extent to which information from engagement activities was incorporated into the design of the proposed project; and
- The Proponent's conclusions on the residual impacts of the proposed project after taking mitigation measures into account and the significance of those impacts.

The Proponent is encouraged to include cross sections and aerial plans for key project components to support the reader's understanding of the proposed project. Other media sources such as video, digital three-dimensional modeling, infographics, etc. shall also be used to further supplement the Executive Summary and improve awareness of the proposed project.

4.1.6.2 Non-Technical Summary

The Non-Technical Summary shall:

- be included as part of the Impact Statement and as a stand-alone document;
- have the same general structure as the Executive Summary;
- provide an effective snapshot of the proposed project and highlight the predicted impacts, the mitigation measures, significance determinations, and follow-up and monitoring programs;
- be written in non-technical, accessible, and plain language to ensure the public is able to review the proposed project;
- include a glossary and additional explanatory text to assist non-specialists in understanding the content of the Impact Statement as a whole;
- include maps and/or figures that effectively illustrate all activities and associated components that are included in the proposed project, as well as the local and regional context of the proposed project; and

- and shall be presented in all languages as described in [Section 4.1.1](#).

The Proponent is encouraged to use plain language editors to develop the Non-Technical Summary and reduce the use of acronyms. Maps should be at appropriate scales to illustrate project features including recognizable objects and landmarks in relation to the proposed project area. The Proponent is further encouraged to include other media sources (e.g. pictures, three-dimensional modeling, videos, etc.) to improve public awareness of the proposed project. The Proponent is encouraged to consult with the public on such visuals.

4.2 Introductory Sections

Table 3: Requirements for Introductory Sections

Proponent Information
Interests, management structures, operational experience, record of compliance, corporate policies, etc. and the posting of performance bonds provided.
Interests in land and waters that the Proponent has acquired or seeks to acquire.
Project Overview
The capacity of renewable resources that are likely to be significantly impacted by the proposed project to meet the existing and future needs of the residents of the designated area.
Project Scope
Project scope, including proposed project components and activities, scheduling details, project phases and timing, key features, location, and geographical setting.
Regulatory Regime
Identification of requirements of all relevant ecosystemic and socio-economic standards, laws, regulations, policies, guidelines, resource management plans, land use plans, any relevant regional studies or strategic assessments relating to project approval, and all phases of the proposed project.

4.2.1 Proponent Information

The Proponent shall provide information about its interests, management structures, operational experience, record of compliance, corporate policies, etc. and the posting of performance bonds. The Proponent shall identify itself and explain current and proposed ownership of rights and interests in the proposed project, as well as operational arrangements and corporate and management structures. The Impact Statement shall specify the Proponent's policies related to the ecosystemic and socio-economic environment, including health and wellbeing. The Impact Statement shall further specify whether and how these policies apply to all businesses for which

the Proponent has an operating responsibility, including to employees, contractors, subcontractors, and suppliers. These policies shall also describe the Proponent's reporting systems in place to ensure that lessons learned are incorporated into the business plan and operations on a regular basis. Furthermore, the Proponent shall provide complete contact information such as telephone and fax numbers, postal and email addresses, and where necessary, separate addresses for corporate and operations (or other relevant) offices.

If the Proponent does not have prior operational experience in Nunavut or Northern Canada, it shall discuss experience obtained in developing projects in similar environments as well as the safeguards that it intends to put in place to compensate for the lack of prior experience.

The Proponent shall describe its past and present operational experience in the activities being proposed for the Project, and with transportation networks involving air, marine, or ground transportation (winter and all-weather road components). The Proponent shall reference its:

- record of compliance with governmental policies and regulations pertaining to ecosystemic and socio-economic issues in past operations;
- record of safety, major accidents, spills and emergencies, and corresponding responses;
- record of any corporate policies, codes of practice, programs, or plans concerning the environment and sustainability. Information shall be provided on how its plans, policies, and programs align with and recognize the importance of Inuit laws, norms, and societal values;
- record in honouring commitments on ecosystemic and socio-economic matters, including well-being, in the event of planned or premature project closure, whether temporary or permanent, or due to change of ownership;
- record of undertaking adaptive management;
- relations with Indigenous peoples, including prior experience with any Impact and Benefits Agreements if appropriate;
- record of any training and/or support provided to Indigenous peoples to advance within the company;
- history of operational experiences in Arctic and Sub-arctic regions, including successfully carrying out mitigation measures;
- record in incorporating ecosystemic, socio-economic, health, well-being, and cultural considerations into all project phases;
- corrective actions undertaken in the past, distinguishing between those taken voluntarily and those taken at the insistence of a third party; and
- obligations or requirements that must be met to post a bond or other forms of financial security to ensure payment of compensation in the event of accidents that directly or indirectly result in major damage by the proposed project to either the ecosystemic or socio-economic environment. This must include considerations for the cost of planned or

premature closure, whether temporary, reduced, or permanent. The Proponent shall provide information on the current status of project financing and financial preparedness to meet the requirements for reclamation and security, should the proposed project proceed.

4.2.2 Project Overview

The Impact Statement shall include an overview that provides general project information to ensure the NIRB and all parties involved have a clear understanding of the proposed project and its potential impacts. The overview shall describe key project components and associated activities, scheduling details, the timing of each phase of the proposed project and other key features. The overview shall further describe the capacity of renewable resources that are likely to be significantly impacted by the proposed project to meet the existing and future needs of the residents of the designated area. For example, the capacity of the non-renewable resources being exploited (e.g. iron in the local mountain) and the sources of energy for the project, as well as the renewable resources that could be impacted (e.g. local water sources).

Additional details to the information required is provided in [Section 4.2](#).

4.2.3 Project Scope

As set out in s. 99(1)(a)(b) of the *NuPPAA*, the scope of the Project must include any work or activity identified in the project proposal received by the NIRB, as well as any other work or activity that the Board considers sufficiently related to the proposed project. The NIRB may exclude any work or activity from the scope that it considers insufficiently related to the proposed project.

The Proponent shall consider all phases, components, activities, and works identified in the scope of the proposed project as part of the impacts assessment.

4.2.3.1 Project Description

The Proponent shall provide a description of project components and all activities associated with each project component through the life of the proposed project (requirements for detailed Project Description are available in [Section 4.3](#)). It should assist in the understanding of the potential ecosystemic, socio-economic, and well-being impacts. The project description should present project components and all activities associated with each in a systematic way. The description shall provide an overview of:

- the proposed project as a whole, including all phases of development,
- the activities that will have the greatest potential to have ecosystemic, socio-economic (including health and cultural), and well-being impacts;

- the location of each activity, and the activities' duration, magnitude, and scale in sufficient detail to allow the Proponent to predict potential impacts, any interaction between those impacts, and to address any public concerns about the proposed project;
- a schedule, including time of year, frequency, and duration of all proposed activities and highlight activities that involve periods of increased disturbance to the ecosystemic, socio-economic, and well-being conditions;
- any alternative means of the project the Proponent wishes to include in the NIRB's Review; and
- changes that would occur in the local or regional study areas because of the proposed project and/or the alternative means to undertake the project.

Where specific codes of practice, guidelines, and policies apply, thresholds and quantitative limits shall be applied. These documents must be cited and may be included as appendices to the Impact Statement where required.

4.2.3.2 Project Development Phases

The Proponent is required to present a description of each project development phase [site preparation, construction, operation (including reduced operation), maintenance, any potential modifications, temporary closure (care and maintenance), final closure (decommission and reclamation) and post-closure], relevant timeframes, works and undertakings associated with each of these phases. This must include consideration for reduced function, temporary closure, or care and maintenance recognizing that operations may come to an unforeseen pause. The Proponent must also identify all associated mitigation and monitoring plans (ecosystemic and socio-economic) to be implemented in each of the identified phases to eliminate or minimize adverse impacts that might occur at various project stages for each project element.

4.2.4 Regulatory Regime

The Proponent shall present its understanding of the regulatory regime in which it would be operating by identifying the legislation and other regulatory approvals applicable to the proposed project as required by all relevant federal, territorial, regional, municipal, or Inuit owned lands. This would include laws, standards, Inuit societal laws, regulations, policies, guidelines resource management plans, land use plans, any relevant regional studies or strategic assessments relating to all project phases from project approval to post-closure activities. This section shall explain how the requirements would be met, including identifying potential future changes, and what specific governmental permits and approvals would be required. A list of currently held and required permits and licences, including dates of issue and expiry (as applicable) shall be appended. Requirements imposed by Article 12 of the *Nunavut Agreement* may be excluded from this discussion.

The Proponent shall also include a discussion of any steps it proposes to take to ensure it meets its project related tax obligations (including fuel and payroll taxes) with the Government of Nunavut, as well as meeting their regional programs for resource development.

4.2.5 Regional Context

The Proponent shall describe in general terms the regional ecosystemic and socio-economic (including health, social, economic, and cultural) environments as well as well-being of the region and Nunavut as a whole. This includes, but is not limited to: ecological land classifications, ecological processes and relationships, the location of other base and precious metal finds, and other existing and potential developments. This discussion should include a description of applicable land use plans and regional / strategic environmental assessments that identify existing ecosystemic and social conditions, and any key thresholds and related legal or policy requirements. This discussion should also include regional current and future land and/or aquatic use activities, including hunting, harvesting, gathering, occupancy, and land uses such as for cultural practices, travel and camps, and cultural connection (past, present, and future) in proposed project impacted area.

4.2.6 Project Location

The Impact Statement shall contain a concise description of the geographical setting and the socio-ecological context in which the proposed project would take place. This description shall focus on those aspects of the proposed project and its setting that are important to understand the potential ecosystemic and socio-economic impacts of the proposed project as well as impacts from the ecosystemic environment on the project. The description shall address the natural and human elements of the environment as well as explain the interrelationships between the ecosystemic environment and residents of the designated area, and particularly the most potentially impacted communities. The following information shall be included:

- The Geographic coordinates (longitude/latitude (degrees, minutes, seconds) and the Universal Transverse Mercator (UTM) coordinates of the main project site;
- Current land and/or aquatic uses (refers to both freshwater and marine water uses) in the area and the relationship of the proposed project facilities and components with any Crown land, Inuit Owned Land, and Commissioner's land;
- All waterbodies and navigable waterways;
- The ecosystemic, socio-economic, cultural significance, and value of the historical and archaeological sites, and/or culturally significant areas, in the Local and Regional Study Areas identified by potentially impacted communities, residents of the designated area, Inuit knowledge holders and/or Indigenous groups;
- Environmentally sensitive areas, such as national and territorial parks, ecological reserves, marine protected areas, United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Sites, ecologically and biologically sensitive areas, wetlands,

estuaries, and habitats of federally listed species at risk (Schedule 1 of *Species at Risk Act*) and other sensitive areas;

- Culturally important features on the landscape, culturally significant areas, and traditional harvesting regions;
- Local communities; and
- Land Tenure (see [Section 4.2.6.1](#)).

The Impact Statement shall also provide maps of the proposed project location. The location map shall include the boundaries of the proposed site with:

- geographic coordinates
- the key project components
- the major infrastructure
- adjacent properties or leased lands
- adjacent land and/or aquatic uses, and
- any important environmental features listed above.

In addition, site plans/sketches and photographs showing project location, site features, and the intended location of project components shall be included. Location maps shall be labelled with common and accepted place-names usually referred to by the local communities in their own language/dialects, in addition to their official toponyms, especially where traditional Inuit place-names have been made official through the process outlined in Section 33.9 of the *Nunavut Agreement*. The Proponent is encouraged to identify dialectal differences among potentially impacted communities, as necessary.

Maps of the proposed project's location shall be provided as an electronic geospatial data file(s) at a common scale and datum to accompany the text to allow for comparison and overlay with other maps. The Proponent should include a common reference point for potentially impacted communities to identify the scale of proposed works.

4.2.6.1 Land Tenure

The Proponent shall delineate on a map of suitable scale the legal boundaries of any areas to which it will acquire rights through lease or other tenure arrangements, including Crown land, Inuit Owned Land, and Commissioner's land. It shall further describe those areas by providing such information as, but not limited to: site coordinates, land size, file numbers, start and end dates, fees, name of right holder, and any post-authorization amendments and/or renewals.

The Proponent shall also provide information on existing tenures, licences, permits, or other authorizations that would be potentially impacted by the proposed project and provide a record on consultations with holders of such tenures, permits, or authorizations.

4.3 Detailed Project Description

Table 4: Requirements for Project Description

The purpose and need for the project.
How the proposed project design has been influenced by the ecosystemic environment, climate change, current and future land use, potential impacts to humans and communities, potential impacts to wildlife, socio-economic conditions, archaeological resources, public engagement, etc., and show how the proposed project has been designed to contribute to ecosystemic integrity and sustainability.
The options for carrying out the project were selected through consideration of potential impacts, technical feasibility, and economic viability, best available technology, and application of the precautionary principle.
Conceptual design of foreseeable development to ensure no "project splitting".
Proposed project development and closure costs, employment opportunities, contracting, employment benefits and programs, communities of hire, and commuting arrangements.

The Impact Statement must include a detailed project description. The following sections contain explicit requirements regarding project components and all activities associated with each project component through the life of the proposed project. It should assist in the understanding of the potential ecosystemic, socio-economic, and well-being impacts.

4.3.1 Project Design

General project design information discussed in the Impact Statement shall include a discussion and overview of:

- how the ecosystemic and socio-economic environment and well-being have influenced the design of the proposed project. This should include consideration of relevant geographical, geological, meteorological, hydrological, and oceanographic conditions. This discussion should also include current and future land and/or aquatic use activities, including hunting, harvesting, gathering, occupancy, and land uses such as for cultural practices, travel and camps, and cultural connection (past, present, and future) to the proposed project impacted area;
- how the potential for vulnerability to climate change impacts on the proposed project has influenced the design, planning, and management of the proposed project components and associated activities;

- how design, engineering, and management plans will maintain/enhance the existing ecosystemic integrity, focusing on wildlife habitats, including freshwater habitat, marine habitat, and terrestrial habitat;
- the socio-ecological systems established for the assessment of potential impacts;
- how regional health, social, economic, and cultural conditions have influenced the proposed project design. For example, how local preferences and labour capacity have influenced the design of work rotations, pace of construction, and employment policy;
- how potential impacts to humans (e.g., socio-economic and well-being) and communities have influenced the proposed project design to protect and/or minimize adverse impacts due to remote locations. For example, the potential for increased social stratification, potential for exposure to new infections or diseases, impacts to vulnerable populations, increased stress on local infrastructure such as housing, roads, waste and water management systems, obstruction to enjoyment of the natural environment (e.g., by changes to sound level, obstructions to view, obstructions to access), loss of access to harvesting and gathering areas, loss of availability and both real and perceived changes to the quality of harvest, and direct or indirect impacts to food security to social and mental health, etc.);
- how potential impacts to workers and the public under both normal operations and potential accident and malfunction situations have influenced the design of the proposed project;
- how potential impacts to aquatic and terrestrial species (e.g., caribou, Polar bears, Peregrine falcons, belugas, fish etc.) have influenced the project design, especially indicating methods to avoid and/or minimize impacts to aquatic and terrestrial wildlife, including the geographical location of project components, and how the proposed project has been designed to limit the overall size of the proposed project footprint and minimize sensory disturbance to aquatic and terrestrial species;
- how project design, particularly project infrastructure and site preparation, has been influenced by the distribution of archaeological resources and sites used for harvesting of fish and wildlife and quarrying of soapstone;
- how public engagement, Inuit Qaujimajatuqangit, Traditional Knowledge and Community Knowledge have influenced the planning and design of the proposed project and development of the Impact Statement;
- how the Proponent has applied the precautionary principle in its project planning, design, and management;
- how the proposed project would contribute to sustainability;
- the potential for future phases of project development; and
- demonstration that the proposed project can be closed in a manner that does not adversely impact members of the public and/or the environment, including:

- A description of the estimated contaminant and other material (physical and chemical) levels in the environment as well as estimated doses to members of the public after closure and remediation; and
- Consideration for the overall aesthetics of the site after closure and remediation.

All assumptions underlying design features which are relevant to the impact assessment should be explicitly stated.

4.3.2 Purpose and Need of Project

The Impact Statement shall describe the purpose and need for the proposed project by outlining the objectives of the project from the perspectives of the Proponent and by the public as expressed through engagement. The rationale for the proposed project must include the following points:

- Any problems and opportunities that the proposed project is intended to satisfy;
- General feasibility from an economic perspective, including how the proposed project would directly or indirectly benefit communities in Nunavut;
- An assessment of the longer-term strategic implications of the proposed project, and how it may affect or contribute to transportation and other existing or proposed infrastructure networks in Nunavut;
- Identification of past, current, and potential future users of the local study area, regional study area, and project infrastructure, including commercial, government, public, and private; and
- An analysis of the overall net benefit of the proposed project in terms of Nunavut, and of Canada as a whole. The net benefit analysis shall not only include considerations of likely economic benefits, but also any adverse social, cultural, and economic impacts that could occur, including but not limited to alternative economic activities that may be reduced or lost as a result of the proposed project.

Discussions addressing the above points shall be supported by an analysis of the positive and negative social and economic impacts on existing industries, markets, and communities over the life of the proposed project. This analysis should also indicate the distribution and magnitude of benefits and/or losses to specific well-being and mental health of socio-economic groups in the relevant study area. See [Section 4.5.2](#) for additional requirements and information on socio-economic impact assessment.

4.3.2.1 Alternatives

The Impact Statement shall include an explicit analysis of all alternative means of carrying out the proposed project components or activities, including a "no-go" alternative. This analysis must include the identification and application of criteria used to determine the technical feasibility and economic viability of the alternatives to the proposed project (e.g., transportation as well as

ecosystemic and socio-economic environments). This analysis must be done to a level of detail which is sufficient to allow the NIRB and the public to compare the proposed project with the alternatives and validate that the preferred plan is the most reasonable approach in terms of the economic costs and the ecosystemic, socio-economic, and well-being negative impacts and benefits, including cumulative impacts.

The Proponent must include reasons for selection of the project components as the preferred alternative, and the reasons for rejecting other alternatives. Where different routes are being considered for components such as roads and transmission line corridors, the Proponent must demonstrate strong consideration of Inuit Qaujimajatuqangit and avoidance of impacts on Inuit values. The preferred alternative means should be based on the consideration of ecosystemic, health, social, economic, well-being, and cultural impacts, technical feasibility and best available technology, economic viability, and application of the precautionary principle. If the preferred alternative changes throughout the course of its assessment, the Proponent shall consult with the NIRB to determine whether this proposed change would result in a change to the scope of the proposed project under Review.

The assessment of alternatives should demonstrate:

- The assessment of the technical and economic feasibility for each alternative has considered the:
 - vulnerability of the Arctic ecosystem, particularly in terms of the accelerated pace of climate change impacts;
 - certainty or uncertainty of the assessment;
 - lifestyle (cultural and hunting/harvesting of the area, isolation);
 - potential for extension of the life of the proposed project and/or phased approach;
- That the best available technologies have been considered and applied in determining alternative means;
- The criteria used to evaluate alternative means reflects the potential concern for both the short-term (during construction and operations) and long-term (after decommissioning and reclamation) physical-chemical stability and environmental impacts, including cumulative impacts, of the proposed project;
- The application of the precautionary principle, as defined in [Section 2.3](#), including consideration of uncertainty and potential for adverse impacts; and
- How the views, information, knowledge and opinions of potentially impacted communities, the public, and other participants have been taken into consideration in the assessment of all the alternative options. Information should include a discussion of how engagement and consultations by the Proponent have influenced the proposed project planning, and how the preferences of Nunavummiut, the public, and other participants have been considered by the Proponent in determining the preferred project alternatives.

4.3.3 Future Development

The Proponent shall identify any reasonably foreseeable expansions of the current project, the needs of required infrastructure, and known resources. The Proponent shall provide as much detail that they have at the time of writing the Impact Statement. This includes providing sufficient information regarding foreseeable future development¹⁵ related to the proposed project to ensure that the Proponent is not ‘project splitting’¹⁶. Conceptual design is normally sufficient when providing information on future development.

In addition, the Proponent shall discuss how any foreseeable future development scenarios have been taken into consideration when designing the infrastructure and ancillary utilities for the proposed project. The Proponent’s assessment of cumulative impacts of the proposed project shall also include the future development scenarios as outlined above.

4.3.4 Economic and Employment Information

To understand the context of the proposed project, the Impact Statement shall include a description of the economic and employment aspects (including operational costs and employment opportunities) of the proposed project. This information is expected to inform the impact assessment for the socio-economic environment and socio-economic components ([Section 4.5.2.3](#)), and shall include:

- Capital costs, estimated operating costs, including closure costs and the total expected revenues (current market values);
- Estimation of the number of full and part-time jobs to be created directly and indirectly by the proposed project, with consideration of local business and supply contracting;
- The types of jobs, required skills and education levels (using a recognized classification system) including training requirements for each position;
- Opportunities for employment;
- The number of person years of work, broken down by various phases of the proposed project;
- Contracting and procurement information for each phase of the Project including, if known, a breakdown of the number and types of jobs that will be done by contractors and what the contractor obligations to employees will be. This includes opportunities for

¹⁵ **Reasonably foreseeable future development:** Projects or activities that are currently under regulatory review or that will be submitted for regulatory review in the near future, as determined by the existence of a proposed project description, letter of intent, or any regulatory application filed with an authorizing agency.

¹⁶ **Project Splitting:** Refers to the practice of Proponents separating a project into smaller parts for the Impact Assessment process, often to prevent a higher-level assessment or to reduce the potential for predictions of significance of impacts from the Project on the environment. When decided if a project proposal should be considered as an individual project or as an amendment to an existing project, the NIRB assesses the proposed scope and whether components are integrally linked to an original Project or can be considered separately.

these contracts to create Inuit owned and locally owned business. If applicable, this should include any assistance the Proponent will provide Inuit and local entrepreneurs;

- Communities of focus for hiring opportunities and anticipated hiring policies;
- Worker housing situations including number of workers expected to be residing onsite or in workers' camp(s), on-site services and facilities for workers, transportation to work and proposed work schedule;
- Discussion of the commuting arrangements for local hired workers (Inuit and non-Inuit), especially those who live in the communities without proposed direct air transport to the proposed project site(s) and how the Proponent plans to support the fly-in/fly-out workforce with in-community liaison workers;
- Expectations and perceptions to employment at the proposed project by the residents in the proposed project regional study area;
- Information on benefits, including employee assistance programs that might be expected by employees and whether these benefits will extend to contractor employees (e.g. training, skill enhancement, career planning, employee counselling, cultural support, wellness program);
- Information on training opportunities and/or support provided to Inuit to be able to advance within the company, including towards management roles;
- Information on training opportunities and retention plans for women, specifically Inuit women;
- Information on the management of workplace harassment and discrimination, including any policies and training offered to all employees;
- Information on assistance programs and/or support provided to Inuit to successfully enter the contracting and procurement process; and
- Workplace policies and programs (e.g. codes of conduct, workplace safety programs, cultural awareness programs, on-site support for Inuit and non-Inuit workers, community support for worker's families, and country food programs).

4.4 Impact Assessment Methodology

At a minimum the Impact Statement shall contain the information as outlined in Article 12, Section 12.5.2 of the *Nunavut Agreement* and s. 101(3) of the *NuPPAA* and is also expected to satisfy requirements of s. 103 of the *NuPPAA*. The NIRB will consider the need for alternatives to, and alternative means of carrying out, the proposed project in assessing the justification for any significant ecosystemic and socio-economic impacts identified both separately and holistically, and in formulating its recommendations to the responsible Ministers.

4.4.1 Public Engagement

Table 5: Requirements for Meaningful Public Engagement

Meaningful Public Engagement and Participants in Engagement
Information from engagement activities has contributed to decisions regarding the proposed project, including project design and plans, scoping, collection and development of baseline information, assessment of impacts, and informed mitigation or accommodating identified impacts and in designing monitoring and follow up programs.
Public engagement plan submitted.
The Proponent has meaningfully engaged the public and potentially impacted communities throughout development of the impact statement.
Methods of Engagement
The methods used to undertake each engagement are described.
Engagement Details and Outcomes
The information and knowledge shared during each engagement are described.
Details on how the Proponent intends to address the concerns identified through public engagement throughout the life of the project. Rationale for conclusions differing from community views must be provided.
Description on how the Proponent used public engagement to identify the extent the proposed project reflects the priorities and values of the residents of the designated area.

Proponents are required to engage potentially impacted communities and the public about projects and activities in a way that informs them, consults with them, and enables them to participate in and inform the development of the project, impact assessment, and impact statement. Public engagement, and particularly consultation, is intended to create an open, honest, and transparent process including the public in decisions about project activities whether proposed or included within a project certificate. The focus of public engagement is to create opportunities to exchange and clarify information, gather input, and promote collaboration and understanding amongst the public to inform the project design, as well as the NIRB's Impact Assessment processes, proceedings, and decision-making. Public engagement and gathering of Inuit Qaujimajatuqangit are different exercises (see [Section 4.4.2](#) for requirements related to Inuit Qaujimajatuqangit).

This section provides guidance on Proponent requirements for public engagement in development of a project and Impact Statement and builds on the information on Public

Engagement in the NIRB context presented in [Section 2.2](#). A checklist that Proponents can use to demonstrate meaningful engagement is available in [Appendix D](#).

Proponents are encouraged to read the NIRB's Guide to Public Engagement for additional guidance on public engagement for projects undergoing assessment through the NIRB's processes, available at: <https://www.nirb.ca/content/guides>

4.4.1.1 Meaningful Public Engagement

The NIRB requires Proponents to plan for and provide meaningful public engagement opportunities throughout all stages of a project as well as throughout the NIRB's assessment of a proposed project. Meaningful engagement encompasses how Proponents interact with potentially impacted communities and the public, how information and knowledge is exchanged, interpreted, and validated, and how this input is integrated into project development, impact assessment, and the Impact Statement. The Proponent shall demonstrate that not only have they asked for input from the communities but also links the input received with tangible impacts on the project, the Impact Statement, approach to mitigation, long-term planning etc.

The Proponent shall demonstrate how it has meaningfully engaged with the public and potentially impacted communities when developing its Impact Statement. The Proponent shall focus on how it has engaged with individuals and organizations from potentially impacted communities. In reviewing public engagement activities undertaken by a Proponent, the NIRB considers, at a minimum, whether the following elements of meaningful public engagement have been incorporated into the Proponent's public engagement plans and activities:

- Building relationships that start **early in project development** and prior to the NIRB's impact assessment processes;
- Consistent and ongoing engagement with multiple demographic groups/organizations/individuals;
- Providing early notification to the public engagement of opportunities throughout the project design and impact assessment;
- Requesting feedback from communities on how they want to be engaged;
- Clearly communicating the process and objectives of public engagement and how public feedback, including how Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge, was collected, interpreted, used, and informed the project, impact assessment, and/or mitigation and management plans;
- Ensuring appropriate, relevant, and accessible information (including translations and interpretation into the preferred language) are provided in a timely manner that ensures the public has sufficient opportunity and time to assess the information;

- Demonstrating respect and an understanding of the context associated with the knowledge shared by the community and discussing with community(ies) to ensure it is captured correctly;
- Providing reasonable timelines that recognize seasonal or other constraints on the availability of the public;
- Designing plans and activities that allow for levels of public engagement appropriate to the circumstances; and
- Demonstrating the willingness and flexibility required to adapt public engagement plans and processes as may be necessary to ensure the public engagement objectives are achieved.

4.4.1.2 Participants in Engagement

The ‘public’ within this document refers to interested parties, the general public including any person in a potentially impacted community, and organized community or other interest groups (including Knowledge holders, Inuit organizations, governments, etc.).

Potentially impacted communities refer to municipalities identified as having the potential to be impacted by activities associated with a proposed project.

Proponents are responsible for identifying communities that could potentially be impacted by a proposed project. With the input of parties to a process, the NIRB further identifies potentially impacted communities during the screening of a proposed project as well as during the scoping phase of a Review (see [Section 4.4.3](#)). Federal and territorial governments may also identify potentially impacted parties to be included in the assessment process.

The NIRB recommends that Proponents engage with the applicable Regional Inuit Association, Hunters and Trappers Organizations and Associations and Hamlets for guidance and best practices for engaging potentially impacted communities in Nunavut.

The NIRB recommends that the Proponent reach out to local organizations for guidance and best practices for engaging potentially impacted communities, including identifying individuals to engage. For communities in Nunavut, the Regional Inuit Associations, Hunters and Trappers Organizations and Associations, and the Hamlets are a recommended first point of contact. Depending on the nature and location of the proposed project, the Proponent is reminded to also engage with government departments and agencies in neighbouring jurisdictions as well as local government and regional Indigenous organizations in areas whose members may be impacted or have interest in the Project, including Indigenous Groups asserting s. 35 rights.

The Proponents are reminded to reach out to the NIRB or refer to the NIRB’s guidance documents for additional direction and requirements regarding public consultation and to assist in developing an engagement strategy.

Non-exhaustive lists of organizations for Proponents to consider engaging with both within and adjacent to the Nunavut Settlement Area are available in [Appendix C](#). Proponents are cautioned that each community varies and the individuals and groups that should be consulted in each community must adequately reflect community circumstances. Proponents may also have additional requirements to engage with potentially impacted communities and organizations in overlap areas and neighboring jurisdictions outside of the Nunavut Settlement Area, including Indigenous Groups asserting s. 35 rights (see [Section 4.4.5.5](#) for additional information). Proponents are encouraged to engage with applicable organizations on who should be engaged within each community and recommendation for engagement best practices within these respective areas.

4.4.1.3 Methods of Engagement

The Impact Statement shall describe the methods of engagement and provide, at a minimum:

- Purpose of each engagement method;
- Location, timing, and type of engagement (e.g., in-person/hybrid/virtual meeting, workshop, written, social media, Indigenous Knowledge study, community led);
- Selection process for identifying groups and individuals to participate that consider accessibility, inclusivity, and relationship-building with each party;
- Roles and responsibilities of parties in collecting, analyzing, interpreting, and synthesizing information and knowledge; and
- Planned engagement throughout the life of the project.

4.4.1.4 Engagement Details and Outcomes

The Impact Statement shall describe the information shared during each engagement, including at a minimum:

- Participant composition: as able and appropriate, groups should be distinguished by gender, age, or other community relevant factors such as hunters, trappers, harvester etc. to support a Gender Based Analysis + assessment;
- Use of regional languages/dialects for translation of written documents and live interpretation;
- How communication was facilitated with the public through accommodating culturally appropriate ways;

- Types and content of information shared by the Proponent (e.g. reports, posters, videos, three-dimensional modeling, and brochures);
- Efforts made to distribute project information, including the organizations and individuals to whom the information was distributed;
- A summary of key dialogues, information and knowledge shared, and issues and comments from participants during all engagement activities;
- How the Proponent intends to address the concerns identified through the life of the project, extending to monitoring and post-closure;
- Rationale for conclusions differing from community views; and
- Plans, if any, for follow-up for each engagement.

The Impact Statement must discuss the extent to which information from engagement activities contributed to decisions regarding the proposed project, including project design and plans, scoping, development and collection of baseline information, and informed mitigation or accommodating identified impacts and in designing monitoring and follow up programs.

Future planned engagement activities should be identified, and if none are planned, the rationale for not undertaking future engagement activities should be included.

4.4.2 Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge

Table 6: Requirements for Treatment of Inuit Qaujimajatuqangit

Methods for Gathering Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge
Inuit Qaujimajatuqangit Plan submitted.
The methodology used to gather, record, interpret, analyze, and synthesize Inuit Qaujimajatuqangit is clearly described.
Applicable Inuit protocols were followed for the collection, protection, and use of Inuit Qaujimajatuqangit and this is demonstrated in the Proponent's submissions. The information shared has been validated.
Free, Prior, and Informed consent of Knowledge holders involved in Project Inuit Qaujimajatuqangit studies granted to gather and apply the knowledge shared for the development of the Impact Statement.
Details and Outcomes
Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge has been gathered, evaluated, and considered in the conclusions presented in the Impact Statement.

Plans to address concerns identified through Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge.

Rationale for any differences in conclusions between knowledge sources and plans to address.

Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge has informed development of mitigation and management measures.

Inuit perspectives on what constitutes a significant impact and whether the project will cause or contribute to significant adverse impacts are integrated into the Impact Statement.

Managing Confidential Information

Confidential information managed appropriately.

Proponents are required to incorporate Inuit Qaujimajatuqangit, as well as any Indigenous Knowledge or Community Knowledge as appropriate, into project development, impact assessment, and the Impact Statement (additional information on Inuit Qaujimajatuqangit in the NIRB context is available in [Section 2.1](#)). For additional information on assessment of transboundary impacts and impacts to Indigenous Groups asserting s. 35 Rights please see [Section 4.4.5.5](#). Gathering Inuit Qaujimajatuqangit, as well as Indigenous Knowledge, and Community Knowledge, should begin early in the process, as this knowledge may provide important insights related to:

- Project design from the outset and throughout the impact assessment (e.g., Are there important sites that should be avoided in project routing and siting? Are there alternative approaches to project design? How will Inuit be able to use the land pos-closure?);
- Identification of valued components, indicators or measurement methods during scoping;
- Identification of appropriate spatial and temporal boundaries during scoping;
- Baseline and trends over time data collection (e.g., bio-physical, social, health, economic and cultural, land use, traditional place names);
- Identification of thresholds of acceptable change against which to assess Project-specific and cumulative impacts;
- Conduct of initial impact characterization, including identification of direct and indirect impact pathways;
- Identification of potential mitigation, accommodation and monitoring measures;
- Estimation of the significance (importance) of residual impacts after the application of mitigation measures; and

- Identification of considerations for, and development of, follow-up and monitoring procedures.

The Proponent shall describe how Inuit Qaujimajatuqangit, Indigenous Knowledge, and/or Community Knowledge has been **gathered, evaluated, and considered** in the conclusions presented in the impact statement. This includes the information shared (e.g. land use, wildlife patterns), questions and concerns raised, interactions between people, and how knowledge is produced and shared. How Inuit Qaujimajatuqangit, Indigenous Knowledge, or Community is described, as well as the protocols for the collection, protection, and use of Inuit Qaujimajatuqangit will differ by regions and even communities. Proponents are **strongly encouraged** to engage with the applicable Regional Inuit Organization and local organizations for their respective processes and best practices developed (see [Appendix C](#) for a list of potential organizations to engage with in Nunavut as well as neighbouring jurisdictions). Proponents are reminded that, while related, public engagement and gathering of Inuit Qaujimajatuqangit are different exercises (see [Section 4.4.1](#) for requirements related to Public Engagement).

Proponents are encouraged to read the NIRB's Proponent Guide to the treatment of Inuit Qaujimajatuqangit, available at: <https://www.nirb.ca/content/guides>. Additional guidance includes, but is not limited to:

- Working with Designated Inuit Organizations on the collection, protection, and use of Inuit Qaujimajatuqangit (includes storage and sharing of information);
- Integrating Inuit Qaujimajatuqangit with scientific approaches and information. This may include:
 - Co-presentation of Inuit Qaujimajatuqangit with scientific data and information,
 - Explanation of any areas where these sources and frameworks of understanding differ or where differing conclusions may be drawn,
 - Identification of why (on any binary questions) one source has been trusted over another,
 - On any points of disagreement/differing conclusions, tracking or retracing of how these conclusions were drawn and clear identification of whether and how different conclusions were reconciled through further engagement.
- Demonstrating Inuit-led protocols have been followed;
- Using Inuit Qaujimajatuqangit to:
 - Identify Valued Components
 - Determine the level of significance of identified impacts
 - Inform project monitoring methods
- Verification that conclusions have been captured correctly; and

- Expected practices when collecting, gathering, and recording Inuit Qaujimajatuqangit, including:
 - Free, Prior, and Informed Consent from all participants
 - Ownership, management, storage, and access to Inuit Qaujimajatuqangit
 - Analyzing and interpreting Inuit Qaujimajatuqangit
 - Attending to differences in information between and within communities
 - Validating and verifying with communities that Inuit Qaujimajatuqangit and conclusions have been captured correctly
 - Transmitting Inuit Qaujimajatuqangit and Communicating it in Public Forums
 - Timelines and temporal scale
- Individual Knowledge holders involved in sharing and validating Inuit Qaujimajatuqangit may change throughout an individual process.

4.4.2.1 Methods for Gathering Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge

The Proponent shall provide background on the methodology used to collect, interpret, analyze, and synthesize Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge, including at a minimum, but not limited to:

- Use of previously collected Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge from literature, databases, or other sources, including for original Project assessments for amendments;
- Design of studies used to facilitate Knowledge sharing;
- Methods of engagement as detailed in [Section 4.4.1.3](#);
- Roles and responsibilities of all concerned individuals and organizations in collecting, analyzing, interpreting, and synthesizing this data (including participants in Knowledge studies); and
- Appropriate protocols acceptable to impacted Inuit communities for repatriation and long-term storage of Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge, acknowledging the owners of this data.

4.4.2.2 Details and Outcomes

The Impact Statement shall describe the information shared during each engagement specific to Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge as described in [Section 4.4.2](#). Additional detail that must be included are, at a minimum:

- Efforts to made to collect knowledge from Elders, women, youth, marginalized groups, or harvesters familiar with the proposed project area and the regional study area;
- How questions and concerns were addressed;
- Plans for follow-up with Knowledge holders;
- Description of how Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge informed project and impact assessment designs; and
- Knowledge shared and conclusions as expressed by Knowledge holders.

In all sections of the Impact Statement, the Proponent shall discuss how it incorporated Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge in areas such as project design, baseline data collection, impact prediction, significance assessment, and the development of mitigation and monitoring programs.

For instances where there are variations in knowledge between Inuit Qaujimajatuqangit, Indigenous and Community Knowledge and scientific conclusions, the Proponent must consider its obligation to apply the precautionary principle (as described further in [Section 2.3](#)) when reconciling discrepancies. In situations where there is a high degree of uncertainty, the Proponent shall work together with contributing parties to come up with a sensible approach within the parameters of the *Nunavut Agreement* and provide a detailed record of decision-making rationale and efforts to collaboratively reconcile different findings between scientific knowledge and Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge should be outlined by the Proponent.

4.4.2.3 Managing Confidential Information

The availability of Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge, or ability to share publicly, may be limited by obligations of confidentiality and other ethical obligations. The Proponent is expected to take reasonable measures to access Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge and reflect the knowledge shared throughout the development of the project including the Impact Statement. Proponents should demonstrate that they have the permission of Knowledge holders to gather and apply the knowledge shared for the development of the Impact Statement.

The NIRB understands that the Proponent may enter into confidentiality agreements detailing what information can be shared or not. For example, sensitive information such as specific hunting or harvesting locations may be shared by Knowledge holders with Proponents that informs project decisions (such as project design, impact assessment, and mitigation measures) that they do not want shared publicly. Information important to the Impact Statement can be generalized or summarized without providing details (such as hunting of caribou occurs in a general area and mitigation measures have been applied).

Proponents should work with Knowledge holders and Designated Inuit Organizations on the appropriate methods of storing and sharing information shared. There may be instances when,

with the consent of Knowledge holders, the Proponent may share confidential information with the Board to inform their decision-making. Per the NIRB’s Rules of Procedure, Proponents may file a motion with the NIRB requesting that a file be made confidential and not be posted publicly. Proponent shall identify or reference sources appropriately in cases where ownership or confidentiality concerns exist.

4.4.3 Scope of the Impact Assessment

The scope of the impact assessment determines the:

- parameters of the assessment, including the temporal and spatial boundaries of the project;
- priority issues that parties have related to the proposed project; and
- valued ecosystemic and socio-economic components and greater systems to be considered.

During a standard Review process, the NIRB determines the scope of the Assessment with input from the Proponent and interested parties (e.g. Federal and Territorial Government departments, Designated Inuit Organizations, and members of the public). For additional information, please review the available guidance materials at <https://www.nirb.ca/content/guides>. If a Proponent chooses to submit a Project Proposal satisfying the requirements of a NIRB review at the Screening stage, they are expected to engage with potentially impacted communities, members of the public, and interested parties to inform the development of the scope.

4.4.3.1 Valued Ecosystemic and Socio-Economic Components

Table 7: Requirements for Identification of Valued Components

Identification of valued ecosystemic and socio-economic components, processes, and interactions that are likely to be impacted by the proposed project. Description of method of selection and assessment of adverse and beneficial impacts of the proposed project on the valued components.
Priority issues related to the proposed project as identified by parties.

The Impact Statement must detail the valued components identified for the impact assessment. The NIRB defines valued components as aspects of the ecosystemic and socio-economic environment that are of vital importance to a particular region or community. These are often further defined as valued ecosystemic components and valued socio-economic components. As noted in [Section 3.1](#), the Impact Statement should include the processes and interactions between the valued components selected that are likely to be impacted by the proposed project.

The final list of valued components to be presented in the Impact Statement shall be completed according to the evolution and design of the proposed project and reflect the knowledge of the

ecosystemic and socio-economic environment acquired through public engagement and through respectful incorporation of Inuit Qaujimajatuqangit, Community Knowledge, and Indigenous Knowledge. A list of valued ecosystemic and socio-economic valued components typically relevant to mining projects in Nunavut are available in [Appendix E](#). While this list is not exhaustive, it provides an appropriate starting point for the Proponent’s identification of relevant valued components.

The value of a component shall be considered not only in relation to its role in the ecosystem, but also the value placed on that component by humans, including for traditional use, cultural and social connection, and well-being. The Proponent shall provide a rationale for the selection of communities and relevant studies for which baseline data has been provided. For all valued components used in the assessment, the Proponent shall describe, explain, and justify the identified indicators, criteria, or parameters, as well as identified thresholds of impacts that would be used to identify changes in the valued components as outlined in [Section 4.5.5.6](#).

If relevant, the location of these valued components should be indicated on maps or charts, indicating to whom these components are important and the reasons why (e.g., related to ecosystemic, socio-economic (specifically health, cultural, archaeological, recreational, tourism, aesthetic) well-being, or other considerations. The Proponent should also indicate the specific geographical areas or ecosystems that are of particular concern, and their relation to the broader regional ecosystemic and socio-economic environments or values. The Proponent must describe how the valued components were selected and the methods used to predict and assess the impacts of the proposed project on these components.

The Proponent is expected to identify the proposed project components and activities that are anticipated to interact with the selected valued components. These components/activities could be grouped into the following categories:

- Components and activities related to site preparation, construction, operation (including reduced operation), maintenance, any potential modifications, temporary closure (care and maintenance), final closure (decommission and reclamation) and post-closure of the proposed project; and
- Components and activities induced by the project development, which will occur in the reasonably foreseeable future.

4.4.3.2 Assessment Boundaries

Table 8: Requirements for Spatial and Temporal Boundaries

Identification of spatial and temporal boundaries of the impact assessment.

The scope of the proposed project must include any NIRB defined temporal and spatial boundaries. The spatial and temporal boundaries used in the impact assessment may vary depending on the valued component and shall be considered separately for each component.

4.4.3.3 Spatial Boundaries

The Impact Statement shall define the spatial boundaries of the proposed project footprint as well as the maximum area potentially impacted by the project based on the boundaries for each individual type of impact. The Proponent is required to consult with potentially impacted communities, the public, and interested parties as well as the NIRB when defining the spatial boundaries used in the impact statement. Depending on the nature and location of the proposed project, the Proponent is encouraged to also engage with government departments and agencies as well as local government and regional Indigenous organizations in areas whose members may be impacted or have interest in the proposed project.

The following general spatial boundaries are suggested as a minimum for impact assessment:

- **Site study area:** the proposed project footprint (i.e., where project activities would be undertaken, including the proposed facilities, buildings and infrastructure, transportation corridors, access roads, shipping routes, etc. and any energy generation/transmission, water withdrawal and deposition, and granular or other natural resource gathering to support project physical works and activities).
- **Local Study Area:** the area inclusive of, and beyond the site study area, where there exists the reasonable potential for direct impacts due to project activities from any phase of the proposed project, ongoing normal activities, or to possible abnormal operating conditions. The geographic boundary will depend on the factor being considered (e.g., a local study area defined for the aquatic environment will differ from that defined for the atmospheric environment).
- **Regional Study Area:** the area within which there exists the potential for direct, indirect, and induced ecosystemic and socio-economic impacts of the proposed project that may interact with the impacts of other projects, resulting in the potential for cumulative impacts. The geographic boundaries for the regional study areas are also specific to the factor being considered and the area including lands, communities, and portions of Nunavut and other regions of Canada that may be relevant to the assessment of wider-spread impacts of the proposed project. The Proponent is advised to duly consider the transboundary implications of impacts to identified valued components and impacts to Indigenous Groups asserting s. 35 rights as a result of air and marine transportation (if applicable) for the proposed project.

The Impact Statement shall describe the spatial boundaries of each valued component either individually or as part of a system used to assess the potential adverse and beneficial impacts of the proposed project and provide a rationale for each boundary. The spatial boundaries of the assessment of the proposed project shall be determined based on the following criteria:

- The physical extent of project activities, including transportation routes;
- The extent of terrestrial and aquatic ecosystems and habitat potentially impacted by the proposed project, taking into account factors such as watersheds, and the migratory and/or life cycle of wildlife species, and demonstrated by evidence of the likely

geographic extent of impacts, supported by scientific methods, Inuit Qaujimajatuqangit, Traditional Knowledge, and Community Knowledge;

- Ecological impacts (e.g., with respect to pollutant transport, bioaccumulation, noise);
- The communities (both within and outside of the Nunavut Settlement Area) potentially directly or indirectly impacted by the proposed project;
- The extent to which traditional and contemporary land and/or aquatic use activities, including hunting, harvesting, fishing, gathering, occupancy, and land uses such as for cultural practices, travel and camps, and cultural connection (past, present, and future) could potentially be impacted by the proposed project;
- The size, nature and location of past, present, and reasonably foreseeable projects and activities which could interact with the items listed above; and
- Potential ecosystemic or socio-economic impacts outside of Nunavut.

The Impact Statement must contain a justification and rationale for all spatial boundaries and scales chosen and provide evidence that potentially impacted communities have been consulted about these spatial boundaries and their appropriateness. Where Inuit have identified alternative spatial boundaries, a rationale should be provided if they were not adopted. The Local and Regional Study Areas may vary between disciplines and between valued components and/or systems, as they represent the likely distribution of project impacts on individual components. For example, a local study area defined for the aquatic environment will differ from that defined for the atmospheric environment, which will differ from that defined for archaeological studies. The Proponent is not required to provide a comprehensive baseline description of the environment at each of the above scales but must provide sufficient detail to address the relevant ecosystemic, socio-economic, and cumulative impacts of the proposed project.

4.4.3.4 Temporal Boundaries

The Impact Statement shall define the temporal boundaries of the proposed project and assessment. The Proponent shall also consider where applicable, the temporal bounds of project alternatives under assessment, noting where they differ from those for the preferred option. As is the case for the determination of spatial boundaries, the temporal boundaries must indicate the range of appropriate scales at which baseline descriptions and the assessment of ecosystemic, socio-economic, and cumulative impacts are presented.

Like spatial boundaries, temporal boundaries may vary with, among other things, the type of impact being considered and with seasonal changes. The establishment of temporal boundaries has two aspects: the time-horizon used to predict changes, and the temporal variability and periodicity that characterize the predicted impacts. The time-horizon used for predicting change must be a function of the anticipated duration of the proposed project, including the final closure

and post-closure phases, the predicted impacts, and the predictive capability of the various disciplines at play.

The Impact Statement shall determine the temporal boundaries separately for the site preparation, construction, operation (including reduced operation), maintenance, any potential modifications, temporary closure (care and maintenance), final closure (decommission and reclamation) and post-closure periods, including planned activities to be undertaken in conjunction with the proposed project. The temporary closure period (or care and maintenance) covers the period of untimely closure of the proposed project and includes care and maintenance activities. The final closure period covers decommission and reclamation activities. The post-closure period covers the period after the proposed project has been decommissioned and abandoned and ends when the footprint has been reclaimed and returned as much as possible to its natural state and has been accepted as reclaimed by regulatory authorities.

Temporal boundaries of the post-closure period may span many years, depending on the site, the type of project, and the methods of closure.

For all temporal boundaries, the Impact Statement shall give a rationale and justification for the boundaries chosen, including a description of any engagement with potentially impacted communities, the public, or other interested parties including the incorporation of technical expertise, Inuit Qaujimajatuqangit, Traditional Knowledge, and Community Knowledge. The Proponent shall demonstrate consideration to traditional and contemporary land and/or aquatic uses and occupancy (past, present, and future) in addition to other factors to be considered in its determination of temporal boundaries for the proposed project. This will be informed through consultation with local land users.

In addition, the Proponent shall recognize the potential influence of climate change over time. In every instance where future climate change impacts to valued components or the proposed project are being considered, the Proponent shall include a range of potential outcomes drawing on a range of credible models and discuss the implications of each. For example, there may be no immediate danger of permafrost degradation, but the Proponent must incorporate the future possibility of this risk into the design of project components where applicable.

4.4.4 Description of the Ecosystemic and Socio-Economic Environments and Baseline Information

Table 9: Requirements for Baseline Information

Description of historical background and current baseline environment and ecosystemic and socio-economic trends within the proposed project area.

The Impact Assessment shall consider the *current* biological, physical, and socio-economic environment setting as well as *variability* and *trends over time*, including *historic* conditions. For example, even if there are no caribou when baseline studies are conducted, it does not

necessarily mean there will be no caribou in the future if they historically inhabited a particular area, especially if Inuit Qaujimajatuqangit indicated caribou historically inhabited this area.

4.4.4.1 Establishing Baselines

Baseline conditions describe the ecosystemic, and socio-economic environment conditions before project development. The description of baseline conditions shall include both qualitative and quantitative information and data, as necessary, to understand the valued components of the environment identified. Baseline shall include well-being, food security, cultural practices, and land use. Recognizing the relationships between valued components and Inuit Qaujimajatuqangit and/or cultural practices, it is important that the Impact Statement reflects a holistic view of what the current state of the environment is, not just for a scientific view, but from an Inuit lens. The description of the historical background, current baseline conditions, and the impact trends shall include a consideration of past projects and activities carried out within the applicable study areas (project footprint, Local Study Area, Regional Study Area) which may have overlapping study areas. Baseline conditions, including time scales, must be informed by available and relevant scientific data as well as Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge, including:

- Review of published literature
- Technical scientific reports
- Peer-reviewed scientific literature
- Results of Indigenous Knowledge studies

The Proponent shall explain methodologies used for developing an appropriate baseline, including how the public were involved in establishing baseline conditions. When developing baseline(s) for the Impact Statement, the Proponent shall consider other types of information in addition to scientific data, such as Inuit and other Indigenous stories and myths, perception of the land, well-being, food security, cultural practices, and land use. The Proponent shall work with potentially impacted communities and Indigenous organizations to appropriately identify and incorporate this knowledge and information.

To identify natural fluctuations and trends, including cyclical and other recurrent phenomena, the Proponent shall collect baseline data to reflect sufficient time, depth, and geographic broadness of both temporal and spatial scale. For example, populations and distributions of wildlife are known to fluctuate in cyclic trends over extensive time periods and geographic ranges and it could take several years to conduct the field research necessary to collect adequate baseline information across all seasons. As well, the Proponent should consider the existing impacts of and trends arising due to climate change on valued components.

To understand the natural ecological conditions and the potential impacts from the proposed project, the Proponent should consider the design of all ecosystemic and socio-economic environmental monitoring programs to ensure that the baseline data required is useful in understanding the relationship between the natural ecological conditions and the potential

project impacts on these conditions. Proponents are encouraged to reach out to relevant authorities for detailed guidance on baseline collection. To plan for and prepare the necessary baseline information in advance of an impact assessment, the NIRB strongly encourages Proponents of major projects to engage potentially impacted communities, the public and interested parties, including government and the applicable Regional Inuit Association(s), as well as the NIRB during the development of the proposed project.

At a minimum, baseline information should be:

- Collected in a manner conducive to detailed analyses, extrapolations, and reliable predictions;
- Suitable for estimating pre-project (historical) baseline conditions;
- Used to predict potential impacts from the project;
- Collected with consideration to seasonal or temporal variations, ensuring a comprehensive representation;
- Supportive of evaluations of post-project changes in conditions;
- Gathered in collaboration or consultation with relevant parties, ensuring diverse insights;
- Transparent and accessible; and
- Adhere to recognized data standards or methodologies to ensure consistency.

4.4.4.2 Gaps and Uncertainties

The Impact Statement must include any gaps and uncertainties associated with the data collected and information used. The methodology and/or steps to be taken to fill information gaps shall be discussed, as deficiencies in baseline data increase uncertainties in the prediction of potential impacts, and consequently may require an intensification of corresponding monitoring and mitigation programs ([Section 4.6.3](#)). The Proponent must identify if scientific and Inuit Qaujimajatuqangit findings differ and reasons for their final determinations.

For scientific data collection, information should be included on the:

- adequacy of data used;
- confidence levels associated with baseline data; and
- identification of significant gaps in knowledge and understanding and analyses.

The Proponent shall include any gaps or uncertainties identified by knowledge holders involved in the collection and interpretation of Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge.

4.4.5 Impact Assessment Approach

The required impact assessment, shall describe:

- Baseline information (including current and historic conditions) and trends for change;
- Potential impacts on individual valued components;
- Potential impacts and changes to the valued components as they interrelate to form systems (or collective impacts), including the capability of systems to maintain their structure and functions and to support biological and ecological diversity;
- Potential cumulative impacts of the proposed project on the valued components as well as the systems identified;
- Potential for transboundary impacts;
- Potential impacts to Indigenous Peoples asserting s. 35 rights;
- Proposed mitigation measures to avoid, reduce, or offset predicted impacts;
- Predicted residual impacts after mitigation measures that have been applied; and
- Predicted significance of identified impacts.

Proponents are expected to thoroughly assess the potential impacts that have been identified by communities as issues of concerns, regardless of the Proponent's findings on the predicted significance of those impacts. This would allow parties to better consider the potential impacts to reach their own conclusions about the significance of those impacts.

Impact analysis on individual Valued Components

Requirements for the impact assessment for individual valued components are detailed in the following subsections of [Sections 4.4.5](#) and [4.5](#)). The impact assessment for each valued component shall be linked to a list of project components and activities which they may interact with and which may result in in the potential for impacts.

A matrix, table, or a comparable tool should be used to identify potential impacts from the project on the environment.

The Proponent is encouraged to engage with potentially impacted communities, the public, and interested parties to identify appropriate methods and tools for identifying and illustrating the potential for impacts. Requirements and guidance specific to the impact assessment of ecosystemic and socio-economic components are detailed in [Section 4.5](#). Based on the predicted potential adverse impacts, the proposed mitigation measures shall be addressed in the corresponding management plans as listed in [Section 4.6](#).

Impact analysis on systems

For the Standard Impact Statement guidelines, a system is defined as “an interconnected set of elements that is coherently organized in a way that achieves a purpose”.¹⁷ Individual valued components interact to form systems, which do not exist in isolation and are interrelated. This level of assessment is important to identify *collective impacts* and impacts to overall ecological function and land use by people. Similar to the final list of valued components included in an assessment, specific systems assessed may vary. While the parties to a Review, including the public, would be expected to inform the specific systems evaluated.

System

Interacting natural systems that include biological, physical, social, and economic components of the environment (e.g., a river system includes water, soil, air, fish, place for fishing etc.).

A systems analysis is a more high-level and holistic evaluation of collective impacts to the environment and should focus on the capability of natural systems (local and regional) to maintain their structure and functions and to support biological and ecological diversity. Emphasis should further be placed on the relationship of potentially impacted communities to the system and the value placed by people. The analysis should build off the assessment of impacts to those individual valued components that form a particular system. Considerations should include:¹⁸

- The valued components comprising the system
- Potential individual and collective impacts to the valued components in the system
- Potential cumulative impacts to identified systems
- Potential impacts or changes to the function of the system

Impact Assessment should be informed by:

- Inuit Qaujimajatuqangit
- Indigenous Knowledge
- Community Knowledge
- Scientific evidence
- Legislated requirements
- Community values
- Professional judgement

¹⁷ Meadows, Donella H. (2008). *Thinking in Systems: A Primer*. White River Junction: Chelsea Green Publishing. P. 11

¹⁸ List informed by MVEIRB Pine Point Guidelines

Key inputs into the impact assessment:

- Published literature
- Peer-reviewed scientific reports
- Potentially impacted communities
- The public, governments, and organizations
- Adjacent jurisdictions to the designated areas as applicable

4.4.5.1 Impact Prediction

Table 10: Requirements for Impact Prediction

Description of how scientific evidence, Inuit Qaujimajatuqangit, Traditional Knowledge, and/or Community Knowledge was used to predict impacts.
Description of how well-being and the values of potentially impacted communities are reflected in the prediction of impacts.
Description of how engagement with specific groups informed the impact assessment and predictions.
Gaps or uncertainty in the impact assessment (including the methods used, information available, and results) identified.
Key differences in conclusions drawn from knowledge sources and justification for the Proponent’s preference, if any, identified and described.

The Proponent shall assess the potential for short and long-term direct, indirect, induced, and cumulative impacts – including transboundary impacts and impacts to Indigenous Groups asserting s. 35 rights – of the proposed project on the ecosystemic and socio-economic environments, and the interactions between valued components and the greater systems they are a part of. The Proponent shall provide a discussion on how the predicted changes or impacts compare to baseline conditions (see [Section 4.4.4](#)). The Proponent shall also describe its assessment of the degree of uncertainty associated with each predicted impact. For a full list of requirements and guidance for the impact assessment of the ecosystemic and socio-economic environments see [Section 4.5](#).

The Proponent shall identify potential impacts to each valued component and identified systems resulting from each proposed project phase, including impacts arising from accidental events and malfunctions, with established mitigation (e.g., industry standard practices) used to draw impact predictions. Predictions shall be presented with explanations and justification, including the following:

- Explain how scientific and engineering data, Inuit Qaujimajatuqangit, Indigenous Knowledge and/or Community Knowledge informed the identification of impacts, determination of mitigation, and significance;

- Document and justify study methodologies, including mathematical or numerical modeling and statistical analyses (see [Section 3.1](#));
- Support analyses, interpretation of results and conclusions with reference to appropriate literature, reports, engagement, studies;
- Document assumptions and limitations of data collection and analyses, and describe how uncertainty in impact predictions have been dealt with;
- Identify which impact prediction studies included the assistance of communities and individuals, who was involved (if the information can be made public), and how participants were selected and were engaged in the impact prediction (see [Section 4.4.1](#));
- How Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge was used to identify potential impacts and where conclusions drawn from knowledge sources differ, the Proponent will identify efforts it has made and mitigation, monitoring, and accommodation measures it has adopted to reconcile these differences.
- Identify all proposed mitigation measures and adaptive management strategies, if applicable;
- Describe or characterize the potential residual impacts; and
- Describe the potential significance of residual impacts.

4.4.5.2 Impacts of the Environment on the Project

Table 11: Requirements for Predicting Potential Impacts of the Environment on the Project

The anticipated impacts of the ecosystemic environment on the project, including impacts associated with natural phenomena, such as meteorological and seismological activity and climate change.

The Proponent shall discuss the potential impacts of the environment on the proposed project, considering such factors as:

- Geotechnical hazards (including slope and underground instability, differential or thaw settlement, frost heave, ice scour and seismic activity);
- Unfavourable geological conditions (weak zones and/or faults);
- Permafrost (ground instability related to permafrost thaw and artesian groundwater pressure due to permafrost confinement);
- Severe weather events (extreme precipitation events, flooding, storm surges etc.); and
- Sea ice conditions, sea level trends, subsidence, and climate change.

While predictions of impacts of the environment on the Project can build off the assessment of predicted impacts from the Project on valued components ([Sections 4.5](#)), this assessment should include a discussion of the combined or collective impacts of environmental factors on the Project and recognition of changes in likelihood and severity of factors due to climate change.

4.4.5.3 Climate Change

Table 12: Requirements for Climate Change Assessment

Identifying GHG Emissions and Project Impacts to Climate Change Commitments
Analysis of the Project's greenhouse gas (GHG) emissions against relevant emissions reduction efforts, targets, or climate change legislation, regulation, or policies.
Impact on carbon sinks, both positive and negative.
When required, an upstream GHG assessment.
When required, a net-zero plan.
Proposed mitigation measures, including an evaluation of best available technologies and environmental practices as well as offsetting.
Identifying Project Impacts on Valued Components in the Context of Climate Change
Rationale for the selection of climate models and associated scenarios, including an assessment of the degree of uncertainty associated with climate models and scenarios applied, and the related impact on other predictions in the Impact Statement.
Impacts of climate change on valued components.
Vulnerability of valued components in the context of climate change, including how the vulnerability of valued components may change over time, and how this informs the assessment of the Project's impact on valued components.
Where interactions occur with the Project, an incorporation of climate change uncertainty into the assessment of the Project's impacts on valued components.
How the modelling and evaluation of impacts of climate change to valued components and proposed mitigations were informed by the public engagement process.
How the Proponent has considered and reflected Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge in the assessment of climate change impacts on valued components, including how engagement informed the assessment and proposed mitigations of impacts to valued components.
How climate change has informed the proposed mitigation measures, particularly the resilience and/or adaptation of valued components to the impacts from the Project.
Assessing Project Climate Change Resilience

Rationale for the selection of natural hazards and influences of nature for the assessment of project resilience, including how climate parameters and associated trends have informed the selection and assessment.

Rationale for selection of climate models and associated scenarios, including an assessment of the degree of uncertainty or confidence associated with climate models and scenarios applied, and the related impact on other predictions in the Impact Statement.

Risks and/or impacts on the Project from climate change, including implications and considerations for project design, planning, construction, operations, and closure.

Statement on the climate change resilience of the project, including operations, financial viability, proposed commitments and/or mitigation measures, and closure.

Evidence that Inuit perspectives and observations on climate change, Inuit Qaujimajatuqangit, Indigenous Knowledge, Community Knowledge, and best available scientific knowledge, has been applied to inform the understanding and assessment of potential future risks due to climate change.

Climate change is a major environmental challenge that is impacting the North faster than the rest of Canada, and three times faster than the global average.¹⁹ Climate change has added complexity and uncertainty to both predicting future conditions, as past conditions or trends may no longer be an accurate measure of what to expect in the future, and uncertainty in the reliability of project design, infrastructure, and mitigation strategies.

As a result, the Impact Statement shall include a discussion of climate change, including the extent to which the impacts of a project contribute to climate change (i.e., greenhouse gas (GHG) emissions), the impacts of climate change on valued components, as well as the project's climate change vulnerability²⁰ and associated adaptation actions. Proponents must describe and assess the requirements in [Table 12](#) on the basis of current scientific knowledge, Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge as well as application of climate change models. Additional details on requirements are provided below.

a) Identifying Project Contributions to Climate Change

In assessing the impacts of the proposed Project, the Impact Statement must include a discussion on the Project's GHG emissions and impacts to Canada's climate change mitigation efforts. Proponents are responsible for ensuring compliance with legislation, requirements, and targets related to climate change that may exist or arise from applicable authorizing agencies, such as

¹⁹ Canada's Changing Climate Report (2019) <https://changingclimate.ca/CCCR2019/>

²⁰ Vulnerability defined as: The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt. IPCC (2018) https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_AnnexI.pdf

Environment and Climate Change Canada. **In conducting technical assessments, Proponents shall follow guidance from applicable authorizing agencies, such as Environment and Climate Change Canada.**

The discussion *shall* include:

- Alignment with Greenhouse Gas (GHG) legislation, policies, and regulations;
- Contributions to federal / territorial (as available) emissions reduction efforts;
- Quantification of net Greenhouse Gas emissions, to account for emissions related to land-use change;
- Positive and negative impacts on carbon sinks;
- An upstream GHG assessment (when required under relevant emissions reductions efforts, targets or climate change legislation, policies, and regulations);
- A net-zero plan (when required under relevant emissions reductions efforts, targets or climate change legislation, policies and regulations); and
- Proposed mitigation measures, including an evaluation of best available technologies and environmental practices as well as offsetting options.

b) Identifying Project Impacts on Valued Components in the Context of Climate Change

The Proponent shall identify changes to the vulnerability of valued components due to climate change as well as the Project's impacts. Proponents are expected to use best available models to predict future scenarios, including global climate models (or Earth System Models) of future climate and models of potential impacts. Proponents should use multiple models where needed and/or possible and look to expert advice to conduct assessments. In cases where in-house models are developed to assist in a specific evaluation, all relevant methodology, assumptions, and data shall be included. Proponents shall follow guidance from applicable authorizing agencies, such as Environment and Climate Change Canada.

The discussion shall include:

- The rationale for the selection of climate models and associated scenarios, including associated uncertainties related to climate change predictions;
- The impacts of climate change on valued components, which may include but not be limited to:
 - Impacts of climate change on extreme meteorological events including flooding, storms, etc. and associated impacts to valued components (e.g., fish impacts due to coastal erosion from wave action);
 - Predicted impacts of climate change on mean and extreme climate parameters relevant to the Project and associated impacts to valued components (e.g., shifting ranges of plant and animal species, permafrost thawing);

- As relevant, impacts from climate change on sensitive ecosystem features and/or valued components within the terrestrial and aquatic ecosystems (e.g., sensitive land features);
- The vulnerability of valued components in the context of climate change, including how the vulnerability of valued components may change as conditions change over the temporal scope of the Project, and how this informs the assessment of the Project's impact on valued components;
- Where interactions occur with the Project, an incorporation of climate change uncertainty into the assessment of the Project's impacts on valued components
- How the modelling and evaluation of effects of climate change to valued; components and proposed mitigations informed the public engagement process
- How the Proponent has considered and reflected Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge in the assessment of climate change effects on valued components, including how engagement informed the assessment and proposed mitigations of impacts to valued components; and
- How climate change has informed the proposed mitigation measures, particularly the resilience and/or adaptation of valued components to the impacts from the Project.

c) Assessing Project Climate Change Resilience

The Impact Statement shall discuss potential future vulnerabilities and risks to the Project due to climate change, including the impacts on the Project due to changes to the likelihood and severity of natural hazards (e.g., severe and/or extreme temperature and precipitation events, high winds and waves, ice ride up and pile-up events, extreme ocean water levels, severe fog or white-out conditions, potential changes to the timing of ice formation, active layer thickness, and frequency of storms), and influences of nature (e.g., flooding, droughts, ice jams, permafrost conditions, landslides, avalanches, erosion, fire, outflow conditions, and seismic events) (see [Section 4.4.5.2](#)). Proponents shall identify these natural hazards and influences, consider how climate change may affect them, and assess how they may impact the Project.

Proponents shall refer to available resources from federal and territorial governments, Designated Inuit Organizations, and technical knowledge to inform the understanding of the potential risks and vulnerabilities from climate change on the Project.

Proponents shall follow guidance from applicable authorizing agencies, such as Environment and Climate Change Canada, on conducting a climate change resilience assessment. Proponents shall apply climate change models, where these models span the range of possible future climate scenarios, rather than designing and applying a single “best guess” scenario (CCDS, 2018).

The discussion shall include:

- The rationale for the selection of natural hazards and influences of nature for the assessment of project resilience, including how climate parameters and associated trends have informed the selection and assessment;
- The rationale for the selection and assessment of climate models and associated scenarios;
- Assessment of the degree of uncertainty or confidence associated with climate scenarios applied;
- How climate change could influence impacts that have a reasonable probability of occurrence and potential adverse effects if not managed, including how these may change over the temporal scope of the Project up to and including the closure phase. This includes impacts from extreme meteorological events on the proposed Project and related considerations for Project design and planning, which may include but not be limited to:
 - Extreme temperature and precipitation events;
 - High winds and waves;
 - Ice-ride up and pile-up events;
 - Extreme ocean water levels (i.e., high and low);
 - Severe fog or white-out conditions; or
 - Potential changes to the timing of ice formation, active layer thickness, and frequency of storms.
- As relevant, impacts on the proposed Project, and related considerations for Project design and planning, from changes to ecosystem features arising due to climate change (e.g., availability and use of water, permafrost thawing);
- A statement on the climate change resilience of the Project, including impacts to operations, proposed commitments and/or mitigation measures, and closure; and
- Evidence that Inuit perspectives and observations on climate change, Inuit Qaujimajatuqangit, Indigenous Knowledge, Community Knowledge, and best available scientific knowledge has been applied to inform the understanding and assessment of potential future risks due to climate change.

4.4.5.4 Cumulative Impacts Assessment

Table 13: Requirements for Cumulative Impacts Assessment

Identify the Project's predicted cumulative impacts on valued components and ecosystemic and socio-economic systems in combination with reasonably foreseeable projects and activities, including proposed future activities associated with the proposed Project under assessment, within determined spatial and temporal assessment boundaries.

Assess the significance of residual cumulative impacts after the application of proposed mitigation measures, with a focus on the Project's relative contribution to cumulative impacts.

Identify potential follow-up measures that are aligned with applicable regional efforts to adaptively manage cumulative impacts.

A cumulative impact refers to the accumulation or addition of impacts to the environment and society caused by past, existing, proposed, and reasonably foreseeable projects, including activities associated with the proposed project, as defined in Section 80 of the *NuPPAA*. These changes occur over space and time and can be impacted by, or brought about by, impacts that are additive or interactive. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over time.

A cumulative impact assessment seeks to identify adverse cumulative ecosystemic and socio-economic impacts that could result from the impact of the proposed Project combined with those of any other project that has been carried out, is being carried out, or is likely to be carried out. The cumulative impact assessment should enable the Proponent to accurately assess how the interaction of impacts from the various Project components and activities, and those from other past, existing, proposed and reasonably foreseeable projects, might impact selected valued components. The cumulative impact assessment should enable Proponents, potentially impacted communities, the public, and interested parties, to better understand the breadth and scope of cumulative impacts that are predicted to occur in the RSA and how the proposed project interacts with these cumulative impacts.

a) Scoping the Cumulative Impact Assessment

The Proponent shall scope the cumulative impact assessment by describing the baseline conditions for each valued component, which considers the impacts of past, existing, proposed and reasonably foreseeable projects and activities within determined spatial and temporal assessment boundaries.

The discussion shall include:

- Description of relevant considerations for broader, regional cumulative impact considerations for the selection or exclusion of valued components, as informed and confirmed by:
 - Applicable land-use plans and regional / strategic environmental assessments that identify existing ecosystemic and social conditions, and key thresholds and areas of concern (e.g., species at risk);
 - Guidance for identifying valued components (see [Section 4.4.3.1](#)); and,
 - Evidence of engagement with potentially impacted parties the NIRB and reflecting Inuit Qaujimajatuqangit, Indigenous Knowledge, or Community Knowledge to understand ecosystemic and social values (as well as their

interactions). Where relevant, the Proponent shall consult with adjacent jurisdictions outside of the designated area (see [Section 4.4.5.5](#)).

- Justification of the methodology undertaken and criteria used to determine spatial and temporal boundaries for each valued component selected, as informed and confirmed by:
 - Applicable land-use plans and regional / strategic environmental assessments;
 - Guidance for determining spatial and temporal boundaries (see [Section 4.4.3](#)) and updated to be relevant for the cumulative impact assessment; and
 - Evidence of engagement with potentially impacted parties, the NIRB, and reflection of Inuit Qaujimajatuqangit, Indigenous Knowledge, or Community Knowledge to determine spatial and temporal boundaries for each valued component selected.
- Descriptions of baseline conditions, as informed and confirmed by:
 - Applicable land-use plans and regional / strategic environmental assessments;
 - Guidance for determining baseline conditions (see [Section 4.4.4](#)) and updated to be relevant for the cumulative impact assessment;
 - A discussion of past, present, and projected trends over time for each valued component to establish the degree of vulnerability and resilience each valued component has to future change; and
- Evidence of engagement with potentially impacted parties, the NIRB and reflection of Inuit Qaujimajatuqangit, Indigenous Knowledge, or Community Knowledge to understand baseline conditions.

b) Describing Cumulative Impacts and determining Significance

The Proponent shall identify the Project's predicted cumulative impacts on valued components and ecosystemic and socio-economic systems in combination with reasonably foreseeable projects and activities. This includes proposed future activities associated with the proposed Project under assessment, within determined spatial and temporal assessment boundaries. The Proponent shall assess the significance of residual cumulative impacts after the application of proposed mitigation measures, with a focus on the Project's relative contribution to cumulative impacts in the region.

The discussion shall include:

- Statements on the degree of uncertainty or confidence associated with the prediction of reasonably foreseeable projects and activities. The NIRB will accept less detail and more uncertainty from Proponents the further into the future or the less certain the reasonably foreseeable development;
- Documentation of the methodology used to predict cumulative impacts, including multiple realistic scenarios of conceptualized phased developments that considers natural environmental vulnerabilities and risks (see [Sections 4.3.2](#) and [4.3.3](#));

- Documentation of the methodology undertaken and criteria used to evaluate interactions between the Project's valued components with past, existing, proposed, and reasonably foreseeable projects and activities, including proposed future activities associated with the proposed Project under assessment, within the spatial and temporal boundaries (see [Section 4.4.5.1](#));
- Documentation of the methodology undertaken and criteria used to characterize any residual cumulative impacts (see [Section 4.4.5.7](#)), including any exclusions of residual impacts, as well as assumptions and uncertainties made;
- A description of the significance of residual cumulative impacts after the application of proposed mitigation measures based on the characterization of residual cumulative impacts (see [Section 4.4.5.7](#));
- A description of the confidence in the significance of residual cumulative impacts, including evidence of engagement with potentially affected parties and reflection of Inuit Qaujimajatuqangit, Indigenous Knowledge, or Community Knowledge for understanding societal and cultural values to inform residual impacts characterization and significance determination (see [Section 4.4.5.8](#)); and
- A description of the proposed mitigation measures that are technically or economically feasible, including potential regional or collaborative approaches, and their effectiveness to avoid, minimize, restore, or offset potential adverse cumulative biological, ecological, physical, health, social, economic, and cultural impacts.

c) Identifying Follow-Up Measures to Monitor and Manage Cumulative Impacts

The Proponent shall identify potential follow-up measures – and, as appropriate, are aligned with applicable regional efforts – to adaptively manage cumulative impacts and are reasonable for the Proponent to implement and are proportional to the Project's contribution to cumulative impacts.

The discussion shall include:

- Identification of potential monitoring measures, including their alignment with regional efforts to manage cumulative impacts, such as applicable land-use plans and regional / strategic environmental assessments, community-based monitoring programs, and follow-up measures that are actively implemented by other Proponents;
- Discussion of uncertainties associated with cumulative impacts in the identification of monitoring measures. In some cases, adaptive management at a regional and/or collaborative level may be needed to address cumulative impacts; and
- Discussion of how engagement with potentially impacted parties and reflection of Inuit Qaujimajatuqangit, Indigenous Knowledge, or Community Knowledge informed the design and proposed implementation plan for proposed follow-up measures.

4.4.5.5 Transboundary Impacts and Impacts to Indigenous Groups asserting s. 35 Rights

Table 14: Requirements for Assessing Transboundary Impacts and Impacts to Indigenous Groups Asserting s. 35 Rights

The anticipated ecosystemic and socio-economic impacts of the proposed project which may occur outside of the designated area.

The anticipated ecosystemic and socio-economic impacts on Indigenous Groups asserting s. 35 rights.

The Impact Statement shall include an assessment of predicted transboundary impacts of the proposed Project as well as anticipated impacts on Indigenous Groups asserting s. 35 rights. Transboundary impacts, for the purpose of the Standard Impact Statement Guidelines, are impacts linked directly to the activities of a project or related works conducted inside the designated area, which occur across international, territorial/provincial or regional boundaries, or impacts occurring within the designated area from project related works which occur wholly or partly outside of the designated area. Areas within Nunavut but outside of the designated area are considered transboundary. Transboundary considerations include both geographic proximity to transboundary areas as well as shared resources. Triggers for transboundary considerations in a NIRB assessment are:

- Location of associated activities or components of a project referred to the NIRB;
- Proposed project components in an area in the designated area that other Indigenous groups also have rights;
- Potential negative impacts to the well-being of Canadians outside of the designated area;
- Potential negative impacts to the rights of other Indigenous groups, including harvesting rights; and/or
- Potential for negative impacts to resources outside of the designated area (e.g., water, air, and migratory species such as caribou, marine mammals, fish, and birds).

There are areas within and outside of the designated area that Indigenous groups from different jurisdictions have traditionally used and continue to use and have equal access and rights to. If components of a proposed project are located within these areas in the designated area, the NIRB is required to recognize the appropriate Indigenous Groups asserting s. 35 rights. The Proponent must adhere to direction from the Federal government regarding consultation requirements with Indigenous Groups asserting s. 35 rights. Indigenous Groups asserting s. 35 rights refer to Inuit and Indigenous rights holders as recognized under Article 40 of the *Nunavut Agreement*, including Inuit of Northern Quebec, First Nations in Northern Manitoba, First Nations in Northern Saskatchewan, Makivik, Nunavik, Eeyou Marine Region (James Bay and Northern Quebec), Sahtu Settlement Region, Wek'èezhii or Tłıchq Settlement Region, Mackenzie Valley, Overlapping Treaty Areas in the Northwest Territories, Nunatsiavut, and Greenland/Denmark.

Guidance on possible organizations to engage with in neighbouring jurisdictions are available in the Engagement Guidance Document (access at <https://www.nirb.ca/content/guides>).

The Proponent shall give due consideration to the potential for transboundary impacts which may be a result from interactions between the impacts of the proposed project in the designated area and the impacts of projects located outside the designated area. As noted above, the potential for transboundary impacts related to cumulative impacts associated with this proposed project shall also be defined (see [Section 4.4.5.4](#)).

Where feasible, the potential for transboundary impacts should be considered for all valued components identified by the Proponent, with specific consideration given to the potential for transboundary impacts associated with marine transportation on marine mammals, migratory birds and seabirds and their habitat, as well as the large migration range of land mammals such as caribou. This shall include direct, indirect, and induced impacts on the socio-economic environment, including to land and/or aquatic uses, and other harvesting and cultural uses and food security and associated well-being. Any residual impacts which have the potential to occur outside of the designated area shall also be included in the Proponent's evaluation of transboundary impacts.

4.4.5.6 Indicators, Criteria, and Parameters

Table 15: Requirements Related to Identifying Indicators, Criteria, and Parameters for Assessment

Identify and describe all relevant indicators, criteria, and parameters used in the impact assessment.
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Within its impact assessment, the Proponent shall identify the indicators and criteria selected for assessing the potential impacts of the proposed project, including any cumulative and transboundary impacts as well as the significance of impacts, and shall justify their selection. The Proponent shall:

- provide clear and concise links between indicators and relevant valued components and systems;
- describe the role played by engagement with potentially impacted communities, the public, and interested parties, including technical experts and knowledge holders, and how Inuit Qaujimajatuqangit, Traditional Knowledge and Community Knowledge informed or guided this section, including the adoption of observational or sensory indicators; and
- identify all indicators, criteria, parameters, as well as any thresholds of impacts suggested by the public and governments which were adopted and provide justification for any which were not.

Proponents are encouraged to use established and recognized thresholds and justify all thresholds used. The Proponent shall identify how science, Inuit Qaujimajatuqangit, Traditional

Knowledge, and Community Knowledge were used in establishing thresholds. Any key differences in conclusions drawn from knowledge sources and justification for the Proponent’s preference should be further be described.

For the Standard Impact Statement Guidelines, the NIRB uses the following definitions:

Criteria	factors to be considered or what needs to be met when assessing potential impacts (e.g., TSP, PM10, PM2.5, NOx, SO2, volatile organic compounds (VOCs), Ozone (O3), etc., are criteria for measuring air contaminants).
Indicator	signifies change to a valued component (e.g., presence or absence of algae in a lake could indicate anoxic conditions). This can be a measurement or presence and absence.
Metric	a measurement of change to a valued component.
Variables	anything that can change and would bring in variability.
Parameters	a fixed limit (minimum/maximum) used to assess measurements (e.g., <i>TSP, PM10, PM2.5, NOx, SO2, VOC, O3 and GHG emissions are parameters of ambient air quality</i>).
Threshold of impact	the point when a change reaches an established point of significance.
Threshold for mitigation	when measures will be put into place

4.4.5.7 Significance Determination

Table 16: Requirements for Significance Determination

The methods used in developing significance determinations are described.
The terms used to identify levels of significance are defined and described.
How each factor defined in s. 90 of the <i>NuPPAA</i> , as well as other relevant factors identified by the NIRB (e.g., in Standard or Project-specific Impact Statement Guidelines), was considered is described.
How scientific evidence, Inuit Qaujimajatuqangit, Traditional Knowledge, and Community Knowledge was used to inform the methods and conclusions of the significance determination are described.

How well-being and the values of potentially impacted communities are reflected in the determination of significance is described.

How engagement with specific groups informed the significance determination is described.

Any key differences in conclusions drawn from knowledge sources and justification for the Proponent's preference, if any, are described.

Gaps or uncertainty in the significance determination are described.

The assessment of impacts shall include predictions of the significance of impacts on the environment. Significance determinations are applied to predicted residual impacts to valued components and as well as systems. Assessing the significance of potential impacts is the most important aspect of an Impact Statement and is conducted through comparison of the predicted state of the environment with and without the proposed project and assessing the importance of the changes identified.

In developing its significance determinations of potential residual impacts, Proponents are expected to:

- Describe the methods used in developing significance determinations and sources of knowledge used.
- Describe and define the terms used to identify levels of significance.
- Describe how each factor defined in s. 90 of the *NuPPAA*, as well as other relevant factors identified by the NIRB (in Standard or Project-specific Impact Statement Guidelines), was considered.
- Describe how scientific evidence, Inuit Qaujimajatuqangit, Traditional Knowledge, and/or Community Knowledge was used to inform the methods and conclusions of the significance determination.
- Describe how well-being and the values of potentially impacted communities are reflected in the determination of significance.
- Describe how engagement with specific groups informed the significance determination.
- Discuss how different parties' views were considered in the significance determinations.
- Describe any key differences in conclusions drawn from knowledge sources and justification for the Proponent's preference, if any. This will include efforts made, including mitigation, monitoring, and accommodation measures it has adopted to reconcile these differences.
- Identify any gaps or uncertainty in the significance determination.

The dynamic change of the existing ecosystemic and socio-economic environment, as well as expected conditions during the life of the project, must be considered in determining impact

significance, including climate change. Consistent with the ecosystem approach requirements noted above and holistic view of the environment, the Proponent should highlight the interactions within and between valued components to increase understanding of the dynamism of the ecosystems in question and the nature and severity of the predicted impacts as discussed in [Section 4.5](#).

The Proponent should work with potentially impacted communities, the public, and interested parties, including the Regional Inuit Organizations, to define community values and identify criteria to be used in the significance determination. Considerations could include the:

- Proximity of project activities and components to a community
- Areas the community identifies as important
- Intensity and frequency of traditional and cultural uses in the area
- Diversity of traditional and cultural uses and experiences in the area
- Uniqueness of the particular area to the cultural practices
- Role that the location holds in trade and cultural exchange
- Role the place holds in the community's history and culture²¹

Proponents are encouraged to consider work done to inform available land use plans, protected areas, and community-based monitoring etc., as applicable.

The terms used to describe the level of significance must be clearly defined, where possible in quantitative terms. **The Proponent is encouraged to develop levels of significance through engagement and consultation with the public and governments and organizations.** Common levels of significance include but are not limited to: "negligible" "low", "medium", "high", "adverse", "additive", "beneficial", "positive", and "negative".

Per s. 90 of the *NuPPAA*, the following attributes, at a minimum, shall be taken into consideration by the NIRB in determining the significance of each impact:

- (a) the size of the geographic area, including the size of wildlife habitats, likely to be affected by the impacts;
- (b) the ecosystemic sensitivity of that area;
- (c) the historical, cultural and archaeological significance of that area;
- (d) the size of the human and the animal populations likely to be affected by the impacts;
- (e) the nature, magnitude and complexity of the impacts;
- (f) the probability of the impacts occurring;

²¹ List informed by the Assessment of Potential Impacts on the Rights of Indigenous Peoples Guidance. Impact Assessment Agency of Canada. [guidance-assessment-potential-impacts-rights-indigenous-peoples.pdf \(canada.ca\)](https://www24.intelcom.ca/guidance-assessment-potential-impacts-rights-indigenous-peoples.pdf)

- (g) the frequency and duration of the impacts;
- (h) the reversibility or irreversibility of the impacts;
- (i) the cumulative impacts that could result from the impacts of the project combined with those of any other project that has been carried out, is being carried out or is likely to be carried out; and
- (j) any other factor that the Board considers relevant to the assessment of the significance of impacts.

The following are descriptors which may be applicable for specifying significance of identified potential impacts:

- Adverse
- Intensive in concentration or associated with significant levels of change
- Frequent and long-lasting
- Irreversible
- Occur at a broad spatial scale
- Associated with cumulative change
- Diminish the sustainability of ecosystemic and socio-economic systems
- Negatively impact ecological functions of ecosystemic and socio-economic systems
- Negatively impact ecological functions or exceed available assimilative capacity of the ecosystemic and socio-economic environment
- Associated with variables of societal importance and public concern and likely to exceed desired levels of change
- Not in compliance with existing standards or regulations

4.4.5.8 Certainty

Table 17: Requirements for Certainty of Impacts

The Proponent shall identify the degree of uncertainty or confidence associated with each predicted impact and level of significance.

The Proponent shall identify the degree of uncertainty or confidence associated with each predicted impact and level of significance. The level of certainty with predictions could include factors such as:

- limitations in the overall understanding of the ecosystem and limitations in accurately foreseeing future events or conditions;
- climate change;
- the use of technology in the Arctic; and

- available data and information.

All forecasts and discussions related to climate change should include the associated level of certainty. The Proponent shall provide a reasonable description of how uncertainties have been dealt with, through elements such as project design, monitoring, and contingency plans (see [Section 4.6](#)).

4.5 Project Environment and Impact Assessment

Table 18: Requirements for Conducting Impact Assessment

Ecosystemic and Socio-Economic Environment and Impact Assessment
The anticipated ecosystemic and socio-economic impacts of the proposed project, including those arising from the impacts of the environment on the proposed project.
Proposed mitigation measures and monitoring for predicted impacts.
Analysis of the potential residual impacts on the valued components. Includes the significance of residual ecosystemic and socio-economic impacts of the proposed project, including cumulative impacts, taking into account the mitigation measures proposed by the Proponent.
Whether the anticipated ecosystemic and socio-economic impacts of the proposed project, including cumulative impacts, would unduly prejudice the ecosystemic integrity of the designated area.
The significance of residual ecosystemic and socio-economic impacts of the proposed project, considering the precautionary principle, cumulative impacts, and mitigation measures proposed by the Proponent.
Whether, and to what extent, the proposed project would protect and enhance the existing and future well-being of the residents and communities of the designated area, considering the interests of other Canadians.
Human Health and Environmental Risk Assessment
Human Health Risk Assessment conducted as appropriate with summary of proposed mitigation measures to prevent or reduce adverse health risks from the proposed project.
Environmental Risk Assessment conducted with summary of proposed mitigation measures to prevent or reduce adverse environmental risks from the proposed project.
Accident and Malfunctions Assessment
Assessment conducted of accident and malfunction scenarios caused by technological and/or human error or exceptional natural events that have a reasonable probability of occurring.

The Impact Statement shall provide a complete analysis of the predicted impacts from the proposed project on the ecosystemic and socio-economic environment (see [Section 4.4.4](#)), which will serve as a basis for developing various mitigation and monitoring plans to eliminate and/or minimize the potential impacts from the proposed project. The Proponent shall identify efforts it has made when findings differ regarding mitigation, monitoring, and accommodation measures, which ones they have adopted, and efforts to reconcile any differences.

The impact assessment should be informed by:

- Inuit Qaujimajatuqangit
- Indigenous Knowledge
- Community Knowledge
- Scientific evidence
- Legislated requirements
- Community values
- Professional judgement
- Applicable regulations and best practices

Key inputs into the impact assessment are:

- Published literature
- Peer-reviewed scientific reports
- Potentially impacted communities
- Members of the public
- Interested parties, including governments and applicable authorizing agencies
- Adjacent jurisdictions to the designated areas as relevant
- Approved land use plans

4.5.1 Ecosystemic Environment Baseline and Impact Assessment

Ecosystemic impact assessment applied to all project phases of development:

- Site preparation
- Construction
- Operations (including reduced operations)
- Maintenance
- Potential modifications
- Temporary closure (care and maintenance)
- Final closure (decommission and reclamation)
- Post-closure

4.5.1.1 Identification of Valued Components, Systems

The Proponent must conduct an impact assessment on all the valued components and systems identified (please see [Section 4.4.3](#) for additional information). The valued ecosystemic components could include:

- Air Quality
- Climate and Meteorology
- Climate Change
- Noise and Vibration
- Terrestrial Environment
- Geology
- Groundwater
- Surface Water and Sediment
- Freshwater Aquatic Environment
- Vegetation
- Terrestrial Wildlife and Wildlife Habitat
- Birds and Bird Habitat
- Marine Environment
- Marine Wildlife

The Proponent shall identify any valued components requested by parties that it chooses not to adopt and provide a supporting rationale.

4.5.1.2 Baseline Information

The Proponent shall use the baseline information established for the ecosystemic environment (see [Section 4.4.4](#)) to predict the potential impacts of the proposed project through all project phases. Information should be presented in the form of a “Conceptual Site Model” with clear links to any ecological and human health risk assessment conducted ([Section 4.5.3](#)). Baseline summaries should also include discussion of trends and how the ecosystemic environment may change over the life of the proposed project, including due to climate change. In describing the ecosystemic environment, the Proponent shall take an ecosystemic approach that is informed by scientific, Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge perspectives regarding ecosystem health and integrity. Potential considerations in developing a baseline of the ecosystemic environment are available in [Appendix E](#).

4.5.1.3 Impact Assessment

In its impact assessment, the Proponent shall identify and justify the indicators, criteria, and thresholds of impacts, including evidence of involvement of potentially impacted communities, the public, and interested parties in their determination, and further relate them to project monitoring and follow-up measures. For each predicted negative residual impact in this section, associated mitigation measures proposed should be discussed to the extent possible to reduce or avoid the identified impacts, with references to project design ([Section 4.3.1](#)) and environmental management systems ([Section 4.6](#)). The Proponent should also describe predicted timing of when impacts could reasonably be anticipated to manifest, linking to strategies designed to appropriately mitigate and address.

4.5.2 Socio-Economic Environment Baseline and Impact Assessment

Socio-economic impact assessment applied to all project phases of development:

- Site preparation/pre-construction
- Construction
- Operations (including reduced operations)
- Maintenance
- Potential modifications
- Temporary closure (care and maintenance)
- Final closure (decommission and reclamation)
- Post-closure

The Proponent shall undertake a Socio-economic Impact Assessment of potential adverse and beneficial impacts to the socio-economic environment, including social, economic, cultural, well-being, and health valued components. The Socio-economic Impact Assessment shall be undertaken with a level of effort and expertise at least equivalent to that applied to the assessment of the ecosystemic components and values.

Proponents are encouraged to read the NIRB's Socio-Economic Toolkit for additional guidance on conducting a Socio-economic Impact Assessment, available at: <https://www.nirb.ca/content/guides>.

A Socio-economic Impact Assessment is a tool to identify, evaluate, and understand potential impacts of a Proposed project on individuals, families, and communities. Key factors woven throughout the assessment and related to multiple valued components should include:

- Current and potential changes to access to resources and activities (e.g., housing, food security, hunting, harvesting), as experienced by different demographic categories, such as gender, age, ability, income level; and
- How impacts will be experienced differently by people based on demographic categories, such as gender, age, ability, income level.

The Socio-economic Impact Assessment shall consider both **positive** and **negative** impacts to identified valued components. Potentially impacted communities, the public, and interested parties including applicable organizations, Designated Inuit Organizations, and government departments should be directly involved in the impact assessment of the socio-economic environment. The NIRB strongly recommends that Proponents engage with the appropriate Socio-Economic Monitoring Committee when conducting its impact assessment and developing appropriate mitigation and monitoring measures. Review of past monitoring reports will help the Proponent to understand past approaches.

4.5.2.1 Identification of Valued Components, Systems, and Potentially Impacted Communities

The Proponent must conduct an impact assessment on all the valued components and systems identified. Valued Socio-economic Components could include:

- Economic development and opportunities (including public revenues)
- Contracting and business opportunities
- Employment
- Education and training
- Culture, including intergenerational knowledge transfer
- Traditional land and/or aquatic uses (such as hunting, fishing, harvesting, gathering, habitation, and cultural expression and connection on and to lands, waters, ice)
- Non-traditional land and/or aquatic uses
- Heritage resources (archaeology and paleontology)
- Food security and sovereignty
- Human Health
- Individual, family and community well-being and cohesion
- Public safety
- Community infrastructure, public services, and transportation
- Housing

The Proponent shall provide a clear rationale for its selection of potentially impacted communities, the public engagement carried out, and relevant reference studies and reports from which baseline data is collected (see [Section 4.4.1](#)).

To understand the socio-economic environment and potential project-impacts effectively and meaningfully, a holistic discussion and analysis must take place. For example, to fully understand and assess impacts to individual, family, and community well-being, other components and factors need to be considered, such as culture, way of life, food security and sovereignty, and health need to be considered. The Proponent shall further describe the interactions between the socio-economic and ecosystemic environment, including the roles of the land and wage-based economies and the nature of the mixed economy of the North. The Proponent should provide sufficient detail to demonstrate a proper understanding of the structure and functioning of the potentially impacted communities that enables the Proponent to identify the potential of the proposed project to affect these communities, whether positively or negatively, and to ensure that any socio-economic mitigation measures put in place by the Proponent have a reasonable likelihood of attaining their objectives.

4.5.2.2 Baseline Information

The Proponent shall present relevant information on the functioning and stability of the socio-economic environment in both the Local Study Area and Regional Study Area (see [Section 4.4.4](#)) to serve as a baseline against which the potential impacts of the proposed project can be measured, with a corresponding impact assessment covering all project phases. The Proponent shall also describe the socio-economic components and the processes impacting the components as they exist without the proposed project (historical background and current baseline conditions). This will serve as a baseline against which the potential changes and impacts of the

proposed project can be measured and will also justify the Proponent's selection of Valued Socio-economic Components and indicators and criteria.

- Community populations, demographics structure, composition, characteristics, and population trends (including in- and out-migration).
- Observed variations in education levels, dietary habits, religious characteristics and other social aspects in different demographic categories.

Whenever relevant and appropriate, data shall be distinguished by gender, age, or other community relevant factors. Further, a Gender Based Analysis + assessment is expected. Socio-economic indicators and criteria should be used to present baseline information and subsequently measure impacts related to the proposed project. Potential considerations that can be selected to develop the baseline of the socio-economic environment are available in [Appendix E](#).

4.5.2.3 Impact Assessment

The Impact Statement shall clearly identify and justify the indicators and criteria selected and those chosen must be adequate to address all types of foreseeable impacts, including cumulative and residual impacts. In addition, the Proponent should include predictions regarding when potential impacts on each relevant Valued Socio-economic Component and system could reasonably be expected. Finally, the Proponent is expected to clearly identify limitations and knowledge gaps encountered in its efforts to collect the required information.

4.5.2.4 Gender Based Analysis Plus (GBA+) and Culturally Relevant GBA+

At its most basic, Gender Based Analysis Plus (GBA+) is an analytical tool meant to assess the potential or actual impacts of policies, programs, and legislation on various groups of people including women, men, and gender-diverse people. This model is premised on the idea that a person's social location impacts their relationship to power and privilege. The "plus" demands that we include additional identity factors to our analytical framework for understanding the real or potential impacts of various policies, programs, and actions. These identity factors may include sexuality, location, age, disability, size, etc. In addition, GBA+ is based on an understanding that each of these identity factors do not operate in isolation from one another; rather, GBA+ considers the how these factors intersect and operate in a society in a way which produces either advantage or disadvantage.

While GBA+ is a fundamentally important framework for challenging systems which produce inequality, many Inuit thinkers and organizations have identified the need for what is sometimes called Culturally Relevant GBA+. This framing centres the impact of colonialism as a primary source of inequity. Here colonialism is understood as a complex and ongoing system which has disconnected Inuit from their territories, resources, economic systems, governance, family systems, gender/sexual identities, spirituality, etc. Culturally Relevant GBA+, in centring

colonialism as the source of harm, also accounts for the rebuilding and strengthening Inuit cultures as a response to that harm.

A commitment to GBA+ and Culturally Relevant GBA+ brings to light several questions that are treated in the Guidelines, that consider how organizations and groups operate. For organizations and groups to do this work well (as opposed to just ‘checking boxes’), they must build an organizational culture that is capable and prepared to do GBA+ work.

Gender-based violence (GBV), understood as forms of violence that people experience because of their gender, how they express that gender identity, or how it is perceived, is a significant problem in Inuit Nunangat and in southern urban centres that must also be considered.

4.5.3 Human Health and Environmental Risk Assessment

Health encompasses physical, mental, and spiritual components. Proponents should work with communities and applicable local organizations, Designated Inuit Associations, and Health Canada to identify appropriate determinants of health. Proponents shall also engage Health Canada to ensure mandatory health requirements are met and they have the most up-to-date best practices and guidance.

The Proponent shall consider the following when determining the need for and level of detail of a Human Health and Environmental Risk Assessment for a proposed project, including Health Canada’s Guidance Documents for Evaluating Human Health Impacts in Environmental Assessment:

- Spatial and temporal extent of the predicted contamination;
- The types and quantities of contaminants predicted to be released (the more toxic and/or the larger the quantity of the chemical, the greater the potential risk);
- Number of valued components predicted to be impacted (e.g., air, water, soil, country foods);
- Likelihood of human exposure to the impacted valued components (e.g., drinking water sources, recreational use of surface water, reliance on country foods);
- Location and proximity of individuals to the impacted areas;
- Sensitivity of individuals (e.g., underlying health conditions, presence of communities, culturally significant areas, etc.);
- Duration of exposure to constituents of potential concern (i.e., residential area versus seasonal occupancy or occasional site use);
- Communities, designated Inuit organizations, and/or Indigenous groups concerns related to health, country foods, and use of traditional territory;
- Loss of access to harvesting and gathering areas, changes to quality of harvest, or loss of cultural identity; and

- Public concerns related to anticipated impacts to health.

Any decision related to the need for and type of Human Health Risk Assessment (HHRA) shall be described and justified. The results and conclusions reached in the assessment related to human health should be sufficiently detailed and appropriate for the specific project and the type of HHRA undertaken. A HHRA shall be informed by Health Canada Guidance and include consideration of:

- Predicted sources, quantities, and points of release from the proposed project emissions and effluents containing hazardous substances;
- Selection process for hazardous substance constituents of potential concern;
- Identification of pathways to human receptors;
- Identification and characterization of human receptors (workers and the public), including maps to delineate their locations and the distances of communities, residences, temporary/seasonal residences, etc. to project sites and related infrastructure;
- Method used to convert hazardous substance exposure and intake by the various human receptors from the various pathways into an exposure or dose (e.g., conversion factors); and
- Criteria used to determine significance of impact (e.g., exposure relative to lifetime cancer risk limit).

The Environmental Risk Assessment is to include:

- Predicted sources, quantities, and points of release from the proposed project emissions and effluents containing hazardous substances;
- Selection process for constituents of potential concern;
- Identification of pathways to terrestrial and aquatic ecological receptors (Valued Ecosystemic Components);
- Identification and characterization of terrestrial and aquatic ecological receptors;
- Method used to convert hazardous substance exposure and intake by the various ecological receptors from the various pathways into an exposure or dose (e.g., conversion factors); and
- Criteria used to determine significance of impact (e.g., toxicity reference values).

The Proponent shall include a summary of proposed mitigation measures to prevent or reduce adverse health impacts and environmental risks from the proposed project.

4.5.4 Accident and Malfunctions Assessment

The Impact Statement shall include an assessment of accident and malfunction scenarios caused by technological and/or human error or exceptional natural events that have a reasonable

probability of occurring. The Proponent should conduct a hazard identification and risk assessment of potential accidents and malfunctions across all phases of the proposed project, and should include at a minimum the following:

- Methodology for assessing potential accidents and malfunctions;
- Details on potential accidents and malfunctions, including:
 - Spatial and temporal boundary of impacts;
 - Potential magnitude, duration, and likelihood;
 - Description of the source, quantity, mechanism, rate, form and characteristics of contaminants and other materials (physical and chemical) that could potentially be released to the surrounding environment; and
 - Clarification by season (e.g., oil spill on ice versus during open water).
- Description of the potential consequences including the ecosystemic, socio-economic, (specifically health, cultural, and well-being) impacts, as well as any sensitive receptors that are situated adjacent. This should include and consider:
 - the plausible worst-case scenarios for each major incident type and the unmitigated impacts of these scenarios; and
 - any sensitive timing that would coincide (e.g., wildlife migration periods, nesting periods for migratory birds, spawning periods for fish, and the presence of sensitive wildlife or Species at Risk).
- Description of how each potential accident and malfunction would be managed and mitigated, including but not limited to a description of:
 - Any design safeguards;
 - Contingency and emergency response measures;
 - Clean-up or restoration work in the surrounding environment that would be required during, or immediately following the incident; and
 - How these would differ by season/environmental conditions.
- Description of any existing emergency preparedness and response systems and existing arrangements and/or coordination with qualified response organizations (including communities and government capacity);
- Discussion of any training planned or required for response;
- Description of how emergencies would be communicated to regulators and surrounding communities; and
- Discussion of the capacity of key parties, including the Proponents, potentially impacted communities, and government to respond to accidents and malfunctions.

4.6 Environmental Management System

Table 19: Requirements for Environmental Management

Environmental Management System, Environmental Protection Plan, and associated mitigation and monitoring plans to address predicted ecosystemic and socio-economic impacts from the proposed project.

The measures, including those proposed by the Proponent, that should be taken to:

- avoid and mitigate adverse ecosystemic and socio-economic impacts, including contingency plans;
- optimize the benefits of the project, with specific consideration given to expressed community and regional preferences regarding benefits;
- compensate persons whose interests are adversely impacted by the project; and
- restore ecosystemic integrity after the permanent closure of the project.

Preliminary Closure and Reclamation Plan for the proposed project, which outlines how the various project components will be designed for closure and how they will be decommissioned, reclaimed, and closed following project facilities closure.

Preliminary Care and Maintenance Plan developed for the proposed project in conjunction with the Closure and Reclamation Plan, which outlines how the various project components will be addressed in the event of a *temporary closure* or *unplanned closure* of the proposed project.

The Impact Statement shall detail the Proponents Environmental Management System, Environmental Protection Plan, and associated mitigation and monitoring plans to address predicted ecosystemic and socio-economic impacts from the proposed project. An Environmental Management System is the overarching system a Proponent takes to manage impacts to the environment and includes establishing mitigation measures and monitoring and follow-up programs to eliminate, reduce, control, or offset adverse impacts and complies with permits, authorizations, and relevant laws. The Proponent's Environmental Management System shall take an adaptive management approach. Adaptive management is a systematic and ongoing process for continually improving environmental management processes (including mitigation measures and monitoring programs) by adjusting actions to reflect the monitoring data and the effectiveness of measures taken to minimize adverse impacts. For example, a Proponent may find that the proposed mitigation measures for minimizing an adverse impact is not working as expected and develops a new approach to eliminate, reduce, control, or offset the adverse impact.

The **Environmental Management System** should include:

- *Mitigation measures* for eliminating, reducing, controlling, or offsetting adverse impacts.

- An *Environmental Management Plan* that outlines the Proponent’s overarching approach to managing ecosystemic and socio-economic impacts throughout the life of the project.
- An *Environmental Protection Plan* outlining environmental protection measures through all project stages to limit disturbances to the identified valued components.
- Individual *Monitoring and Mitigation Plans* specific to various aspects, components, activities, and phases of the Project to assess the effectiveness of mitigation measures and associated follow-up mechanisms for adaptive management.

It is important that the Proponent engages with potentially impacted communities, the public, and interested parties (specifically appropriate authorizing agencies) in the development of Environmental Management System and outlines how parties will be involved in the implementation and review of these management and monitoring plans and activities should the proposed project proceed. In addition, **all monitoring plans will specifically identify whether and how Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge will be used to inform the monitoring and management plans.**

Examples of ways in which Inuit Qaujimajatuqangit has been integrated into monitoring include the following:

- Hiring and training of Inuit monitors.
- Funding of community-based monitoring programs.
- Regular reporting and input meetings between the Proponent, monitoring groups, and the community to ensure alignments between the parties – and to report and verify that Inuit input and Inuit Qaujimajatuqangit is incorporated.
- Effective and substantive involvement of Inuit Qaujimajatuqangit holders with special expertise (for example Hunters and Trappers Organization members and harvesters when impacts to animals are involved).
- Inuit oversight committees reviewing results of monitoring and recommendations of additional research, monitoring, and adaptive management measures to improve understanding and management of project included incorporated.

4.6.1 Environmental Management Plan

The Impact Statement should include the Proponent’s environmental policy, Environmental Management Plan, operational plans, and associated environmental management system for the proposed project. An Environmental Management Plan outlines the Proponent’s overarching approach to managing ecosystemic and socio-economic impacts throughout the life of the project. The Environmental Management Plan shall be comprised of individual monitoring and mitigation plans, specific to various aspects, components, activities, and phases of the proposed project. At a minimum, the Environmental Management Plan should reference the individual mitigation and monitoring plans and describe the:

- Scope of the Environmental Management Plan;
- Policies and processes for identifying impacts and planning, implementing, monitoring, reviewing, and reporting mitigation and monitoring measures;
- Regulatory setting and plans to comply with all applicable legislation, regulatory requirements, and best practices;
- Flexibility of the proposed plan to respond to changes in the development plan, the regulatory regime, the ecosystemic and socio-economic environment, technology, research results, and on-going understanding of Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge;
- Process for revising policies, processes, and approaches;
- Plans to engage with potentially impacted communities, the public, and interested parties in the development and implementation of its Environmental Management Plan;
- Ongoing evaluation of practices, including review of the Environmental Management Plan; and
- How financial and human resources will be allocated to implement proposed mitigation and monitoring measures, including data collection, analysis, reporting, and adjustment of practices, if any.

The Impact Statement should further discuss how the results from the Environmental Management Plan will be used to support adaptive management throughout all phases of the proposed project and identify indicators, criteria, metrics, and thresholds of for mitigation to trigger management actions in each sub plan.

If information required under these plans is not available for the Proponent's initial Impact Statement submission, the Proponent shall include a scheduled timeline relating to stages of the NIRB's review process or the later licensing/regulatory processes when this information will become available (i.e., Technical Meeting, Final Impact Statement, Final Hearing, and Water Licensing).

Although the information requirements in the following sections are intended to be as comprehensive as possible, the Environmental Management Plan and individual plans should be tailored to the development plans for the proposed project, which will continue to be refined throughout the Review. The NIRB recognizes that flexibility in the arrangement of the information requested in the following sections may be required and expects the Proponent to use its judgement in consolidating or arranging the information in the most effective fashion. Further, the Environmental Management Plan should be flexible to respond to changes in the ecosystemic and socio-economic environment due to climate change and cumulative impacts.

4.6.2 Environmental Protection Plan

The Proponent shall prepare an Environmental Protection Plan in accordance with its Environmental Management Plan prior to commencement of all phases of the proposed project. The Proponent shall discuss how it engaged and will continue to engage potentially impacted communities, the public, and interested parties in the development and implementation of its Environmental Protection Plan. The Plan shall be integrated into procedure documents for all phases of the proposed project that target:

- site management staff,
- occupational health, safety, and environmental compliance staff, and
- government departments and agencies tasked with environmental and regulatory compliance monitoring/surveillance.

If appropriate, a table of contents and an annotated outline for the Environmental Protection Plan should be presented in the Impact Statement and incorporate, but not be limited to:

- major project activities;
- legislative and permit requirements and how they will be met;
- proposed mitigation measures;
- commitments;
- data collection, analysis, reporting, and adjustment of practices, if any
- adaptive management approach;
- audit and review of the Plan; and
- contingency planning in combination with other management plans.

4.6.3 Monitoring and Mitigation Plans

In accordance with the Environmental Management Plan, the Proponent shall provide individual mitigation and monitoring plans specific to various aspects of the proposed project and the ecosystemic and socio-economic environment and to be incorporated into all applicable phases of the proposed project (e.g., Air Quality Monitoring Plan or Cultural and Heritage Resource Protection Plan). In the Impact Statement, the Proponent should demonstrate how the mitigation and monitoring plans will ensure that:

- The project is conducted as proposed and necessary changes are identified quickly;
- The predicted adverse ecosystemic and socio-economic impacts are monitored and promptly mitigated at the earliest possible time and adaptive measures are used to amend mitigation efforts if identified as not effective or strong enough;
- The regulatory requirements applicable to the proposed project will be met; and

- The works, equipment, and facilities connected to the proposed project are operating properly.

It is important to have a follow-up and monitoring program that is designed appropriately to verify the accuracy of the predicted impacts and the effectiveness of mitigation measures as well as mitigation thresholds. This information should be used to determine whether additional actions are necessary to address unanticipated outcomes and identify what next steps will be taken (adaptive management). These plans shall further identify how the effectiveness of these mitigation steps will be monitored and reported on. All plans should identify the position of the person responsible for the implementation of mitigation measures, the system of accountability, and the phase and component of the proposed project to which the mitigation measure applies.

The Proponent shall also provide a risk assessment of economic factors (e.g., the global economy and international markets), possible changes to the technology or engineering design as proposed in the project description (e.g., size and capability of aircraft, terrestrial vehicles, marine vessels, etc.), or other conditions (e.g., ownership transfer, global pandemic) that might also impair the implementation or effectiveness of proposed mitigation measures or management.

For every environmental management plan and mitigation and monitoring plan, the Proponent shall provide evidence of how it has engaged potentially impacted communities, the public, and interested parties (including authorizing agencies) in the development of those plans, and how they will be involved in the implementation and review of each plan and associated activities should the proposed project proceed. In addition, all monitoring plans will specifically identify whether and how Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge was used to inform the monitoring and management plans. Each of the monitoring and mitigation plans shall include a description of:

- Objectives of the monitoring program;
- Applicable laws, regulations, and best practices;
- Valued components to be monitored, and associated indicators, criteria, parameters, metrics, controls and thresholds of impacts and for mitigation to be compliant with;
- How effectiveness of mitigation measures will be evaluated and how mitigation measures or adaptive plans will be adjusted if necessary, including the degree of certainty of the evaluation and compliance with project authorizations;
- Frequency, duration, and geographic extent of monitoring with justification for each, and identification of the personnel or position who will collect, analyse, and interpret data;
- Roles of the Proponent, regulatory authority, potentially impacted community, or others (e.g., independent researchers) in each plan;
- Proposed adaptive management measures and how they will be employed, including durations of actions and thresholds that would indicate the need to alter or vary the

management plan or mitigation measures in the event that observed results (impacts) differ from those predicted;

- Discussion of actions to be taken for observed non-compliance with the law or regulations, performance targets and thresholds, or with the obligations imposed on contractors by the environmental provisions of their contracts;
- Research programs to address novel techniques or optimization of mitigation measures;
- Sources of funding for the plan and reporting;
- Description of measures taken to protect infrastructure from changing conditions due to climate change and potential major climate events (e.g., extreme flows);
- Discussion on how data will be compared temporally for the longevity of the proposed project to monitor trends, impacts of events, potential change in background data (e.g., from climate change) and transitions through project phases including how its monitoring plans relate to and enhance closure goals, objectives, criteria, and the final state;
- Statistical evaluation of the adequacy of the historical baseline and current baseline data (see [Section 4.4.4](#)) to provide a benchmark for testing project impacts, and the need for any additional monitoring prior to construction or operations to establish a firmer project baseline;
- Proposed reporting scheme for monitoring results, including format (e.g., written, community meetings), reporting intervals, and identification of who the Proponent will report to, including applicable authorizing agencies, potentially impacted communities, the public, and interested parties;
- Plans for integration of monitoring results with other aspects of the proposed project, including adjustments for operating procedures and refinement of mitigation measures;
- Procedures/mechanism to assess the effectiveness of monitoring programs, mitigation measures, and adaptive programs for areas disturbed by the proposed project;
- The relationship between monitoring plans and the Environmental Monitoring Program;
- Quality assurance and quality control measures to be applied to monitoring programs;
- How results from monitoring and continued engagement with potentially impacted communities, the public, and interested parties – as well as lessons learned from other projects operating in similar environments – will be used to refine or modify the design and implementation of mitigation measures and management plans;
- How Inuit Qaujimajatuqangit, Indigenous Knowledge, Community Knowledge, scientific research, community-based monitoring programs, and regulator feedback informed the specific monitoring and mitigation plans and proposed actions; and
- Plans for integration of data and information collected through community-based monitoring programs as appropriate and available.

All monitoring plans should be designed so that results from these programs can be coordinated with ongoing regional initiatives or programs with relevant government organizations, local organizations, or regional authorities, including community-based monitoring programs.

4.6.3.1 Ecosystemic Environmental Plans

The Proponent shall present environmental monitoring and management plans developed to eliminate or mitigate potential negative impacts of the proposed project on the ecosystemic environment (see [Section 4.5.1](#) for a discussion on the ecosystemic environment). The plans shall be developed to reflect the complete life span of the proposed project and contain appropriate monitoring and evaluation techniques (e.g., threshold for mitigation) that will allow regulators to intervene in a timely and constructive manner.

4.6.3.2 Socio-Economic Environmental Plans

The focus of the Socio-economic Monitoring Plans and program should be on the Valued Socio-economic Components indicators, which may include topics such as human health, culture, including intergenerational knowledge transfer, individual, family and community wellbeing and cohesion, and food security and sovereignty of the communities potentially impacted by the proposed project. The Proponent shall present plans, policies, and programs to minimize potential negative health, social, economic, and cultural impacts and to optimize potential positive impacts of the proposed project (see [Section 4.5.2](#) for a discussion on the socio-economic impact assessment). This will include steps and plans describing training programs and opportunities for Inuit, and how Inuit Owned Firms will receive preference in contracts relating to the life span of the proposed project. These plans shall contain appropriate monitoring and evaluation techniques (e.g., thresholds for mitigation) that will allow regulators to intervene in a timely and constructive manner.

The Socio-economic Monitoring Plans shall also discuss implementation of Inuit Impact and Benefits Agreements and at a minimum, include human resources, occupational health and safety, community, and public involvement, and if applicable, development of partnership agreements with government departments, designated Inuit organization(s) and provincial, territorial and non-Inuit Indigenous governments for transboundary impacts or impacts to Indigenous Groups asserting s. 35 rights.

In consultation with the applicable Regional Socio-Economic Monitoring Committee, the Proponent should clearly identify the role it will take in regional monitoring initiatives, including how its monitoring plans will align with those of the Regional Socio-Economic Monitoring Committee.

4.6.4 Closure and Reclamation Plan

The Proponent shall develop a preliminary Closure and Reclamation Plan for the proposed project which outlines how the various components set out in [Section 4.3](#) will be designed for closure and how they will be decommissioned, reclaimed, and closed following project facilities closure.

The Closure and Reclamation Plan shall include measures to restore the ecosystemic integrity after permanent closure of the proposed project. While this plan can be preliminary with key issues addressed for the environmental assessment in the NIRB's Review, greater detail is expected in the Nunavut Water Board Type "A" Water Licence Application. At a minimum, the plan submitted within the Impact Statement should include the following:

- Demonstration that issues associated with the effective closure and reclamation of all proposed project components have been considered at the earliest possible stage in the project development process, including influencing the proposed project design;
- Identifying the Proponent's goals for reclamation of lands potentially impacted by the proposed project;
- Consideration of potentially impacted communities' end land use state preferences and criteria;
- Description of reclamation methods, time frames, and schedules, including proposed progressive reclamation, research programs, and notice periods to employees and public;
- Description of temporary closure measures and a discussion of the point a temporary closure should be considered permanent for the purposes of triggering the implementation of the Closure and Reclamation Plan;
- Demonstration that climate change has been considered in the Closure and Reclamation Plan;
- Discussion of research programs to address challenges to reclamation, given the local conditions;
- Considerations for the protection of public health and safety;
- Description of closure and post-closure monitoring of valued ecosystemic components including, but not limited to, wildlife, vegetation, air quality, landform stability, and water quality and quantity;
- Discussion about the long-term monitoring and maintenance that may be required once physical and chemical stability of reclaimed areas has been established;
- Discussion of how ecosystemic and socio-economic environmental impacts will be reduced or eliminated once the proposed project ceases operation;
- Re-establishing conditions that will permit the land to return to a similar pre-project land use or acceptable land use;
- Identification on how the Proponent's plans reflect considerations associated with potential acid rock drainage and/or metal leaching potential of rocks, in association with related waste rock and waste management strategies;
- Evidence that the Proponent engaged meaningfully with potentially impacted communities, the public, and interested parties, including Designated Inuit Organizations and government in the identification of desired end land use objectives for project

impacted areas, and how these were integrated into the Proponent's project closure and reclamation plans and land restoration standards; and

- Any considerations for the restoration of the natural aesthetics of the proposed project.

This Plan is to be considered a “living” document, with the level of detail to be revised to reflect the progress of the proposed project as well as changes in technology and/or standards or legislation. Future revisions should also consider input from engagements with communities and other stakeholders on methods to be used, and potential uses for project infrastructure, etc. which specifically state how these inputs are incorporated.

4.6.4.1 Care and Maintenance Plan

A preliminary Care and Maintenance Plan shall be developed for the proposed project in conjunction with the Closure and Reclamation Plan, which outlines how the various components set out in [Section 4.3](#) will be treated in the event of a *temporary closure* or *unplanned closure* of the proposed project. The Plan can be preliminary with key issues addressed for the impact assessment in the Review and should include a discussion of the items listed previously in [Section 4.6.4](#).

The preliminary Care and Maintenance Plan shall also include information on how the various components set out in will be treated in the event of *reduced operations* of the proposed project such as during a pandemic or a labour strike.

4.7 List of Consultants and Organizations

Table 20: Requirements for Reporting on Contributors to the Impact Statement

List of all the consultants who contributed to the preparation of the Impact Statement, including their professional credentials, role, and contact information.
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The Proponent shall prepare a list of all the consultants who contributed to the preparation of the Impact Statement, including their professional credentials, role, and contact information in an appendix to the Impact Statement. In addition, the Proponent shall prepare a list of the organizations engaged in the development of the Impact Statement, including the time, place, and purpose of the consultation, reference materials provided, and contact information for the organization.

4.8 Conclusion

The Impact Statement shall end with a conclusion presenting a summary analysis of the overall projected ecosystemic, socio-economic, and well-being impacts, anticipated transboundary and cumulative impacts and impacts to Indigenous Peoples asserting s. 35 rights, proposed mitigation measures, residual impacts, and monitoring plans. While highlighting the impacts on the region where the project is being proposed, this conclusion shall clearly present the importance of the Impact Statement findings to the designated area specifically and Canada more generally.

APPENDIX A: DRAFT CONFORMITY TABLE

APPENDIX B: PROPONENT REQUIREMENTS CHECKLIST

Table: Proponent Requirements for Impact Statement Checklist

Completed	Requirement
	Documents provided in PDF, not password protected, in-text searching, able to copy text/images/information. Respects limited broadband in the north.
	Hard copies of the Impact Statement provided as necessary.
	Tables, figures, pictures, three-dimensional modeling, videos, etc. provided.
	Translations provided.
	Completed conformity table.
Main Document	
	Stand-alone main document.
	Executive and Non-Technical Summaries (see Section 4.1.6) and a 1-page fact sheet of the Proposal.
	Project Overview: Introduction and impact assessment context (see Section 4.2.2).
	Project Description: Project components and activities including the scope of project and assessment (see Sections 4.2.3 , 4.3 , and 4.4.3).
	Project Purpose, Need, and Alternatives (see Section 4.3.2).
	Summary of impact assessment for each valued component (see Sections 4.4.4 , 4.4.5 and 4.5) and system identified, including: <ul style="list-style-type: none"> ○ description of the historical background and current baseline conditions ○ predicted changes to the ecosystemic and socio-economic environments ○ predicted impacts to the valued components and systems ○ mitigation and enhancement measures ○ residual impacts and the significance of those impacts ○ cumulative impacts ○ other impacts including: <ul style="list-style-type: none"> ▪ accidents and malfunctions ▪ impacts of the environment on the proposed project (e.g., climate change, meteorological, seismological)
	Public engagement (see Section 4.4.1).
	Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge (see Section 4.4.2).
	Project contribution to sustainability (see Sections 4.1.3 and 4.3).
	Follow-up and monitoring programs proposed (see Section 4.6).

	Separate appendices/volumes that provide detailed studies (including all relevant and supporting data and methodologies and management plans) should be cross-referenced to the main document.
	An index to the Impact Statement that references locations in the text by volume, section, sub-section, and page of all key subjects.
	As appropriate, charts, diagrams, tables, maps, and photographs to clarify and/or support the text.
	Maps presented in a consistent and clearly identified datum and with clearly identified scales to allow for comparison and overlay of mapped features.
	A glossary of technical words, acronyms, and abbreviations in plain language.
	A list of all tables, figures, and photographs.
	A complete list of supporting literature and references.

APPENDIX C: ENGAGEMENT ORGANIZATIONS

Proponents should consider engaging with the following non-exhaustive list of Nunavut-specific potentially impacted parties²²:

Regulatory Bodies <ul style="list-style-type: none"> • Nunavut Planning Commission • Nunavut Impact Review Board • Nunavut Water Board • Nunavut Surface Rights Tribunal • Nunavut Wildlife Management Board 	Communities <ul style="list-style-type: none"> • Hamlet • Chief and Council • Members of Legislative Assembly (MLAs) • Community Beneficiary Committees (CBCs) • Economic Development Officers • Hamlet Senior Administrative Officer • Elders • Women's groups (e.g., Pauktuutit Inuit Women of Canada) • Youth groups (e.g., Nunavut Inuit Youth Council, Ikaarvik) • Wildlife Officers • School Principals and Deans • Social Agencies (e.g., Nunavut Literacy Council) • Health Centres • Housing Associations • Nunavut Chamber of Mines • Royal Canadian Mounted Police (RCMP)
Inuit Associations <ul style="list-style-type: none"> • Designated Inuit Organizations (DIOs) • Inuit Regional Development Corporations • Land Claim Organizations • Hunters and Trappers Organizations (HTOs) 	
Governments <ul style="list-style-type: none"> • Government of Nunavut • Government of Canada 	
General Public <ul style="list-style-type: none"> • Citizens of Nunavut • Citizens of Canada, living outside of Nunavut, concerned about a project 	

²² Proponents are cautioned that each community varies and the individuals and groups that should be consulted in each community must adequately reflect community circumstances. The NIRB recommends that Proponents engage with the applicable Regional Inuit Association, Hunters and Trappers Organizations and Associations and Hamlets for guidance and best practices for engaging potentially impacted communities in Nunavut. Proponents should further engage with the with application Regional Inuit Association on the respectful protocols, expectations, and potential participant groups and individuals for the collection, protection, and use of Inuit Qaujimajatuqangit.

Proponents should consider engaging with the following non-exhaustive list *in neighbouring jurisdictions and those with /transboundary interests and claims, including Indigenous Groups asserting s. 35 Rights in Nunavut*¹:

Inuvialuit Settlement Region ²	<ul style="list-style-type: none"> • Environmental Impact Review Board • Inuvialuit Regional Corporation • Inuvialuit Joint Secretariat (serves Environmental Impact Screening Committee, Environmental Impact Review Board, Fisheries Joint Management Committee, Wildlife Management Advisory Council (Northwest Territories) and Inuvialuit Game Council)
<p>Mackenzie Valley and Neighbouring Jurisdictions/Transboundary Interests or Claims (Sahtu Settlement Region, Wek'èezhii or Tłıchǫ Settlement Region)²</p> <p>Neighbouring Jurisdictions/Transboundary Interests or Claims in the Northwest Territories</p>	<ul style="list-style-type: none"> • Mackenzie Valley Environmental Impact Review Board • Mackenzie Valley Land and Water Board • Sahtu Renewable Resources Board • Lutsel K'e Dene First Nation • Yellowknives Dene First Nation • North Slave Métis Alliance
<p>Indigenous Group with Section 35 Rights in Nunavut</p> <p>Neighbouring Jurisdictions/Transboundary Interests or Claims in Northern Manitoba,</p>	<ul style="list-style-type: none"> • Ghotelnene K'odtineh Dene (Sayisi Dene First Nation and Northlands Denesuline First Nation)
<p>Indigenous Group with Section 35 Rights in Nunavut</p> <p>Neighbouring Jurisdictions/Transboundary Interests or Claims in Northern Saskatchewan</p>	<ul style="list-style-type: none"> • Athabasca Denesų́líné Né Né Land Corporation (Athabasca Denesų́líné First Nations of Fond du Lac, Black Lake, and Hatchet Lake)
<p>Neighbouring Jurisdictions/Transboundary Interests or Claims in Hudson Bay, Hudson Strait (both Nunavut islands and those under the jurisdiction of Manitoba, Ontario or Québec)²</p> <p>Nunavik Marine Region, James Bay and Northern Québec¹</p>	<ul style="list-style-type: none"> • Makivvik Corporation • Nunavik Marine Region Impact Review Board • Nunavik Marine Region Planning Commission • Nunavik Marine Region Wildlife Board
Eeyou Istchee and Eeyou Marine Region	<ul style="list-style-type: none"> • Eeyou Marine Impact Review Board • Eeyou Marine Region Planning Commission • Eeyou Marine Region Wildlife Board

Notes: ¹The NIRB notes that community level organizations may vary significantly within each jurisdiction, and that these parties may be able to provide additional community-specific suggestions as needed.

²: Indicates *Nunavut Agreement* Article 40 lands

APPENDIX D: CHECKLIST TO DEMONSTRATE MEANINGFUL ENGAGEMENT

Question	Yes	If yes, evidence:	No	If no, improvement measures that can be taken:
Did you provide rationale for the selection of communities, individuals, and organizations to engage?				
Did you provide early and ongoing notification of engagement opportunities?				
Did you gather feedback from communities on how they want to be engaged?				
Was the engagement process transparent (e.g., are project information and decisions, including rationale for decisions, available to the public?)				
Did you clearly communicate the process and objectives of public engagement including how feedback received would be validated and reflected in project design?				
Was there an agreed-upon process for the inclusion of Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge, including how it was collected, interpreted, used, and informed the project, Impact Assessment, and/or mitigation and management				

plans?				
Was appropriate, relevant, and accessible information (including translations and interpretation into the preferred language) provided in a timely manner, allowing the public sufficient opportunity and time to assess the information?				
Were the timelines reasonable, recognizing seasonal or other constraints on the availability of the public?				
Was the Engagement Plan adapted to ensure the public engagement objectives were achieved?				
Did the Proponent validate input and concerns received with the community and sufficiently explain the ways they may address concerns?				

APPENDIX E: BASELINE AND IMPACT CONSIDERATIONS

4.9 Baseline and Impact Assessment Considerations Relating to the Ecosystemic Environment

Table 21: Baseline Considerations Ecosystemic Environment

Valued Component	Considerations ²³
Air Quality	<ul style="list-style-type: none">• Background ambient air quality in the Local Study Area (LSA) and Regional Study Area (RSA).• Sources of air contaminants and greenhouse gas emissions.• Seasonal variations or climatic conditions associated with variations on air quality.
Climate and Meteorology	<ul style="list-style-type: none">• Meteorological and climatic conditions in the LSA and RSA and prevalent trends, including for locations of proposed project components and along proposed shipping route(s).• Annual, seasonal, monthly, and daily average and mean values of meteorological parameters; seasonal and yearly fluctuations and variability; and extreme climate events over the same period of time in the LSA and RSA.• Prevalent trends related to Valued Ecosystemic Components (VECs) in the project area and any resulting implications to the Project.
Noise and Vibration	<ul style="list-style-type: none">• Sound and vibration levels in the Project area, including variability, and if applicable, the relationship between these parameters and local weather conditions, seasonal variations, etc.

²³ General considerations for all Valued Ecosystemic Components include:

- Seasonal fluctuations, year-to-year variability and source of variability.
- Consideration of a range of climate conditions expected.
- Discussion of any other pertinent issues identified through public consultation.
- Discussion of any other pertinent issues identified through Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge shared and gathered.

	<ul style="list-style-type: none"> • Potential impacts of noise and vibrations on wildlife behaviours and health in both the terrestrial and marine environments. • If applicable, review of available studies/research on the potential impacts of noise and vibrations from blasting in or near freshwater and marine environments.
Terrestrial Environment	<ul style="list-style-type: none"> • Terrestrial ecology. • Landforms (including unique or valuable ones such as eskers, fragile landscapes, wetlands), topographic features, and soils. • Permafrost <ul style="list-style-type: none"> ○ Distribution in the LSA (including areas of discontinuous permafrost, high ice-content soils, ice lenses, thaw-sensitive slopes, and talik zones). ○ Temperatures at areas planned for Project facilities and infrastructure (including discussion of sensitivity to climate change, and implications for stability and safety of infrastructures). ○ Relationship between permafrost processes and active layer, surface waterbodies and topography, including a description of permafrost and talik configuration in the development area and adjacent water bodies and implications for groundwater flow pathways. • Potential of geohazards that may affect the project or the occurrence of which may potentially be impacted by the Project (e.g., slumping, landslides, potential slippage, seismic hazards). • Suitability of topsoil and overburden for use in re-vegetation of surface-disturbed areas. • Existing or proposed protected areas, special management areas, and conservation areas in the RSA. • Sites of paleontological or palaeobotanical significance within the LSA.

Geology	<ul style="list-style-type: none"> • Bedrock lithology, morphology, surface geology, landform, and soils (including sediments and the thermal and ground ice conditions) at proposed borrow and quarry sites, project facilities such as tailing and waste rock management facilities, roads, and other areas where earthworks are proposed. • Structural geology, such as fractures and faults, at major project infrastructure areas and where earthworks are proposed (e.g., mine site(s), port site, tank farm(s) and storage facilities, etc.). • Typical regional and local cross-sections of the general geology should be provided showing the geological units and their elevation, groundwater table, and linear geological structures. • Description of the geotechnical properties of bedrock and soil units, including ice content and thermal conditions of permafrost soils and rocks, as relating to slope stability, underground stability, and bearing capacity of facility foundations. • Acquisition of the in-situ stress either with in-situ investigation or from other sources with reasonable confidence.
Groundwater	<ul style="list-style-type: none"> • Hydrogeology of the RSA and LSA: <ul style="list-style-type: none"> ○ Hydrogeological model that discusses the hydrostratigraphy and groundwater flow systems. ○ Groundwater level, regimes, distribution characteristics, and flow paths. ○ Groundwater budget. ○ Characterization and discussion of faults and fractures. ○ Hydraulic conductivity data for hydrogeologic units. • Description of permafrost and talik distribution, (considering permeability, hydraulic conductivity of the underlying materials, and interaction with groundwater and surface water). • Hydrogeological and groundwater maps and cross sections (i.e., hydrostratigraphic units, permafrost, lake

	<p>taliks, potentiometric contours, groundwater and groundwater flows.).</p> <ul style="list-style-type: none"> Hydrogeochemistry and groundwater quality (i.e., pH, redox potential, total dissolved solids, isotopic composition, dissolved oxygen, dissolved metals anions and cations). Discussion of interactions between groundwater and surface water.
Surface Water and Sediment	<ul style="list-style-type: none"> Description, location, and physical characteristics of surface water in the RSA and LSA. Hydrology of the RSA and LSA: <ul style="list-style-type: none"> Hydrological characteristics of streams, rivers, lakes, surface water flows and subsurface flows. Hydrological regimes, water drainage, watershed boundaries, and water balance. Ice formation and melt patterns including ice cover, ice conditions, and typical thicknesses. Timing of freeze/thaw cycles and flood zones. Surface water quality in the RSA and LSA: <ul style="list-style-type: none"> Chemical characteristics. Baseline levels of contaminants, detection limits, and comparison to relevant water standards/guidelines. Identification of naturally elevated contaminants. Description of lake bathymetry and limnology in the LSA. Discussion of water body use in the RSA (i.e. water used for drinking, harvesting, recreational activities, or cultural purposes). Physical and chemical characteristics of sediment in the LSA. Sedimentation rates, dispersion patterns and modelling in waterbodies of the LSA.
Freshwater Aquatic Environment	<ul style="list-style-type: none"> Description of freshwater biota and their associated habitats and habitat distribution in the RSA, with an emphasis on ecologically and/or culturally important

	<p>species, and fish with designations (Species at Risk listed on Schedule 1 of the federal <i>Species at Risk Act</i> (SARA), species with designations by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC)) and fish habitat and representative fish as defined in the <i>Fisheries Act</i>.</p> <ul style="list-style-type: none"> • Description of freshwater aquatic environments in the LSA, including: <ul style="list-style-type: none"> ○ Freshwater habitat including littoral zones, aquatic and riparian vegetation, lake bottom characteristics, and key habitat areas (i.e. fish overwintering areas, spawning, migration corridors etc.). ○ Trophic state. ○ Biological composition (i.e. periphyton, phytoplankton, zooplankton, benthic invertebrates, fish, etc.). ○ Interactions and relative significance of each trophic level. ○ Population and distribution of fish species. ○ Description of fish indicator species and their individual and population health, and contaminant loadings. • Characterization of habitat requirements for each fish species.
Vegetation	<ul style="list-style-type: none"> • Description of the vegetation/plant types in the LSA, including estimated percentage cover for principal species, with a discussion on their specific ecology and /or their importance to wildlife and humans. • An overview of vegetation species, populations, distributions and ecologies in the RSA, with emphasis on identified vegetation VECs and species with special designations (Species at Risk listed on Schedule 1 of the federal SARA and species with designations by the COSEWIC). <ul style="list-style-type: none"> ○ These descriptions should include reference to species having significant ecological functions, and/or importance for Inuit life and culture including Traditional Knowledge collected related to plants and plant use in the RSA.

	<ul style="list-style-type: none"> • Discussion of the health status of plant species or communities in the LSA, including baseline information on contaminant levels (including metals) in representative species consumed by wildlife and/or humans, either directly (humans eating plants) or indirectly (humans consuming wildlife), and other vegetation that reflects sensitivity to contaminants or environmental pathways of exposure and biomagnification.
Terrestrial Wildlife and Wildlife Habitat	<ul style="list-style-type: none"> • Description of wildlife populations, with emphasis on identified wildlife VECs and species with special designations (Species at Risk listed on Schedule 1 of the federal SARA and species with designations by the COSEWIC), including: <ul style="list-style-type: none"> ○ Health (i.e., contaminant loading in representative species important to Inuit as a food source). ○ Distributions, migration routes and crossings in the RSA and associated timing when potential impacts from the Project as well as areas important for Inuit harvesting. ○ Reference to species having significant ecological functions, and/or of importance for Inuit life and culture. • Description of biodiversity within the RSA, and associated ecology among terrestrial wildlife species; • Identification of key wildlife habitats in the LSA and RSA as applicable, including: National Parks, Critical Wildlife Areas, Territorial Parks and other areas with legislated protection; eskers; caribou calving and nursing areas; denning sites; staging areas; and special locations as salt licks, insect relief habitats, and areas used by females and their young. • Identification of habitats of any rare or sensitive species, such as Species at Risk, or those with similar designations or federal and territorial status.
Birds and Bird Habitat	<ul style="list-style-type: none"> • An overview of bird species, populations, distributions, and ecologies in the RSA, with emphasis on identified bird VECs and species with special designations (Species at Risk listed on Schedule 1 of the federal SARA and

	<p>species with designations by the COSEWIC). This description should include reference to species having significant ecological functions, and/or importance for Inuit life and culture.</p> <ul style="list-style-type: none"> • Description of current bird habitat, including the use of Migratory Bird Sanctuaries, Key Migratory Bird Sites, Territorial Parks and other important habitats (e.g., breeding, nesting sites, staging areas) in the RSA and along the proposed shipping routes. • Description of the relative seasonal/annual abundances, distributions and trends in range or habitat use, movements and population status of bird VECs, including but not limited to population abundance, reproductive success, mortality rates, density, diversity, etc. • Description of migratory bird patterns and routes potentially of Valued Components impacted by the Project (including those along shipping routes and those that could potentially be impacted by marine spills from current and/or wind patterns), with a discussion of corresponding sensitive periods.
Marine Environment	<ul style="list-style-type: none"> • Marine ecology, including: <ul style="list-style-type: none"> ○ Marine water and sediment quality. ○ Marine biota including fish and Species at Risk. ○ Marine habitat. • Description of marine physical processes and currents including the coastal environment, biological diversity and composition, and associated interactions in the LSA and RSA, including proposed shipping route(s). • Information along proposed shipping routes, including: <ul style="list-style-type: none"> ○ Seasonal ice cover including timing of ice freeze-up and break-up. ○ Available bathymetric information. ○ Sensitive habitat areas for marine fish, anadromous fish, and marine biota including but not limited to, coral and sponge habitat, benthic areas, bottom temperature and substrate type. • Presentation of Inuit Qaujimajatuqangit knowledge collected related to coastal areas and ice conditions.

Marine Wildlife	<ul style="list-style-type: none"> • Description of marine wildlife populations, distributions, and ecologies in the RSA, with emphasis on identified marine wildlife VECs and species with special designations (Species at Risk listed on Schedule 1 of the federal SARA and species with designations by the COSEWIC). This description should include reference to species having significant ecological functions, and/or of importance for Inuit life and culture. • Characterization of marine wildlife habitat in the LSA, including habitat used by VECs for feeding, calving, nursing, over-wintering, and other critical activities. • Identification of marine wildlife species, historical and current habitats, distribution, seasonal migration patterns, critical areas (i.e., feeding, calving, over wintering, etc.), and potential interactions with shipping activities.
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Table 22: Impact Assessment Considerations Ecosystemic Environment

Valued Component	Considerations
Air Quality	<ul style="list-style-type: none"> • Discussion of the standards, guidelines and regulations that the Proponent will incorporate to minimize and mitigate impacts to air quality. • Predictions of principle pollution emission sources from the Project at various stages, including: criteria air contaminants, other relevant air contaminants, and green house gas emissions. • Assessment of dispersion of Project emissions within the Local Study Area (LSA) and Region Study Area (RSA), using appropriate modelling, and discussion of related impacts and mitigation strategies and control measures. Total predicted air contaminant concentrations (including baseline and modelled concentrations) should be compared to relevant air quality standards. • Discussion of Project components and activities which may contribute to the potential for acidic input, and an evaluation of associated impacts. • Assessment of impacts on air quality and human health from Project emissions during various project stages

	<p>including airborne dust, criteria air contaminants, and any other relevant air contaminants etc.</p> <ul style="list-style-type: none"> • Assessment of the Project's greenhouse gas contributions.
Climate and Meteorology	<ul style="list-style-type: none"> • Analysis of the Project's GHG emissions against relevant emissions reduction efforts, targets, or climate change legislation, regulation, or policies. • Positive and negative impacts on carbon sinks. • When required, an upstream GHG assessment. • Rationale for the selection of climate models and associated scenarios, including associated uncertainties related to climate change predictions. • The impacts of climate change on valued components, which may include but not be limited to: <ul style="list-style-type: none"> ○ Impacts of climate change on extreme meteorological events including flooding, storms, etc. and associated impacts to valued components (e.g., fish impacts due to coastal erosion from wave action); ○ Predicted impacts of climate change on mean and extreme climate parameters relevant to the Project and associated impacts to valued components (e.g., shifting ranges of plant and animal species, permafrost thawing); and ○ As relevant, impacts from climate change on sensitive ecosystem features and/or valued components within the terrestrial and aquatic ecosystems (e.g., sensitive land features). • The vulnerability of valued components in the context of climate change, including how the vulnerability of valued components may change as conditions change over the temporal scope of the Project, and how this informs the assessment of the Project's impact on valued components. • Where interactions occur with the Project, an incorporation of climate change uncertainty into the assessment of the Project's impacts on valued components.

	<ul style="list-style-type: none"> • How the modelling and evaluation of effects of climate change to valued; components and proposed mitigations informed the public engagement process. • How the Proponent has considered and reflected Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge in the assessment of climate change effects on valued components, including how engagement informed the assessment and proposed mitigations of impacts to valued components. • How climate change has informed the proposed mitigation measures, particularly the resilience and/or adaptation of valued components to the impacts from the Project.
Noise and Vibration	<ul style="list-style-type: none"> • Description of anticipated noise and vibration levels from all relevant Project equipment and activities. Potential increase to atmospheric sound levels should be noted. • Discussion of the standards, guidelines, thresholds, and regulations that the Proponent will comply with to minimize and mitigate impacts associated with noise and vibrations. • Potential changes in marine noise levels from project activities, including shipping activities. • Potential impacts of noise and vibration on the following: <ul style="list-style-type: none"> ○ Humans and human activity in close proximity to noise generating sources. ○ Terrestrial wildlife, with a focus on caribou and migratory birds and Species at Risk. ○ Marine mammals. ○ Fish in fresh water and marine environments. ○ Benthic invertebrates.
Terrestrial Environment	<ul style="list-style-type: none"> • General impact on topography in the LSA as a result of Project development including any borrow resource extraction, with a focus on sensitive landforms and those serving as important vegetation and wildlife habitat.

	<ul style="list-style-type: none"> • Potential impacts on the abundance and distribution of unique or valuable landforms (e.g., wetlands, eskers and fragile landscapes) from the Project. • Potential for soil erosion, including stream bank erosion, resulting from surface disturbances associated with the Project components and activities (e.g., road embankments, water crossings, water management/diversions) during all Project phases. • Potential impacts to soil quality from compaction, the deposition of air emissions and airborne fugitive dust emissions and/or spills from the Project. • Implications to the Project planning and design of design of project components related to terrain conditions, in particular permafrost, sensitive landforms, high ice-content soils, ice lenses, thaw-sensitive slopes, and talik zones. • Potential impacts on the stability of terrain, in particular the thermal stability, in the vicinity of facilities and infrastructure due to the thawing of the ice-rich permafrost soils and other sensitive landforms. Discussion should focus on the potential for impacts arising from surface disturbances due to construction (e.g., overburden stripping, mine pit creation, cuts/fills, excavation, vertical mining of kimberlite pipes) of the facility and infrastructure. • Assessment and prediction of permafrost behaviour (degradation and its rate) beneath the pits during mining and operation of the tailings management facilities including disposing of waste rock. Long-term predictions of the thermal regime around the tailings management facilities should be conducted with the consideration of climate change. • Discussion of the potential for the occurrence, frequency, and distribution of terrain hazards, including snow drifts and snowbanks, resulting from construction activities (e.g., cut/fill, extraction of construction materials).
Geology	<ul style="list-style-type: none"> • Potential geotechnical and geophysical hazards within the Project area and impacts on foundation stability, including potential seasonal subsidence, seismicity and faulting, risks associated with cut/fill slopes, underground excavation, and surface constructed

	<p>facilities. Where appropriate, the assessment should be supplemented by analysis and illustrations such as maps, figures, cross sections and borehole logs.</p> <ul style="list-style-type: none"> • Risk assessment and predictions, including proposed management measures.
Groundwater	<ul style="list-style-type: none"> • Potential changes to permafrost, ground ice, and talik conditions and distribution resulting from Project activities. • Potential changes to groundwater distribution and flow (including inflow into any underground works or undertakings). • Potential impacts on groundwater quality. • Appropriate models (and rationale) for predictions of groundwater quantity, quality, flow, etc. • Contaminants of potential concern from the Project, description of their sources, and predicted increases in groundwater. • Potential impacts on groundwater quality from <ul style="list-style-type: none"> ○ Project-generated dust. ○ Blasting activities. ○ Accidents and malfunctions. ○ Waste management (e.g. landfills, incineration particulate, etc.). ○ Water management (e.g. runoff, seepage etc.). ○ Project-related discharges (e.g. contact water, sewage etc.). • Potential impacts of faults on contaminant transport processes • Potential cumulative impacts to groundwater quality in the watershed. • Discussion of the management measures for minimizing/mitigating impacts to groundwater.
Surface Water and Sediment	<ul style="list-style-type: none"> • Potential impacts from the Project works, undertakings or activities to: <ul style="list-style-type: none"> ○ Existing watersheds from surface water diversions. ○ Natural drainage patterns.

	<ul style="list-style-type: none"> ○ Terrestrial and aquatic wildlife habitat resulting (i.e. from contaminants, modification of flows, etc.). ○ Waterbodies used for harvesting, drinking water, recreation, or other cultural uses (i.e. from contaminants). ○ Water crossings, considering flow capacity to accommodate spring freshet and storm flows (e.g., 1 in 100 year or greater storm events), fluvial processes, and stability. ○ Ice damming and resultant impacts on other resources. ○ fluvial processes and stability. • Assessment of each water crossing and in-stream work against the <i>Canadian Navigable Waters Act</i> (CNWA) and CNWA Minor Works Order to determine if Transport Canada approval is required. • Potential impacts on surface water and/or sediment quality of waterbodies from <ul style="list-style-type: none"> ○ Project-generated dust. ○ Blasting activities. ○ Accidents and malfunctions (e.g. fuel spills, etc.). ○ Waste management (e.g. landfarms, incineration particulate, etc.). ○ Water management (e.g. water withdrawals, stormwater runoff, seepage etc.). ○ Project-related discharges (e.g. contact water, sewage etc.). ○ Suspended sediment (e.g. from construction activities, erosion etc.). ○ Nutrient input. • Identification of and predictions for contaminants of potential concern from the Project. For any water sources identified as being current or future drinking water sources, compare concentrations of contaminants to relevant territorial and/or Health Canada drinking water guidelines. • Appropriate models (with rationale) for predictions of water balance, water quality, discharges (i.e. dispersion and dilution of effluent etc.), and sedimentation etc.
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	<ul style="list-style-type: none"> • Potential cumulative impacts to surface water quality in the watershed. • Discussion of the management measures for minimizing/mitigating impacts to surface water and sediment.
Freshwater Aquatic Environment	<ul style="list-style-type: none"> • Potential impacts from the Project works, undertakings, or activities to: <ul style="list-style-type: none"> ○ Fish health, distributions, and populations. ○ Aquatic and riparian habitat including habitat critical for spawning, rearing, nursery and feeding, seasonal migration, winter refuges and migration corridors. ○ The ability of fish to pass at water crossings (considering periods of extreme low and extreme high stream flows). ○ Contamination of fish and traditional foods (considering bioaccumulation). ○ Introduction and establishment of invasive species. ○ Suspended sediment (e.g. from construction activities, erosion etc.). • Potential direct or indirect impacts to fish, invertebrates, and freshwater habitat from: <ul style="list-style-type: none"> ○ Water management (water withdrawals, discharge, redirection of natural flows, etc.). ○ Nutrient and contaminant inputs (i.e. from dust, blasting, sewage discharge, etc.). ○ Blasting in or near waterbodies (i.e. noise and vibration impacts). ○ In-water works or infilling of lake, wetland, or stream habitats. ○ Accidents and malfunctions (e.g. fuel spills, etc.). • Quantitative assessment of the ecological risks to freshwater biota from the potential Project-related harmful substances and contaminant loadings. • Discussion of the management measures for minimizing/mitigating impacts to the freshwater aquatic environment.

Vegetation	<ul style="list-style-type: none"> • Potential impacts to abundance, diversity, and species composition and coverage of vegetation, or changes to vegetation, due to Project activities and impacts (e.g. airborne fugitive dust fall). • Potential impacts on vegetation from the transfer/introduction of invasive or exotic species into the LSA by Project equipment and activities, including aircraft, vehicles, and marine vessels. • Potential impacts on vegetation quality due to soil stability, soil contamination, and fugitive dust and gaseous air emissions from Project activities. • Discussion of proposed vegetation monitoring, including contaminant levels in species directly consumed by wildlife (e.g., lichen) and/or humans (e.g., Labrador tea, blueberries) and/or indirectly consumed through food consumption (<i>i.e.</i>, caribou). • Discussion of the measures for mitigating disturbances to vegetation, including progressive reclamation plans for disturbed areas, and measures to reduce the potential for establishment of invasive species in the area. • Potential impacts on contamination of wildlife resulting from bioaccumulation, <i>i.e.</i>, food chain uptake through air, water, and soil.
Terrestrial Wildlife and Wildlife Habitat	<ul style="list-style-type: none"> • Potential impacts on terrestrial wildlife in the LSA, including, on population size, abundance, distribution, and behaviour of wildlife VECs from: <ul style="list-style-type: none"> ○ Direct and indirect loss or alteration of habitat, including habitat use, from the presence of and use of infrastructure, the conduct of project activities and associated sensory disturbances, as well as pollutants. ○ Impacts from potential degraded water quality and ground contamination, as well as airborne contaminants resulting from project facilities and associated activities. ○ Impacts from potential ice-breaking associated with shipping activities, and ice management at the port/dock facility. ○ Direct and indirect impacts from climate change.

	<ul style="list-style-type: none"> ○ Ground traffic and air traffic disturbance, particularly low-level flights (i.e., lower than 610 metres above ground) during critical periods (e.g., caribou calving and post-calving and wintering, wolf denning). ○ Noise and vibration on wildlife from drilling, blasting and other activities as results of Project construction and operation. ○ Injury or mortality caused by Project activities, particularly the use of all-weather roads, mine hauling roads and other access roads, as well as intentional killing of wildlife to defend human life or property by mine personnel. <ul style="list-style-type: none"> ● Potential impacts on wildlife from increased hunting pressure resulting from improved access due to Project infrastructure. ● Potential for Project activities to act as an attractant to wildlife species, and associated effect/changes to behaviour and condition. ● Evaluation of the potential for contaminants to be released into the environment as a result of the Project and to be taken up by VEC species. ● Evaluation of the relative health and potential for chemical toxicity for inherently sensitive wildlife species based on an analysis of exposure pathways and demographic parameters.
Birds and Bird Habitat	<ul style="list-style-type: none"> ● Description of the potential loss, alteration, or isolation of habitat (e.g., staging and nesting habitats) from Project development (including from pollutants and noise) and activities and impacts on bird VECs. Special consideration should be given to Species at Risk listed on Schedule 1 of the federal SARA, species with designations by the COSEWIC, species having significant ecological functions or importance for Inuit life and culture. ● Potential disruption or alteration of migration routes and key migratory bird habitat areas and sanctuaries due to Project phases or activities, including shipping. ● Where relevant, the Proponent shall account for alteration of normal behaviour or patterns and provide

	<p>any associated outcomes for overall energy balance for the relevant VECs.</p> <ul style="list-style-type: none"> • Potential impacts on birds and bird habitat use from air contamination, vegetation contamination, ground contaminants or degraded water quality, and noise and vibrations. • Potential impact from pre-determined Flight Impact Zones, and potential for collision with aircraft. • Potential for Project facilities and domestic waste at camp sites to attract wildlife such as polar bear, brown and grizzly bear, wolverine, foxes, ravens, and gulls that may prey upon migratory birds and resulting impacts on the migratory bird populations. • Potential attraction of birds to Project facilities and infrastructure due to attractants, or for roosting and nesting sites. • Potential for bird mortality due to collisions with tall structures, overhead wires or guy wires. • Potential direct and indirect impacts from shipping to marine birds, including: <ul style="list-style-type: none"> ○ Incidental spills, malfunctions, and other accidents. ○ Accidental injuries and mortality open water and potential ice breaking during break-up in the spring and freeze-up in the fall activities, in particular those marine birds which congregate in areas where the shipping routes would pass through. ○ Changes to behaviour, distribution, abundance, migration patterns, species health and reproduction. ○ Evaluation of the potential for contaminants to be released to the environment from marine shipping and taken up by marine bird VECs resulting from the Project. ○ Potential cumulative impacts from escalated marine traffic in the RSA over the Project lifecycle, including. Consideration should be given to the possible significant increase of marine vessel traffic along shipping routes.
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	<ul style="list-style-type: none"> • Potential impacts of contaminant bioaccumulation from food chain uptake through air, water, and soil, including specific impacts to traditional food sources including potential monitoring methods to track the progress of this potential impact.
Marine Environment	<ul style="list-style-type: none"> • Potential impacts on marine water quality and sediment quality from discharges of Project wastewater treatment plants. • Potential impacts on sedimentation patterns and subsequent impacts on subsea permafrost in the nearshore region. • Impacts of Project activities (e.g., effluent discharge, accommodation barge, loading docks, etc.) on biota and habitat including but not limited to: fish and fish habitat, coral and sponge habitat, significant benthic areas, bottom temperature and substrate type. • Potential impact on marine environment and bioaccumulation in marine food chains, in particular on benthic organisms, from antifouling toxins (e.g. tributyltin) leaching from marine vessels. • Potential impacts of climate change and sea level change on Project elements. • Potential impacts and risks from shipping, including: <ul style="list-style-type: none"> ○ Wake impacts on shoreline stability and sensitive fish or marine mammal habitat (i.e., coastal wetlands). ○ Ballast water discharge on water quality, fish and fish habitat, and benthic invertebrates, including cumulative impacts over the life of the Project. ○ Introduction of exotic species, including pathogens. ○ To marine water quality from accidental spills of fuel and chemicals along the shipping routes and from the accidental grounding/stranding of marine vessels along the shipping routes. ○ Sedimentation from propeller wash on water quality, fish and fish habitat and, benthic invertebrates.

<p>Marine Wildlife</p>	<ul style="list-style-type: none"> • Potential loss to or deterioration in the habitat of marine wildlife VECs due to shipping route(s). Special consideration should be given to Species at Risk listed on Schedule 1 of the federal SARA, species with designations by the COSEWIC, species having significant ecological functions, and/or of importance for Inuit life and culture. • Potential impacts to marine wildlife, marine fish, and marine habitat from marine shipping activities including increased noise levels. • Potential spills, malfunctions, and other accidents associated with shipping operations and any resulting impacts to marine wildlife, marine habitat and marine fish. • Risk assessment of the potential introduction of non-native aquatic species due to ballast water discharge, ship wash and hull fouling. • Potential interactions, accidental injuries and mortality of marine wildlife directly or indirectly from proposed shipping (open water and potential ice breaking during break-up in the spring and following freeze-up in the fall) activities, in particular marine wildlife which congregate in areas where the shipping routes would pass through. • Potential direct and indirect impacts on marine wildlife behaviour, distribution, abundance, migration patterns, species health and reproduction from marine shipping activities. • Evaluation of the potential for contaminants to be released to the environment and taken up by VECs resulting from the Project. • Assessment of potential residual and cumulative impacts on marine wildlife VECs resulting from escalated marine traffic in the RSA over the mining lifecycle (and including the potentially extended mine operation period). Consideration should be given to the possible significant increase of marine vessel traffic along shipping routes.
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4.2 Baseline and Impact Assessment Considerations Relating to the Socio-Economic Environment

Table 23: Baseline Considerations Socio-Economic Environment

Valued Component	Considerations ²⁴
Economic development and opportunities (including public revenues)	<ul style="list-style-type: none"> • Structure of traditional and wage economy, including diversification (e.g. types of industries), in the Regional Study Area and variability in potentially impacted communities. • Types and quantities of sectors and businesses (diversity) in the Regional Study Area, including constraints to economic development. • Nunavut's Real Gross Domestic Product, rate of Gross Domestic Product (GDP) growth, Consumer Price Index, import/export and trade balance of goods, personal savings rate, and business investment.
Contracting and business opportunities	<ul style="list-style-type: none"> • Up-to-date statistics and data on contracting and business activity and opportunities in the Project Regional Study Area. • The economy structure and characteristics of the local and regional economies, existing business types, scales of the different sectors of economy, and potential capacities to meet the needs of the Project.
Employment	<ul style="list-style-type: none"> • Labour supply characteristics (including by genders, ages, and other demographic categories). • Employment statistics and opportunities. • Local household incomes, income sources, and compositions of income. • Sector specific breakdown of employment within the NSA, with attention to employment of Inuit and self employment provided through wildlife harvesting as a specific section using available historical published data.

²⁴ General considerations for all Valued Socio-Economic Components include:

- Discussion of any other pertinent issues identified through public consultation; and
- Discussion of any other pertinent issues identified through Inuit Qaujimajatuqangit, Indigenous Knowledge, and Community Knowledge shared and gathered.

	<ul style="list-style-type: none"> • Requirements for employment (e.g. education levels, criminal record, language abilities) and potential for Project needs to be met by local employment and identifying gaps.
Education and training	<ul style="list-style-type: none"> • Existing education system. • Available training programs for youth and adults. • Local education infrastructure, capacity, funding resources, and administration system. • Levels of education, training, and skills in the Regional Study Area and experience of the local labour force in different demographic categories based on available data.
Housing	<ul style="list-style-type: none"> • Local supply and demand of housing, including private, public and rental housing and their costs, other infrastructure, and related capacity within the Regional Study Area as represented in waitlists. • Quality of available housing as seen through number/rates of households living in dwellings considered unsuitable, inadequate, or unaffordable based on most recent Census data. • Crowding
Culture, including intergenerational knowledge transfer	<ul style="list-style-type: none"> • Places of cultural and spiritual importance. • Local customs and beliefs. • Cultural, ethnic, religious, and language characteristics and diversities.
Way of life, traditional land and/or aquatic uses (such as hunting, fishing, harvesting, gathering, habitation, and cultural expression and connection)	<ul style="list-style-type: none"> • Places of importance. • Protected areas. • Local and regional economy characteristics in term of relation to traditional land use activities and wage incomes. • Description of existing outpost camps and other facilities outside of municipal boundaries which facilitate harvesting and recreation activities in the Local Study Area, particularly within the proximity of the Project. • Significance of, availability of, and level of dependence on, traditional foods as major nutritional sources by local residents in the Regional Study Area.

	<ul style="list-style-type: none"> • Traditionally harvested species including the cultural and social activities associated therein, to specifically include hunting, community feasts, and the commissioning of clothing, arts and crafts. • Significance of and availability of natural resources, such as carving stone deposits, used for the commissioning of arts and crafts and cultural materials. • Species important to communities.
Non-traditional land and/or aquatic uses	<ul style="list-style-type: none"> • Visual and aesthetic resources and access. • Local and regional land and/or aquatic use. • Identified and anticipated overlapping zones and/or areas where the land use activities co-exist or interact with Project components and activities. • Tourism activities and recreational use. • Known land use activities and relation to the local economy, self-reliance, food supplies and livelihood.
Heritage resources (archaeology and paleontology)	<ul style="list-style-type: none"> • Known archaeological/paleontological, burial, cultural and historic, sacred, and spiritual sites, trails, and special landscape features. • Regulatory requirements and procedures for recovery and removal of artefacts and/or fossils in areas of proposed development. • Relationship between the cultural sites and social lives of communities.
Food security and sovereignty	<ul style="list-style-type: none"> • Nutritional requirements and preferences of residents with quantitative information on the diet habits of residents, including consideration of details such as the seasonal, gender and age-related consumption of country foods. • Availability and access to foods that would meet nutritional requirements and are culturally preferred. The difference of store-bought foods to what can be hunted, harvested, and fished should be noted. • Details related to store-bought foods as available, including price, quality, selection, and availability. • Details related to country foods, including: cost to access, success rates, participation rates (and time to participate),

	contamination concerns and faith in wild foods, and sharing practices.
Individual, family and community health and well-being²⁵	<ul style="list-style-type: none"> • Availability and access to health services. • Local health statistics and trends of potentially impacted communities, including a comparison with other parts of Nunavut and Canada as appropriate. • Exposure to contaminants (requirements for a Human Health and Environmental Risk Assessment will be determined on a project-by-project basis; see Section 4.6.3 and Health Canada Guidance for additional information). • Education levels, dietary habits, religious characteristics, and other social aspects in different demographic categories. • Individual and family well-being including a discussion on households, family, and community stability. • Household social structures in the Regional Study Area, including: the composition (family/kin-relations co-existing, generations in the household), gender roles, division of household labour based upon existing gender roles, dominant consumption patterns, and how resources are shared/divided within the household as well as how decisions are made in the household. • Community health²⁶ concerns and challenges. • Work-life balance and ability to devote time to traditional activities and time on the land versus work. • Closest shelters for women to access in the region when experiencing gender-based violence. • Mental health and well-being. • Crime rates. • Addiction rates.
Community infrastructure and public	<ul style="list-style-type: none"> • Availability and capacity of public services and related infrastructure:

²⁵ Well-being is defined as: Factors to be assessed at the individual and community levels typically include, but are not necessarily limited to, the following: Inuit Qaujimajatuqangit principles and values; Cultural continuity and language; Social, physical and mental health; Connection to the land (including Inuit food harvesting and Inuit food security/food sovereignty); and Access to training, education and employment opportunities.

²⁶ Includes mental, psychological and physical health

services and Transportation	<ul style="list-style-type: none"> ○ Communications ○ Social ○ Health care ○ Dependency assistance ○ Welfare utilities ○ Temporary accommodation ○ Food services ○ Education ○ Emergency response ○ Law enforcement ○ Community and regional waste management <ul style="list-style-type: none"> ● Existing transportation modes and travel routes/roads, using air, water, and overland (including snow machine trails) methods. ● Access to transportation between Nunavut communities and to outside of Nunavut. ● Social, education, recreational, and physical infrastructure. ● Costs to build infrastructure. ● Community, cultural and recreation programs.
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Table 24: Impact Assessment Considerations Socio-Economic Environment

Valued Component	Considerations
Economic development and opportunities (including public revenues)	<ul style="list-style-type: none"> ● Potential impacts to traditional economy (e.g. related to hunting, fishing, trapping, and sport hunting/guiding etc.) and wage economy at the community and regional levels. ● Impacts of the Project on economic diversity and economic resilience of potentially impacted communities and at the regional level. ● Potential impacts on local and regional economy due to temporary closure and final closure. ● Potential project impacts on Nunavut's Real Gross Domestic Product, rate of GDP growth, Consumer Price

	Index, import/export and trade balance of goods, personal savings rate, and business investment.
Contracting and business opportunities	<ul style="list-style-type: none"> • Direct and indirect project-related procurement needs and predicted capacity of local, regional, and territorial businesses to meet those needs. • Project impacts on other local and regional economic sectors, in particular: <ul style="list-style-type: none"> ○ from competition for labour to other business (and considering existing businesses, institutions, and traditional activities); and ○ Ability for businesses to meet their supply needs. • Assessment of opportunities for local communities to diversify their economic sources and to supply new goods and services to meet the need generated by the Project. • Potential impacts on local businesses and services due to temporary closure and final closure.
Employment	<ul style="list-style-type: none"> • Potential for development of the local labour force, including: <ul style="list-style-type: none"> ○ Direct, indirect, and induced employment with the Project; ○ Providing or supporting local training; and ○ Transferable skills within the community. • Access and potential for differential access to employment by different demographic categories, including age, gender, and ability. • Discussion of culturally-sensitive workforce management practices that will meet both the Project's immediate labour force needs as well as the region's longer-term economic development needs. • Potential changes in income earnings on patterns of savings expenditure and consumption values, especially with changes to public housing rental requirements due to changes of employment status.

	<ul style="list-style-type: none"> • Potential impacts on employment due to temporary and final closure.
Education and training	<ul style="list-style-type: none"> • Impacts to the education system and how the Project would influence training programs (including how the Project might affect attendance, retaining teachers, class sizes, etc.). • Potential demands on the educational infrastructure, capacity, funding resources and administration system. • Requirements for education levels, skills and experiences of labour force from the Project in short, medium term and foreseeable future, taking account the vision of expansion for the Project lifespan, and regional economy development. • Ability of local labour force to meet needs of Project. Potential need for training for local labour force to meet the needs of the Project. This assessment shall include predicted training resources and predicted resources needed to meet the designed training programs, if applicable. • Planned evaluation of training programs, the associated challenges and likelihood of success of trainees to satisfy the Project needs and regional economy development with consideration of cultural and language barrier. • Potential for longer term community capacity building within the potentially impacted communities, region, and Territory, including regarding how mine training plans can enhance the transferability of skills after the mine closure (e.g. management and human resources skills, computer skills, heavy equipment experience, finance skills, etc.). • Possible solutions to fill the gap between requirements of project needs, and education level and qualifications of local labour force.
Housing	<ul style="list-style-type: none"> • Potential impact of project-wages on public housing rent levels and indirect impacts to local employment with the Project.

	<ul style="list-style-type: none"> • Potential impacts to access to public and private housing from in-migration, including competition. • Potential for project to not be able to house workers in the north due to lack of housing availability. • Potential for changes to numbers of individuals living in one home and impacts from reduced crowding. • Potential impacts to quality of housing.
Culture, including intergenerational knowledge transfer	<ul style="list-style-type: none"> • Potential impacts to access places of cultural or spiritual importance. • Potential impacts to the sharing or transference of intergenerational knowledge.
Way of life, traditional and/or aquatic uses (such as hunting, fishing, harvesting, gathering, and cultural expression and connection)	<ul style="list-style-type: none"> • Potential impacts to places of importance. • Potential impacts to Aboriginal fisheries species, including fish of cultural or practical importance to northerners. • Potential impacts to the ongoing productivity of local or regional commercial, recreational or Aboriginal fisheries. • Potential impacts to harvested species, such as reductions in habitat and herd sizes and/or expected changes to migration patterns or human travel routings. The risks to present and future generations of harvesters should also be considered. • Potential impacts to accessibility to areas for hunting, fishing, marine harvesting, traveling, recreational and religious activities, including a consideration of individual components such as all-weather roads, terrestrial activities and infrastructure, and marine shipping. • Potential impacts on sustainable resource use, such as country food availability and accessibility of carving stone deposits, considering the cumulative impacts assessment throughout the entire lifespan of the Project. • Potential impacts to terrestrial and marine wildlife, birds, and fish of cultural or practical importance to northerners.

	<ul style="list-style-type: none"> • Potential impacts to vegetation of cultural or practical value to northerners. • Potential impacts that contamination of traditional food sources, including those trapped, fished, hunted, harvested, or grown for subsistence or medicinal purposes (i.e., berries, etc.), may have on individuals, families, communities, and the ability of Inuit to engage in traditional lifestyles. • Description on how the Proponent will comply with the <i>Official Languages Act</i>. • Potential changes in traditional activities and household function due to wage employment associated with the Project.
Non-traditional land and/or aquatic uses	<ul style="list-style-type: none"> • Impacts to known non-traditional land and resource use including protected areas, visual, and aesthetic resources. • Anticipated interactions between project development and land use activities by residents in the Regional Study Area. • Potential impact on the tourism industry from the Project's development which may impair the wilderness experience of tourism in the Regional Study Area.
Heritage resources (archaeology and paleontology)	<ul style="list-style-type: none"> • Potential impacts to archaeological and paleontological resources (e.g., burial sites, sacred sites), and other cultural sites in the Local Study Area resulting from Project development and infrastructure such as all-weather roads, mine sites, laydown areas, airstrips, etc. and Project activities. • Potential impacts on archaeological and paleontological resources from increased activity in the area associated with the mine including ground transportation and ongoing exploration as well as non-mine related activities. • Potential impacts on cultural well-being, religious and spiritual activities which are related to cultural and historic, sacred, and spiritual sites.

Food security and food sovereignty	<ul style="list-style-type: none"> • Impacts to nutritional levels of store-bought and country foods. • Impacts to availability and access to store-bought and country foods. • Impacts to sharing of country foods throughout the community and Regional Study Area.
Individual, family, and community health and well-being²⁷	<ul style="list-style-type: none"> • Pressures on services in the region. • Health trends in the region and project inputs. • Exposure, risk, and impacts from (requirements for a Human Health and Environmental Risk Assessment will be determined on a project-by-project basis; see Section 4.6.3 and Health Canada Guidelines for additional information). • Standards, guidelines, and regulations that the Project will incorporate during construction and operations, at various Project sites to minimize the impacts and protect workers' health. • Assessment of the health, safety, and security of workers at the job sites and accounting for different Project phases and locations (e.g., explosive manufacturing plant, drilling and blasting operation, and heavy equipment operations). • Public concerns related to anticipated impacts to health. • Potential sources and characteristics of any conventional risks to workers or the public during all phases of the Project. • Potential impacts on human health from air contamination, fugitive dusts resulting from air and ground traffic, potential impacts to potable water quality, and exposure to escalated noise and extreme weather conditions.

²⁷ Well-being is defined as: Factors to be assessed at the individual and community levels typically include, but are not necessarily limited to, the following: Inuit Qaujimajatuqangit principles and values; Cultural continuity and language; Social, physical and mental health; Connection to the land (including Inuit food harvesting and Inuit food security/food sovereignty); and Access to training, education and employment opportunities.

	<ul style="list-style-type: none"> • Potential impacts on human health associated with traditional lifestyles where large amounts of country foods are consumed, considering the bioaccumulation and take-up of contaminants associated with changes to the level of contaminants loadings in country foods (i.e., terrestrial and marine wildlife, fish, birds, and vegetation consumed by humans). • Potential impacts to individual and family health and well-being and community stability (including from inflation, workplace and community cross-cultural tension, conflict, and/or racism, increased access to alcohol and other controlled substances, gambling, substance abuse, family violence, sexually transmitted infections, and other communicable diseases). Potential impacts to, but not limited to:²⁸ <ul style="list-style-type: none"> ○ household social structure from the Project (e.g., one or two family members working at the mine site). ○ lifestyle, including the impacts of a major employment base away from the communities. ○ to community and family stabilities and culture integrity due to potential demographic changes. ○ Inuit income and wealth and ability to meet and exceed basic material needs (food, housing, clothing, etc.) where food security and housing availability, affordability and adequacy are considered. ○ increased or decreased cost of living and affordability from competition for resources and/or influx of wages on Inuit work-life balance from increased opportunity to work at the Project. ○ project-induced demographic changes in population, migration (including in-migration from outside of Nunavut), population re-distribution or movement of Nunavummiut between communities and the impacts of those
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²⁸ Groups within each potentially impacted community more likely to be adversely impacted.

	<p>changes, and further details on potential interactions between residents and non-residents.</p> <ul style="list-style-type: none"> • Potential impacts of workplace discipline and cultural conflicts among Nunavummiut and Southern workers, including those issues which may be related to or exacerbated by language barriers between employees. • How increases in the male population of a community and increases in access to a community (i.e., proponent building a road or using the local airport) can pose safety risks for women and children; and • Accessibility to shelters for women experiencing domestic abuse.
Community infrastructure, public services, and transportation	<ul style="list-style-type: none"> • Demand for community infrastructure and public services from the Project directly and indirectly. • Impacts on services and/or infrastructure (including housing) in public and private sectors, due to the potential use by the Project directly or indirectly, including those caused by Project-induced demographic changes, noting that where the assessment determines an impact, the Proponent should outline proposed mitigation measures. • Potential increased demand on the local and regional health care systems, including the standard medical system, emergency response and emergency medical care, medevac services, and challenges raised by any increased demand. • Building new and updating existing structures including weather shields and outposts beyond the boundary of communities and along hunting/traveling routes, and/or at hunting grounds which may facilitate local hunting activities/traveling in Project areas. • Incremental costs imposed by the needs from the Project directly or in directly on public infrastructure, services, including those caused by Project-induced demographic changes. • A discussion of community access to Project infrastructure upon closure, including proposed road options.

LITERATURE CITED

- ACIA (Arctic Climate Impact Assessment). 2005. *Arctic Climate Impact Assessment*. Cambridge University Press, 1042p.
- 114957 *Canada Ltée (Spraytech, Société d'arrosage) v. Hudson (Town)*, [2001] 2 SCR 241, 2001 SCC 40 (CanLII), <http://canlii.ca/t/51zx> at para. 31; and *Morton v. Canada (Fisheries and Oceans)*, 2015 FC 575 (CanLII), <http://canlii.ca/t/ghifq> at paras 41-43.
- (Doc ID No. 286425). NIRB File No.: 00MN053, Final Hearing Report for the Mary River Project, Baffinland Iron Mines Corporation, September 14, 2012, at p. 13.
- ECCC (Environment and Climate Change Canada). 2020. *Strategic Assessment of Climate Change*. Available at: <https://www.canada.ca/en/services/environment/conservation/assessments/strategic-assessments/climate-change.html>. Accessed September 2023.
- ECCC (Environment and Climate Change Canada). 2021. *Draft Technical Guide Related to the Strategic Assessment of Climate Change*. Available at: <https://www.canada.ca/en/environment-climate-change/corporate/transparency/consultations/draft-technical-guide-strategic-assessment-climate-change.html>. Accessed September 2023.
- ECCC (Environment and Climate Change Canada). 2022. *Draft Technical Guide Related to the Strategic Assessment of Climate Change: Assessing Climate Change Resilience*. Available at: <https://www.canada.ca/en/services/environment/conservation/assessments/strategic-assessments/draft-second-technical-guide-strategic-assessment-climate-change.html>. Accessed September 2023.
- IPCC (Intergovernmental Panel on Climate Change). 2018. *Annex I: Glossary [Matthews, J.B.R. (ed.)]*. In: *Global Warming of 1.5°C*. Available at: [SR15 AnnexI.pdf \(ipcc.ch\)](#). Accessed October 2023.
- IUCN (International Union for Conservation of Nature). 2007. *Guidelines for Applying the Precautionary Principle to Biodiversity Conservation and Natural Resource Management*. IUCN Council. https://www.iucn.org/sites/dev/files/import/downloads/ln250507_ppguidelines.pdf. Accessed June 2020.
- NIRB (Nunavut Impact Review Board). 2020. *Technical Guide Series: Proponent's Guide*. Cambridge Bay, NU: NIRB (see <http://www.nirb.ca/guides>).
- NIRB (Nunavut Impact Review Board). 2018. *NIRB Technical Guide Series: Terminology and Definitions*. Cambridge Bay, NU: NIRB (see <http://www.nirb.ca/guides>).
- Karetak, J., Tester, F., & Tagalik, S. (Eds.). (2017). *Inuit Qaujimajatuqangit: What Inuit Have Always Known To Be True*.

- Lulham, N., Warren, F.J., Walsh, K.A. and Szwarc, J. 2023. *Canada in a Changing Climate: Synthesis Report*. Government of Canada, Ottawa, Ontario. Available at: <https://changingclimate.ca/CCCR2019/>. Accessed October 2023.
- R. Paton, Qikiqtani Inuit Association, as cited by the NIRB in the NIRB's Reconsideration Report and Recommendations for Baffinland's Phase 2 Development Proposal, Baffinland Iron Mines Corporation Project Certificate No. 005, NIRB File No. 08MN053, May 13, 2022, at p. 35, footnote 35).
- Tilleman W. 2005. *The Dictionary of Environmental Law and Science*. 2nd ed. Environmental Law Centre, AB: 437 pp.
- UN (United Nations). 1987. *Report of the World Commission on Environment and Development*. General Assembly Resolution 42/187, 11 December 1987. Retrieved April 12, 2007.
- UN (United Nations). 1972. *Rio declaration on environment and development*. In: Report of the United Nations Conference on the Human Environment, Stockholm, pp. 5-1