Mackenzie Valley
Review Board

GUIDELINE FOR MAJOR PROJECTS TO GO DIRECTLY TO ENVIRONMENTAL ASSESSMENT

Process and information requirements for
a developer to request an environmental assessment

2022
DRAFT

Mackenzie Valley
Environmental Impact Review Board
Phone (867) 766-7050
Fax: (867) 766-7074

www.reviewboard.ca

Published by the Mackenzie Valley Review Board, Yellowknife, NWT

TABLE OF CONTENTS

DEFINITIONS AND ABBREVIATIONS

Term	Definition
alternative means	An alternate project component or activity or way of carrying out the project, other than that being proposed, that is technically and economically feasible, and is environmentally acceptable
cumulative effects	Impacts resulting from the impacts of a proposed development in combination with other past, present or reasonably foreseeable future developments and activities
DAR	Developer's Assessment Report
DAP	Developer's Assessment Proposal
developer	The proponent of the proposed project
EA	Environmental assessment
EIA	Environmental Impact Assessment: The EIA process in the Mackenzie Valley includes preliminary screening, environmental assessment (EA) and environmental impact review (EIR)
EIR	Environmental impact review
EA Initiation Package	The set of documents required to begin an EA of a major project, as described in this guideline
impact on the environment	An impact on the environment under the MVRMA includes any effect on land, water, air, other components of the environment, wildlife harvesting, heritage resources, and any effect on the social or cultural environment (MVRMA s.111(1))

initial application	The application for a regulatory authorization (such as a land use permit or water licence) that triggers a preliminary screening under the MVRMA; The Initial Application includes a project description, which the proponent typically needs to update after the EA before the permitting or licensing process can continue
Mackenzie Valley	The Mackenzie Valley covers most of the NWT. The Mackenzie Valley is defined as the area in the Northwest Territories bounded by: • the Inuvialuit Settlement Region to the north • Nunavut to the east • the Yukon Territory to the west • the 60th parallel of latitude on the south (excluding Wood Buffalo National Park)
major project	A large (in scale or in issues) development that is likely to require environmental assessment
MVEIRB or "review board"	Mackenzie Valley Environmental Impact Review Board
MVLWB	Mackenzie Valley Land and Water Board
MVRMA	*Mackenzie Valley Resource Management Act*
pathway of effect	The chain of events between an initial cause and the resulting direct or indirect effect or impact (the way an impact occurs)
project area	The physical location of the project and nearby surrounding landscape
preliminary screening	An initial examination of a development proposal for potential significant adverse environmental, social, and cultural impacts, and potential public concern (pursuant to section 124)
reasonably foreseeable future developments	Potential future developments that are proposed or rationally predicted based on the weight of evidence

Responsible Minister	Any federal or territorial minister with jurisdiction relating to the proposed development
scope of assessment	What the Review Board will examine during the EA, including the effects of the proposed development on the environment, priority issues for the EA and how they will be examined, and effects of the environment on the project
scope of development	The parts of the proposed development, including the principal development and all other physical works or activities required for the development to proceed, as determined by the Review Board
study area, local and regional	This describes the potential spatial scales for assessing an impact
Terms of Reference	A Review Board document that identifies what information a developer must provide in its Developer's Assessment Report and describes the scope of development and scope of assessment for the EA
Traditional Knowledge	Living Indigenous Knowledge passed across generations, including knowledge, values and beliefs about the environment, its use and management[1]
valued component	A part of the biophysical or human environment that may be affected by a proposed development and that is identified as important, such as having ecological, social, cultural, economic, historical, archaeological, or aesthetic importance

[1]See the Review Board's *Guidelines for Incorporating Traditional Knowledge in Environmental Impact Assessment* for more information

EXECUTIVE SUMMARY

Purpose of this Guideline

The Review Board has written this draft Guideline to:

1. describe an optional, direct pathway to environmental assessment for developers of major projects; and,
2. define the information that developers must provide to the Review Board in an *Environmental Assessment Initiation Package* when requesting an environmental assessment for their proposed development based on the Review Board's authorities under ss. 126(3) of the *Mackenzie Valley Resources Management Act* (the Act).

Legislative framework

The Review Board established this Guideline using its authority under s. 120 of the Act. This Guideline describes the information the Review Board requires to exercise its ss. 126(3) authority to order an environmental assessment of a proposed development on its own motion upon request from a developer of a major project.

Subsections 126(3) and (4) of the Act make it clear that the Review Board can order an environmental assessment of a proposed development notwithstanding the results or commencement of a preliminary screening. In all cases, it is up to the Review Board's discretion to order an environmental assessment or not.

The Environmental Assessment Initiation Package

Developers of a major project who want the Review Board to conduct an environmental assessment of their proposed development without the results of or commencement of a preliminary screening must provide the Review Board sufficient information about their proposed development to enable the Review Board to exercise its discretion. The information about the proposed development and its potential impacts is to be provided in the form of an *Environmental Assessment Initiation Package*. This information falls into the following categories:

1. Detailed project description
2. Environmental baseline data
3. Potential impacts and mitigations
4. *Developer's Assessment Proposal*
5. Engagement and collaborative project planning

Developers must also demonstrate how they have engaged with and responded to concerns and suggestions from potentially affected communities and Indigenous Government Organizations throughout their *Environmental Assessment Initiation Package*.

1. INTRODUCTION

The Mackenzie Valley Environmental Impact Review Board (the Review Board) is responsible for environmental impact assessment (EIA)[2] in the Mackenzie Valley of the Northwest Territories. The Review Board's mandate with respect to EIA processes comes from Part 5 of the *Mackenzie Valley Resources Management Act* (the Act).

In all cases following the pathway outlined in this guideline, the Review Board has the discretion to decide whether or not to order an EA.

Typically, the EIA process in the Mackenzie Valley begins when a developer submits an initial application for a regulatory authorization like a land use permit or water licence that requires a preliminary screening. Regulatory authorities or governments complete preliminary screenings of these projects. If a regulatory authority determines that a proposed development might cause significant adverse impacts or be a cause of public concern, it is referred to the Review Board for environmental assessment (EA). Developers of major projects should assume that their proposed development will be subject to EA due to the potential for significant adverse environmental impacts or public concern that accompanies major projects. The Review Board considers major projects to include large resource development and infrastructure projects such as new mines, highways, hydro facilities, oil and gas production facilities and pipelines.

In the Guideline for Major Projects to go directly to Environmental Assessment (Major Projects Guideline or the Guideline), the Review Board describes an alternate, optional pathway for developers of major projects to request direct referral to EA by the Review Board. This guideline outlines the information that developers of major projects are expected to provide if they want to request that the Review Board conducts an EA for a development, absent a preliminary screening decision. It is within the discretion of the Review Board to order any project which is subject to screening to EA under ss. 126(3) of the Act.

No matter the Review Board's decision, if a s. 126(3) decision is requested, the Review Board will provide its reasons for decision.

Developers who want their projects to come directly to environmental assessment must follow these guidelines to produce a detailed *EA Initiation Package* to facilitate the Review Board's decision to order an EA. Failure to follow these guidelines while preparing a Proposal for Development may result in the Review Board requiring missing information during the EA or choosing not to commence an EA due to a lack of information. In all cases, it is up to the Review Board's discretion to order an EA or not.

1.1 AUTHORITY

Under the Act, the Review Board is responsible for conducting EAs and environmental impact reviews in the Mackenzie Valley. Section 120 of the Act authorizes the Review Board to write guidelines for the EIA process. Sections 126(3) and (4) of the Act gives the Review Board the authority to start an EA of a development notwithstanding the commencement or results of a preliminary screening process.

[2]Environmental impact assessment in the Mackenzie Valley consists of preliminary screening, environmental assessment, and environmental impact review. Most of the Review Board's processes are environmental assessments.

1.2 GOALS AND OBJECTIVES OF THIS GUIDELINE

The Guideline accomplishes two main goals:

1 describing a pathway for developers of major projects to request the commencement of an EA directly from the Review Board; and,

2 outlining what type and level of information developers must submit in an *EA Initiation Package* when requesting an EA using this approach.

In meeting these goals, the Review Board is focused on the following objectives:

- ensuring that the Review Board gets the information it needs to exercise its ss. 126(3) decision making authority
- getting major projects into the EA process earlier and reducing regulatory and administrative burden on developers and preliminary screeners
- promoting early, ongoing, respectful and collaboration between developers and affected communities and Indigenous Government Organizations (IGOs)

Goal 1: Describing a direct pathway to environmental assessment for major projects

Developers of major projects may assume that their proposed development will require the detailed and comprehensive scrutiny of an EA. For this reason, some developers may choose to go straight into an environmental assessment, rather than spending time in a regulatory and preliminary screening process before being referred to an environmental assessment. If the Review Board is satisfied that the developer has adequately fulfilled the requirements of the *EA Initiation Package* described below, it will consider ordering an EA on the project using its ss. 126(3) discretionary authority. Figure 1 illustrates the two potential pathways to EA.

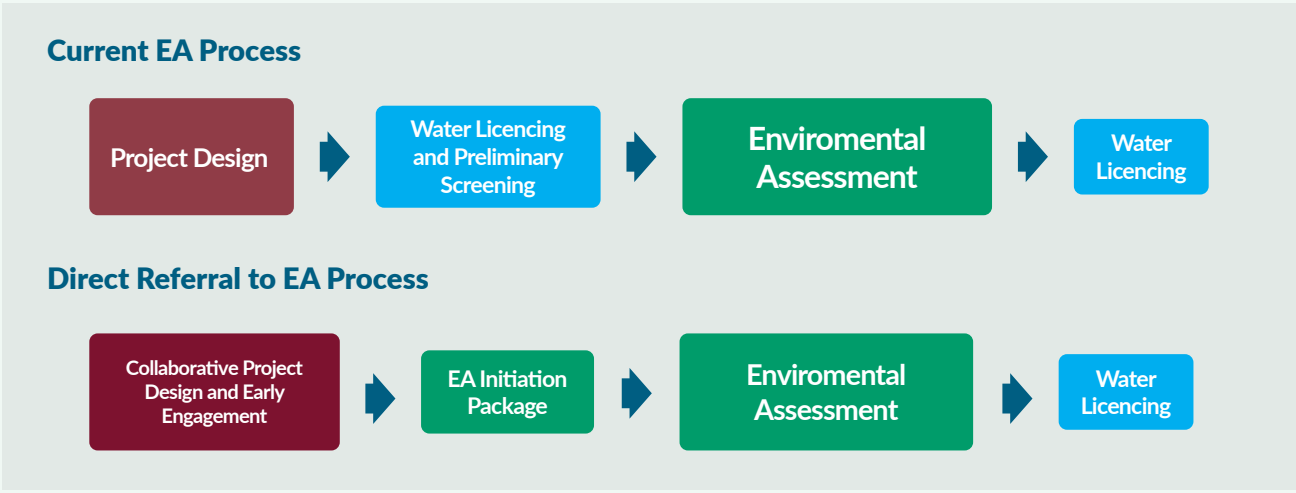


Figure 1: Pathways to Environmental Assessment

Goal 2: Outlining the information required in an *EA Initiation Package*

EAs focus on different issues, or in more detail on specific issues, than water licence or land use permit authorizations.[3] For this reason, relying on evidence submitted for a water licence application or land use permit may not give the Review Board the type or depth of information it needs to begin an EA. The information required in this guideline does not reduce the information requirements for an environmental assessment or for subsequent water licensing and land use permitting, it simply requires more of that information earlier in the EIA process.

Moreover, in the absence of a preliminary screening process, the Review Board requires a basis of evidence upon which to decide if it should start an EA using its authority under ss. 126(3).

The basic information that the Review Board needs to order an EA directly is described in this guideline and must be submitted to the Review Board by developers of major projects in an *EA Initiation Package*. The Review Board will describe additional information requirements in a *Terms of Reference* following the scoping step of the EA and as required throughout the EA.

The Review Board expects developers to conduct early, respectful, and targeted engagement and collaboration with potentially affected communities and Indigenous Government Organizations (IGOs) to gather the information required for the *EA Initiation Package*. Early engagement and collaboration with potentially affected communities means better and more comprehensive information at the start of an EA process.

Better information at the start of the EA supports more meaningful participation by parties by enabling them to make informed and timely decisions about how they will participate in the EA process. Better participation from parties leads to better evidence, creating better conditions for decisions by the Review Board.

This improved information will increase the Review Board's, Indigenous groups', governments' and the public's understanding of the:

- project;
- existing environment;
- potential interactions with the environment;
- outcomes of engagement; and,
- proposed assessment priorities.

Having this information at the onset of an EA process will allow the Review Board to:

- identify and prioritize the most important issues for the EA to focus on during scoping;
- narrow the scope of the EA to include the most important or unresolved issues, which may lead to a more focused *Terms of Reference* and *Developer's Assessment Report (DAR)*[4]; and,
- discuss proposed methods with the developer and parties before the work on the DAR is complete.

[3]This is due in part to the fact that the Review Board has a broader mandate to consider, for example, impacts related to social, cultural and economic well-being, than land and water boards or other regulatory agencies.

[4]An additional benefit of the early information is that there may be fewer information requests and less time spent during the EA trying to understand project details.

Table 1 illustrates the shifts in the timing and nature of information provided by proponents prior to initiating an EA.

Table 1: Shifts in Timing and Nature of Information Provided by Developers.

Type of Information	Current Process (When information is Required)	Direct Referral Pathway Process (When information is Needed)
Project description	✓ Some information in initial application ✓ Thorough information in DAR	✓ *Thorough information earlier in the EA process* ✓ **More focused** *on collaborative project planning between the developer and parties*
Description of existing environment	✓ Some information in initial application ✓ Thorough information in DAR	✓ *Thorough information* **earlier** *in the EA process* ✓ **Earlier engagement with parties** *to facilitate earlier information*
Identification of impacts	✓ Some information in initial application ✓ Terms of Reference at the beginning of scoping ✓ Thorough information in DAR	✓ *More analysis of impact pathways* **earlier** *in the EA process* ✓ **More focused** *on collaboratively identifying impacts*
Developer's Assessment Proposal	✓ Some information in initial application ✓ Terms of Reference at the beginning of scoping ✓ Thorough information in DAR	✓ More analysis of assessment methods **earlier** in the EA process ✓ **More focused** on collaboratively identifying mitigations
Engagement and Collaborative Project Planning	✓ Initial application	✓ Earlier and more collaborative ✓ Emphasis on using engagement results throughout other sections

A direct pathway to EA for major projects means that proposed developments will spend less time in the regulatory process before an EA begins. However, completing an EA via direct referral does not eliminate any necessary regulatory requirements or information after the EA. Figure 2 shows the potential benefits of beginning an EA with more detailed and EA-specific information.

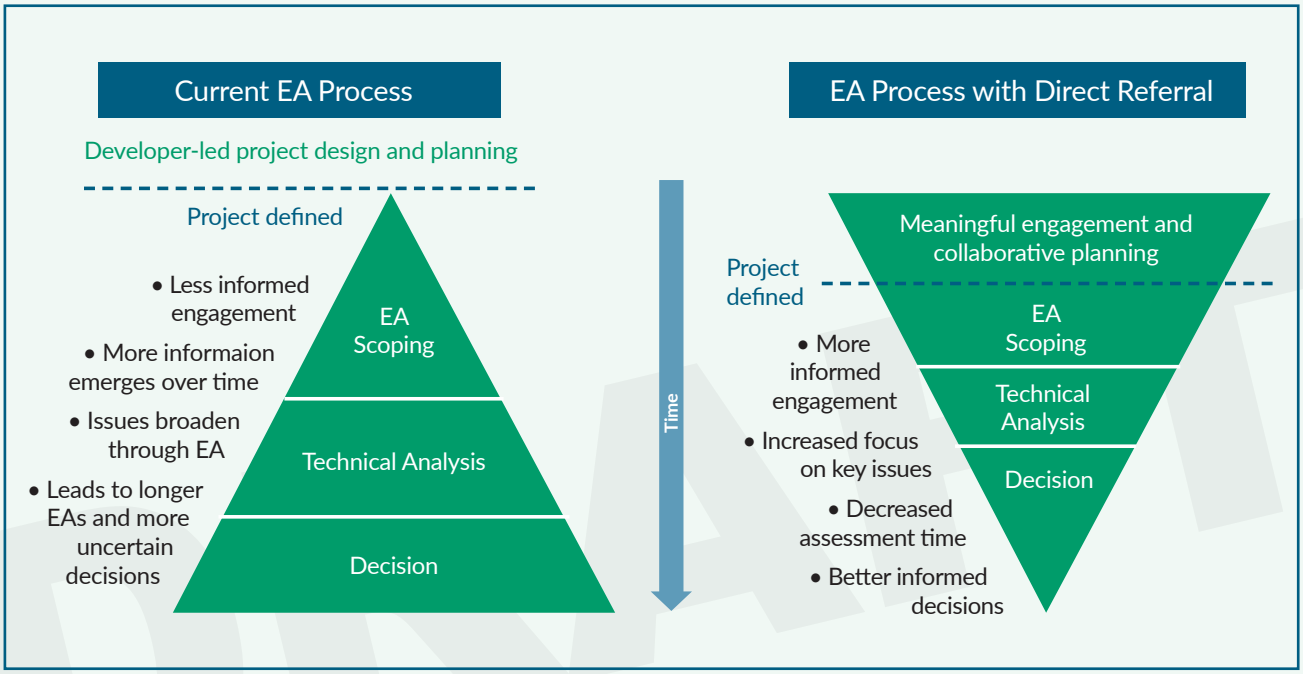
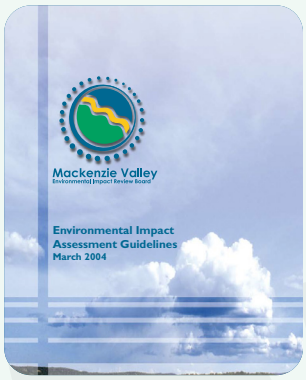


Figure 2: Comparison of existing process to new direct to EA process option

1.3 Situating this guideline within the suite of Review Board guidelines

This Guideline joins three other guidelines produced by the Review Board (see Figure 3).[5] The Review Board's guidelines are complementary. Many of the planning and engagement strategies discussed in the existing guidelines are also relevant for users of this Guideline. All the guidelines reflect the EIA process in the Mackenzie Valley, its legal requirements and the current thinking and good practices for implementing EIA (specifically in the North, and generally in Canada).

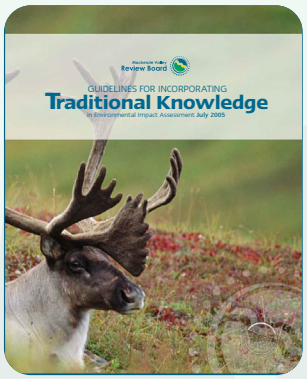


Environmental Impact Assessment Guidelines

The Environmental Impact Assessment Guidelines set out an overall framework that explains how the environmental impact assessment (EIA) process works and what to expect when participating in the EIA of a proposed development.

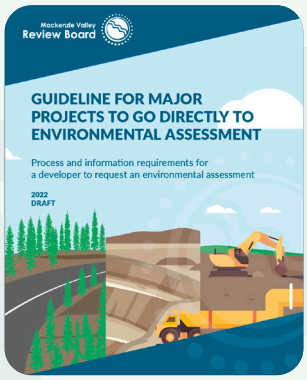
Socio-Economic Impact Assessment Guidelines

The Socio-Economic Impact Assessment Guidelines outline the Review Board's expectations for the socio-economic impact assessment of proposed developments that may have socio-economic and cultural impacts.



Guidelines for Incorporating Traditional Knowledge in EIA

The Guidelines for Incorporating Traditional Knowledge in Environmental Impact Assessment explain what the Review Board expects from developers when working with Traditional Knowledge holders and how Traditional Knowledge holders can share their knowledge directly with the Review Board during the EIA of a proposed development.



Guideline for Major Projects to go directly to Environmental Assessment

The EA Guidelines for Major Projects outline an optional direct pathway to EA for developers, and the information developers must provide to request such a referral.

Figure 3: Review Board Guidelines on the Environmental Assessment Process

[5]Available at www.reviewboard.ca.

1.4 Process of development

To prepare this Guideline, the Review Board used: its own expertise and analysis; guidelines and practices from other EA and resource management organizations;[6] and feedback and comments from parties and developers (see Figure 4).

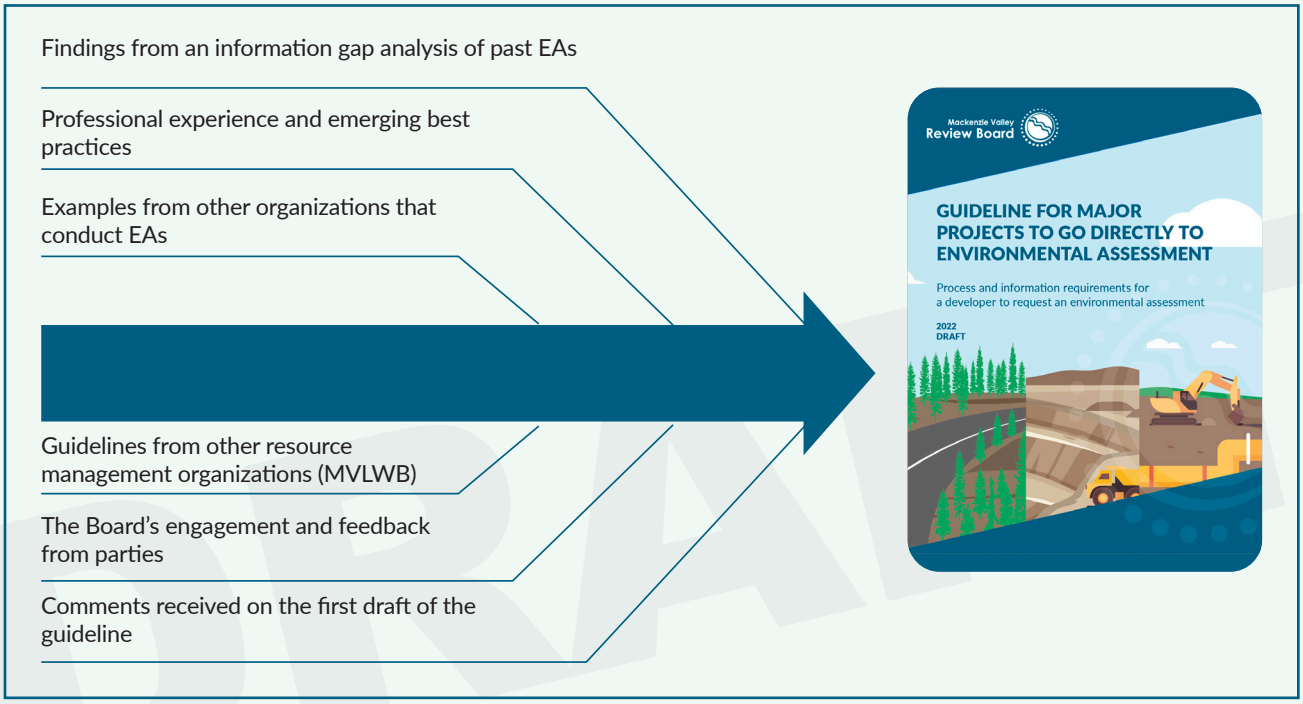


Figure 4: Guidelines inputs

The Review Board will update this Guideline periodically, as all the organizations involved gain experience through its implementation, and as EIA practices evolve. This Guideline may be amended to respond to:

- changes to the law or regulations that affect EIA in the Mackenzie Valley;
- changes to operational processes for EIA in the Mackenzie Valley; or,
- emerging practices in project planning and development, impact assessment methods, etc.

[6]Guidelines from other organizations, including:
- MVLWB *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*;
- MVLWB *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*; and
- MVLWB *Guidelines for Developing a Waste Management Plan.*

2. COLLABORATIVE PROJECT PLANNING AND THE IMPORTANCE OF EARLY ENGAGEMENT

Early engagement between developers and parties has been an important part of EIA in the Mackenzie Valley since the Act came into force. Early engagement and collaborative project planning is a key component of meeting the requirements outlined in this guideline.

Early engagement can facilitate relationship-building, issue identification and resolution, as well as community input into project design in advance of critical project decisions and investments. This reduces the likelihood of conflict in the environmental assessment process and lays the groundwork for ongoing positive interactions throughout the life of a project.

Potential benefits of early engagement and collaboration		
Developer	**Indigenous Governments, First Nations and communities**	**Review Board**
• Better relationships • More opportunity to avoid impacts • Lower costs of project changes	• Involvement during project design • Concerns voiced earlier in process • Better understanding of the project	• Some issues resolved before EA • Better information coming into EA

Moving the needle of engagement towards collaborative project planning yields more benefits. By extending beyond engagement to collaborative project planning, developers can proactively plan their projects in ways that reduce or avoid impacts, address potential concerns, meet regulatory requirements, and avoid delays and non-technical risks later. Collaboration before the EA offers greater flexibility and can result in lower cost project design. Early on, there are usually more options and changes to the project are less expensive than they would be later. This early and collaborative planning can help explore and resolve issues ahead of the EA, supporting a more effective and efficient EA process.

Developers should use the results of early engagement and collaborative planning processes to improve project design and assessment. Developers should be prepared to demonstrate that they have engaged with, considered and responded to the concerns and suggestions of Indigenous Government Organizations and members of the public in communities that are potentially affected by their proposed development. Information about recommended best practices for early engagement and collaborative project planning is included in Appendix A.

Overall, following this pathway and achieving these goals and objectives can have a variety of benefits, as illustrated in Figure 5.

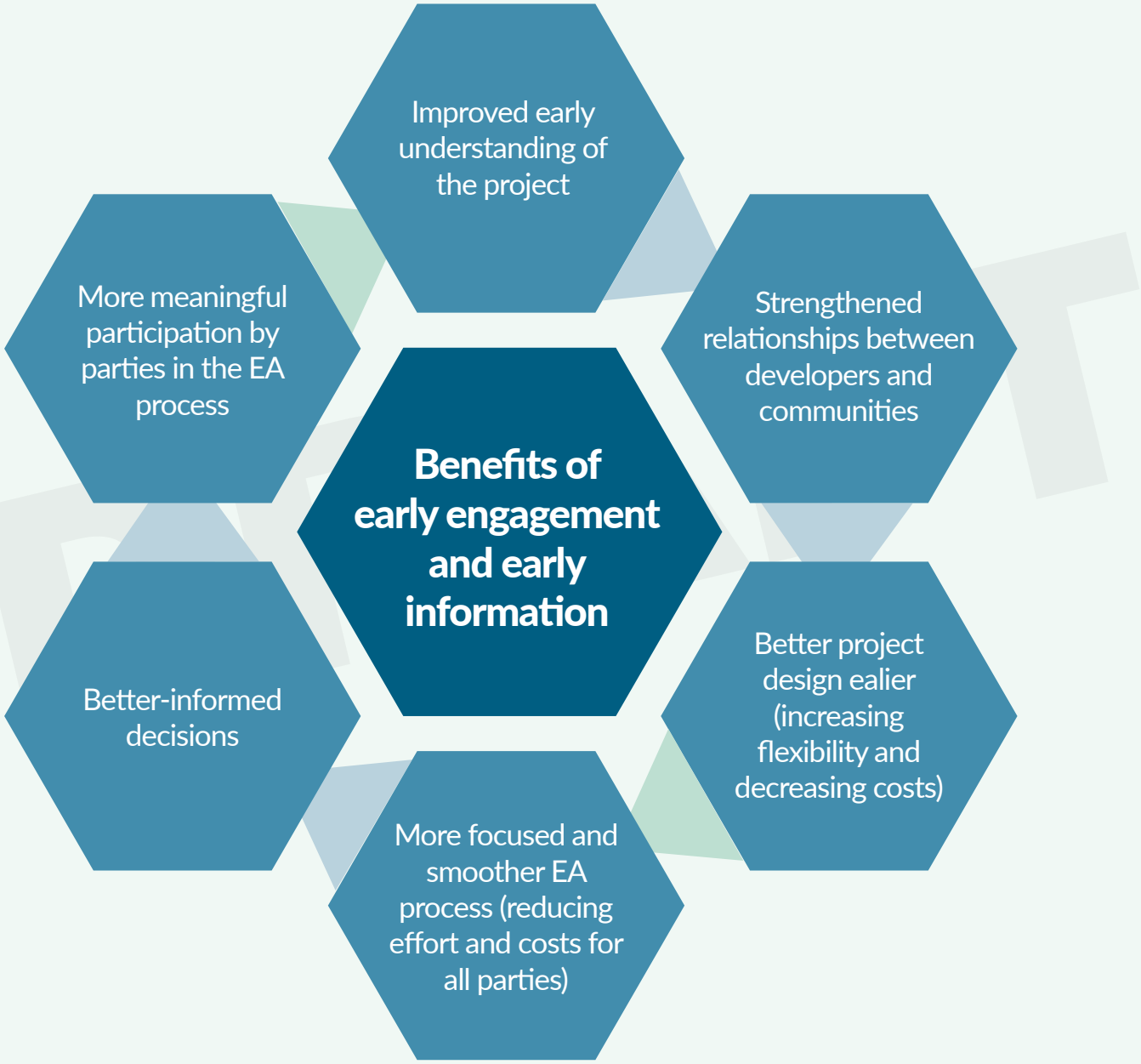


Figure 5: Benefits of early engagement and early information

3. EA INITIATION PACKAGE: INFORMATION REQUIRED TO REQUEST DIRECT REFERRAL

To order an EA using its ss. 126(3) authority, the Review Board requires a complete and satisfactory *EA Initiation Package*. This section outlines the Review Board's requirements for the *EA Initiation Package*.[7] The Review Board expects that the level of detail, breadth and depth of information provided in an *EA Initiation Package* will vary by project. The more information a developer provides in its *EA Initiation package*, the less information the Review Board is likely to require later in the EA. In all cases, the Review Board has the authority to request additional information from the developer at any time in the EA. Appendix B describes how the *EA Initiation Package* relates to early stages of the EIA process.

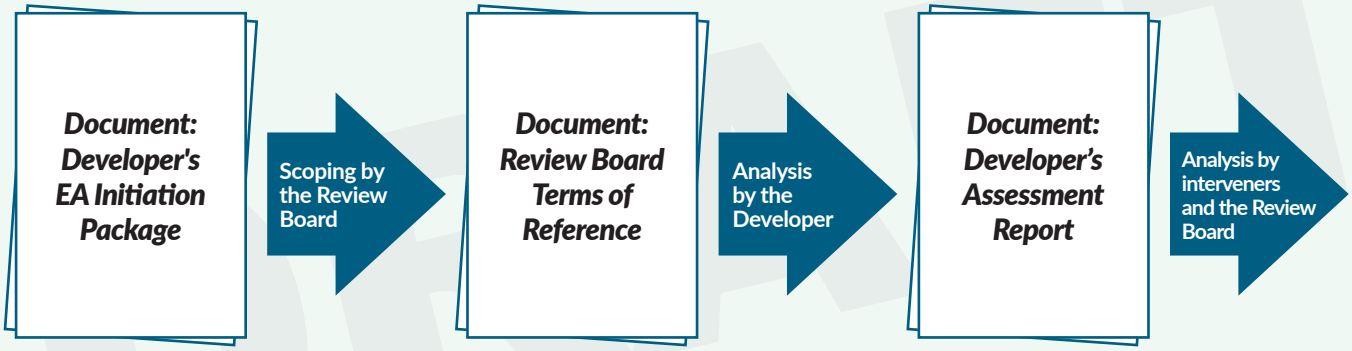


Figure 6: Flow of information during the scoping and analysis phases of an EA.

Further, the Review Board expects that this information can help more effectively scope the assessment, and therefore will be a useful tool in developing the *Terms of Reference*, which describes the information required for the *Developer's Assessment Report (DAR)*. Therefore, any information provided in an *EA Initiation Package* may be built upon and supplemented through the EA scoping and analysis phases. In addition to the information requirements described in the sections below, developers are expected to demonstrate how results from early engagement and collaborative project planning processes were addressed in the *EA Initiation Package*.

This chapter is organized around the five required components of an *EA Initiation Package* (see Table 2). Each section describes a component of the *EA Initiation Package* and the objectives that a developer must meet for that component. Appendix C describes the formatting requirements of the *EA Initiation package*. Appendix D provides a sample concordance table for the *EA Initiation package*. More detailed suggestions and considerations for project information, project components, map requirements, parts of the environment, and project interactions are described in Appendices E-I.

[7]The EA Initiation Package is intended to function as the proposal for development referenced in the Act.

Table 2: Components of the *EA Initiation Package*.

Components	Description / Purpose	Link to more information
1. Detailed Project Description	A comprehensive description (and a plain language summary) which provides a clear understanding of the proposed development (including the basic project information, components, timelines, project alternatives, and management strategies)	Section 3.1 Appendices E, F, G
2. Environmental Baseline Data	Information about the environmental conditions in the project area, which provide an understanding of how a project could affect the biophysical and human environment	Section 3.2 Appendix H
3. Potential Impacts and Mitigations	Information on where, how, and to what extent the project could interact with the biophysical and human environments	Section 3.3 Appendix I
4. Developer's Assessment Proposal	A proposal (and plain language summary) that outlines which valued components and key issues should be the focus of EA (including methods to assess their impacts), to inform EA scoping	Section 3.4
5. Engagement and Collaborative Project Planning	Information about how and with whom the developer has engaged, how engagement results are incorporated into components 1 to 4, and what future engagement the developer plans to conduct	Chapter 2 Section 3.5 Appendix A

3.1 Detailed project description

Developers must describe their project in sufficient detail so that the Review Board has a clear understanding of the proposed development (including the components, timeline, developer, project alternatives, and management strategies). This detailed project description will inform the scoping phase and future phases of the EA. The developer must support its detailed project description with a plain language summary.

Detailed project description

The detailed project description should be a **comprehensive description of the proposed project**, to the extent possible at the start of an EA. The objective is to give the Review Board a thorough understanding of the project and all its associated components. The detailed project description should:

- **provide basic project information** about the development, activities, developer, purposes, alternatives and more. Appendix E provides detailed requirements.
- **describe the project components** (such as infrastructure, waste, labour force, and emissions). This should include descriptions of the components listed in Appendix F. Project components can be physical (infrastructure such as buildings, roads, and quarries), activities (such as transportation and mining), or other things (such as human resources) the developer requires to carry out the project.
- **be supported by accompanying figures, maps, and photos** as appropriate. Supporting documents including conceptual management plans or management frameworks, partnership plans, or licence applications should be summarized or referenced in the text and included as appendices to the detailed project description if available. Appendix G provides more details.

The developer should outline the following when describing the details of project components:

Detailed Project Description *Checklist*	
✓	Describe the physical components and activities of the project
	Explain how the components relate, or are dependent, to one another
	Identify when (project phases) and where each component takes place
	Identify what methods or activities would be involved
	Explain how the components were designed
	Explain how the components would be monitored and managed
	Describe how early engagement and collaboration influenced the design of the project

Depending on the project and its setting, the Review Board may require other specific details about the project.

Plain language summary

The developer is required to provide a plain language summary of the project description, which can be used as a tool during scoping to increase public understanding of the proposed development. The summary should be stand-alone and must highlight key information about the development. It should be easy to read and provide a clear and concise overview of the development.

Information in the summary should include the following, at a minimum:

Plain Language Summary *Checklist*	
✓	Type of project
	Description of developer
	Timeline
	Location and proximity to communities and key landscape features
	Main project components, including activities and physical infrastructure
	Brief project history

The developer can use the project description above and Appendices E and F to guide the content of the plain language summary.

The summary should be accompanied by clear project maps that effectively show all activities and associated components that are part of the development, as well as the local and regional context of the proposed development (see Appendix G).

The developer is encouraged to use experienced professional plain language writers or editors to develop the summary. Translated versions of the summary may be required. Please consult with Indigenous Government Organizations and the Review Board staff during the development of the summary to confirm which translations may be most useful and appropriate.

3.2 Environmental baseline data

The Review Board needs information about the existing and future predicted environmental baseline conditions in and around the project area to start an EA. To this end, developers are expected to provide sufficiently detailed baseline information in their *EA Initiation Packages*.

Baseline data collection and monitoring is an ongoing process that occurs before, during and after EA. This process supports an ongoing understanding of the environment and is used to verify predictions and adaptively manage projects.

The specific information needed varies by the type and scale of the project, the location, existing impacts in the area, and the values of stakeholders. Not all information is needed during the pre-submission phase; however, working with various parties through meaningful early engagement and collaborative project planning (discussed in Chapter 2) will help the developer, parties, and the Review Board determine what environmental baseline information is needed early for any given project.

The developer needs to provide information about the environmental conditions in the project area through a combination of existing information, baseline studies and future projections specific to the project area. In its *EA Initiation package*, the developer needs to describe what environmental baseline information it has, as well as what information it still intends to collect during and after the EA. This information is provided in:

1. a summary of baseline information, and
2. a *baseline information plan*.

Summary of baseline data

The summary of baseline data must include **summaries of data from all studies, and surveys** (such as baseline meteorological, hydrological, employment, human health, wildlife, or vegetation surveys). In the summary, the developer should describe:

- the nature of the surveys, the expertise of the individuals conducting the work, and how the results were used to improve project design;
- how it used science-based information and Indigenous Traditional Knowledge together; and,
- how the results of engagement were incorporated in the collection and interpretation of baseline information.

The developer's description of the environment should include the biophysical and human environment (considering local context and social, cultural, health and economic factors). Appendix H outlines components of the biophysical and human environment that the developer should consider.

It is important that developers understand that Indigenous Traditional Knowledge is equal to science in the Review Board process. The Review Board expects Indigenous Traditional Knowledge to be included in baseline information.

Indigenous Traditional Knowledge is particularly important for:

- providing knowledge about long-term cycles;
- providing knowledge about the range of normal conditions in the area;
- understanding values associated with and uses of the area and;
- helping focus future work when there is a lot of variability (including long-term variation) in the environment.

See the Guidelines for Incorporating Traditional Knowledge in Environmental Impact Assessment (TK Guidelines).

Based on the definition of impact on the environment in the Act, the environment includes people. Therefore, in addition to the describing the biophysical environment, a developer should be prepared to describe relevant social, cultural, and economic baseline conditions in its *EA Initiation Package*.

The developer should consider the following when preparing its description of the environment and future baseline studies in its *EA Initiation Package*:

Existing Site-Specific Information *Checklist*	
✓	Previous baseline studies
	Traditional Knowledge studies
	Previous regulatory applications
	Publicly available data (e.g., government statistics and monitoring programs)
	Early engagement and collaborative planning

The developer should engage relevant parties early on to discuss whether historical site-specific information meets current expectations (such as appropriateness of methods and models, compatibility, relevance, and applicability).

The developer should describe how it used **results of any project-specific studies** such as baseline research, Traditional Knowledge studies and community engagement in the design of the project. The developer should consult relevant guidance (see resources listed in Appendix J) to ensure that information adequately describes the existing environment (for example, identifying critical wildlife habitat or characterizing the range of natural variability for water quality and quantity).

In light of the changing climate of the Northwest Territories, the developer should consider **projected environmental conditions** across all stages of the project. This is important because future stages of the development, such as closure or post closure, may occur in future climactic, environmental or social conditions that are different from current ones. The Review Board needs to understand which parts of the development setting are likely to change, so it can understand how the project may be affected, and the potential results.[8]

The relative weight and importance of each of component in the baseline information will vary by project. It is important that the developer consider the interconnectedness of the biophysical and human environments as a dynamic complex system.[9]

The developer should clarify any differences between the cumulative baseline (including *historical* background conditions before any industrial development occurred) and *current* baseline conditions.[10] This distinction is particularly important for framing and understanding cumulative effects.

[8]The Board acknowledges that projecting future environmental conditions is difficult and may not be precise. This is true for all predictions, including predictions of project-related effects. Developers are required to apply their best efforts, identify sources of climate projections, and include a range of best case and worst-case scenarios, describing the uncertainties associated with each impact prediction. Guidance on projected future conditions can be found by contacting Environment and Natural Resources and Environment and Climate Change Canada.

[9]See page 26 of the Report of Environmental Assessment and Reasons for Decision GNWT Tłı̨chǫ All-Season Road Project EA1617 as an example of an integrated system of people and the land showing the connections between related and interdependent parts of human and ecological systems in a project area.

[10]For clarity, this Guideline uses the term 'baseline' to refer to present conditions prior to a currently proposed development. This is different from the 'cumulative baseline', the term this Guideline uses to refer to what would happen *without* the cumulative impacts of the Project in combination all other activities. The cumulative baseline should include conditions that existed prior to any industrial development. Such conditions may be relevant reference conditions for cumulative effects assessments. (Although the cumulative impact *prediction* must include the cumulative effects, the cumulative *baseline* it is evaluated against must not.)

Baseline information plan

The Review Board understands that not all baseline information needed for an EA may be available prior to the start of an EA. Therefore the *EA Initiation Package* must include a *baseline information plan*[11] describing any additional information the developer intends to collect during the EA and beyond. This plan should describe:

Baseline Information Plan *Checklist*	
✓	What additional information will be collected
	When it will be collected and by whom
	Why the developer believes the timing is appropriate

The *baseline information plan* is not a substitute for providing the right baseline information upfront and at each assessment step. The plan is intended to allow the Review Board and EA participants to discuss the remaining baseline information needs and timing during scoping. This will help the Review Board and parties identify gaps early in the process.

[11]An early draft of this baseline information plan would be a useful tool to use during early, pre-EA engagement.

3.3 Potential impacts and mitigations

The fundamental purpose of EA in the Mackenzie Valley is to identify and prevent or mitigate potential adverse impacts on the environment and causes of public concern from all phases of a proposed development. In its *EA Initiation Package*, a developer must provide a **preliminary description of potential project impacts and proposed mitigations**. To do this, developers should consider questions such as:

	Questions for Consideration
✓	How could the project interact with parts of the environment (such as water, wildlife, habitat, people, air)?
	What chains of events and interactions are likely to occur (pathways) and do they affect things that matter most (valued components)?
	Are these pathways likely to lead to an impact that matters (a significant impact)?
	How would the project change the water, air or land?
	How would the development effect the well-being of people? • How would the development effect the culture and way of life of Indigenous people, as well as heritage and cultural sites, harvesting and traditional activities? • How would it effect the surrounding communities? • How would it effect other socio-economic conditions, such as employment?
	How would impacts from this project interact 1) with each other 2) with impacts from other projects?
	How could the potential impacts be reliably mitigated (reduced or avoided)?

This preliminary identification and evaluation of interactions will inform the *Developer's Assessment Proposal* and can help to improve project design. It will also allow the Review Board to set priorities and establish a foundation for further investigations that may be needed during the EA.

Preliminary description of potential impacts and mitigations

To the best of its ability, based on project stage and given the information available at the time, the developer should explain where, how, and to what extent the project will interact with the environment. The developer must demonstrate how it has considered the potential impacts that were identified as issues of public concern through engagement.

The preliminary description of potential impacts should describe the developer's understanding of key issues and interactions with valued components that move forward in the EA.[12] For any issues that the developer does not think should move forward, it must provide evidence that potential direct and indirect impacts from

[12]The Review Board will consider the developer's and other parties' views on key issues when it makes its decision on the scope of the EA.

the project have been meaningfully considered, and would be appropriately managed or avoided, throughout the life of the project. The developer's selection of key issues and valued components should be based on:

- ✓findings from early public and Indigenous engagement;
- ✓Traditional Knowledge;
- ✓scientific knowledge;
- ✓legislative requirements (such as the Species at Risk Act);
- ✓current and potential future environmental conditions;
- ✓predicted interactions with proposed project; and
- ✓professional judgement.

Description of Potential Impacts and Mitigation *Checklist*	
✓	How the project will interact with the environment (pathways of effect)
	What the potential impacts are, including cumulative impacts
	Which mitigation measures have been proposed to reduce or avoid those impacts
	How results of early engagement and collaborative project planning helped identify project interactions, potential impacts, and mitigation measures

For each of the components of the biophysical and human environments the developer should describe how the project could interact with that part of the environment (include direct and indirect impacts, accidents and malfunctions, effects of the environment and climate change on the project). For environmental components with no identified potential impacts, the developer should provide a rationale and describe how changing conditions or activities could affect this prediction. If there is an identified interaction but no potential impact, the developer should explain why.

When describing mitigation measures that will prevent or minimize identified impacts, the developer should clearly indicate how the mitigation was developed (for example, through community engagement, best practices, or regulatory standards) and how it would reliably and sufficiently mitigate the impact. The developer can include any draft management and monitoring plans as appendices.

In addition, the developer should list and briefly describe any cumulative impacts that could result from the proposed project. This must consider potential impacts of the project in combination with any impacts from past, present, or reasonably foreseeable future developments and activities. Also consider how cumulative effects could add to natural variation (such as weather extremes) and predicted extreme events due to climate change.

Appendix I provides an example of an effective way to illustrate how components of the proposed development could interact with and affect components of the biophysical and human environments. Appendix I also provides an example of a table that may be used to identify and characterize potential interactions, impacts, and mitigation measures.

3.4 Developer's Assessment Proposal

The *EA Initiation package* must include a *Developer's Assessment Proposal* that:

- describes the valued components the developer proposes to carry forward in the EA; and,
- outlines their proposed methods to assess potential impacts on those valued components.

This information, along with project-related information and information gathered during scoping, is used to help the Review Board decide what issues to focus on during scoping and how the issues should be assessed.

In preparing its *Developer's Assessment Proposal*, the developer should describe the following:

Description of Valued Components ***Checklist***	
✓	Proposed valued components and rationale for selecting each
	Rationale for not including topics as key issues
	A description of the pathway of effects related to the valued components
	An identification and description of the issues
	Prioritization of selected issues as Key Lines of Inquiry
	Description of how early engagement and collaboration was considered in valued component selection

The developer should describe the following key elements of their proposed assessment methods:

Proposed Assessment Methods *Checklist*	
✓	Assessment techniques and study boundaries (temporal and spatial)
	Environmental quality standards, benchmarks, or guidelines used to compare predicted effects against, and the rationale for selecting them
	Information sources to be used, including anticipated primary data collection (such as baseline and site-specific studies)
	Timelines, assumptions, information gaps, uncertainties, and approaches to addressing information gaps and uncertainties (such as additional studies required and study details)

Plain language summary

The developer must provide a plain language summary of its *Developer's Assessment Proposal*, providing a clear snapshot of the proposed issues to focus on the assessment methods. The summary should describe:

- the proposed valued components to be carried forward in the EA;
- the key issues and questions (related to project interactions) for the assessment; and,
- the rationale for the selection of the proposed valued components and key issues.

The developer is encouraged to use experienced professional plain language writers or editors to develop the summary. Translated versions of the summary may be required. Please consult with Indigenous government organizations and the Review Board during the development of the summary to confirm which translations may be most useful and appropriate.

3.5 Engagement and Collaborative Project Planning

As described in chapter 2, early engagement and collaborative project planning are important steps to fulfilling the requirements of the *EA Initiation Package*. Early engagement and collaboration benefits all parties, and supports efficient environmental assessments (EAs) by building relationships and identifying issues early in the process. The developer should develop engagement activities and methods collaboratively with each party. This will help ensure that participants agree with the strategies the developer plans to use and foster effective participation.

To begin the EA process, the developer must describe what efforts it has taken to engage effectively with potentially affected parties, how engagement has influenced other parts of the *EA Initiation Package*, and its intentions for future engagement. Appendix A provides additional guidance on how to conduct effective and meaningful early engagement and collaborative project planning.

Demonstration of how engagement informed this submission

Developers are expected to demonstrate how, when, and with whom they have engaged, and how the results of engagement have informed the development and content of its *EA Initiation Package* (particularly project design and the *Developer's Assessment Proposal*). The developer must clearly articulate how early engagement and collaborative project planning has shaped the project (including the project description, the environmental baseline, the potential impacts and mitigation, and the *Developer's Assessment Proposal*). It may be worth describing relevant activities and results in those sections in addition to within the engagement documents described below.

Engagement records and plans

In addition to demonstrating how engagement information informed the submission, the developer is required to provide an up-to-date record of past engagement for the proposed project. This should give the Review Board and parties a thorough understanding of the engagement conducted by the developer prior to the submission of the *EA Initiation Package*.

For each party engaged, the record should include:

Description of Past Engagement *Checklist*	
✓	Date, time, and location of engagement sessions
	Participants in engagement sessions (including record of attendance, roles of participants)
	Materials presented (such as copies of presentations, summaries of content)
	Meeting minutes or summaries of discussion points and responses
	Results of engagement sessions including a • summary of issues raised, positions taken by each party, and the identification of key issues or concerns, including project-environment interactions and potential impacts on the environment; • strategies employed to address the issues raised, the status of issues (such as resolved or unresolved), proposed strategies to address unresolved issues; and, • all other information collected.
	A summary of how feedback has been incorporated into the project and the *Developer's Assessment Proposal* (including any adjustments to or collaborative development of project design elements, management strategies, conceptual monitoring programs, assessment priorities and methods)

If possible, records of engagement should be signed off by all parties involved to ensure the information reported is accurate.

In addition to the record of past engagement, the developer will provide its engagement plans for each community, and any details regarding future engagement. Ideally, engagement plans will be co-developed with each potentially affected community and will include details of the developer's overall planned engagement strategies and objectives. They will also include prospective engagement schedules throughout the EA, and (at least conceptually) the life of the project.

Engagement plans should outline:

Description of Planned Engagement *Checklist*	
✓	Specific engagement activities that will be undertaken
	Methods for effective engagement
	Rationale for selecting the chosen activities and methods
	Contingencies should the prospective schedules or methods not be sufficient

Traditional Knowledge improves project design early on

Section 115.1 of the Act requires the Review Board to consider any Traditional Knowledge that is provided during an environmental assessment. To ensure that Traditional Knowledge is meaningfully incorporated into the EA, the Review Board expects developers to consider and incorporate Traditional Knowledge during project development and throughout the EA process. As part of demonstrating this, developers must clearly describe if and how Traditional Knowledge was used in each section of their *EA Initiation Package*.

The Guidelines for Incorporating Traditional Knowledge in Environmental Impact Assessment outlines the Review Board's expectations and processes for incorporating Traditional Knowledge in EIA. It describes where and how Traditional Knowledge can and should be considered in various steps of EIA, including guidance on how it should be collected, considered, protected, and represented. It is necessary to gather and use TK to inform project design before an EA has started.[13] Gathering and using Traditional Knowledge early in project design allows for easier incorporation of the knowledge and adjustment of the project design. For example, Traditional Knowledge about water patterns in the area could help identify preferred road crossing locations. Traditional Knowledge of the area could also help the developer prioritize the work it does leading up to an EA by helping it understand which valued components are most likely to be affected.

Developers should become informed of and follow local protocols and procedures developed by Indigenous organizations for the management of Traditional Knowledge, including its collection, use, review, interpretation and protection.

[13]This is stated in both the Mackenzie Valley Land and Water Board's Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits, and the Review Board's Guidelines for Incorporating Traditional Knowledge in Environmental Impact Assessment.

4. CONCLUSION

This Guidelines describes an optional, direct path to EA for developers of major projects and describes the information required to initiate an EA via this path. For additional support in applying these guidelines, the developer may contact the Review Board staff at any time.

APPENDIX A – EARLY ENGAGEMENT AND COLLABORATIVE PROJECT PLANNING

Under subsection 114(c) of the MVRMA, EIA processes must ensure that the concerns of Indigenous people and the general public are considered. The Review Board is currently working on its own Engagement and Consultation Policy. In the meantime, the Review Board is following the MVLWB's *engagement and consultation policy*[14]. As described in that guideline, the Crown, the Boards and developers all have responsibilities related to engagement and consultation. This appendix focuses on **how the developer can meet its engagement responsibilities** while gathering information for the *EA Initiation Package*.

The purpose of early engagement and collaborative project planning is to allow developers to:

- describe their proposed projects to parties[15] that may be affected by the development;
- understand the interest and desired involvement of different parties;
- evaluate whether concerns exist;
- begin to understand any concerns;
- improve project design or management strategies to avoid impacts and address issues raised by parties; and,
- co-develop an appropriate process to guide working relationships with Indigenous governments and communities.

Early engagement and collaborative project planning has the important added benefits to Indigenous governments, communities, and the Review Board described in Chapter 2.

ROLES AND RESPONSIBILITIES WHILE ENGAGING AND COLLABORATING WITH KEY AUDIENCES

Initial developer engagement should begin during early project planning (prior to applying for project authorizations and prior to referral to EA). Engagement continues throughout the EA, and if the project is approved, over the entire life of the project. Early engagement and collaborative project planning by the developer can occur with:

1. potentially affected parties including Indigenous Government Organizations, communities, and members of the public; and
2. organizations that play an active role in the development and regulation of new projects, including the Review Board, regulators, and government departments.

Role of the Developer

For the regulatory (land use permits, water licences, etc.) or EIA (preliminary screening, environmental assessment, and environmental impact review) process to begin, developers must demonstrate that their early engagement efforts were reasonable and effective. This includes:

- identifying and engaging all relevant parties;[16]
- using engagement methods appropriate for the party being engaged;
- providing sufficient details related to the project proposal, in an accessible format; and,
- allowing enough time for parties to fully consider the information and engage with the developer.[17]

[14]The Review Board has adopted the Land and Water Board's policy while it prepares its own Engagement and Consultation Policy, which will be available soon.
[15]Including but not limited to communities, individuals, and governments (indigenous, territorial, federal).

Early engagement is a good time to start asking what parts of the environment people most want the future EA to focus on (for example, traditional practices, health of caribou, or cleanliness of water), what traditional or scientific knowledge there is about the project area, and how people think the project could affect the environment (see components of the environment in Appendix H). Developers should use what they hear during early engagement and project planning to understand some of the information requirements that are likely to arise during the environmental assessment.[18]

By starting earlier, during project development, there is more room for the developer to work collaboratively with Indigenous Government Organizations and communities, and to adjust the project to address concerns. Generally, the earlier developers can engage communities and Indigenous Government Organizations, the better.

Depending on the project and location, initial engagement with Indigenous Government Organizations and communities may or may not be the first contact a developer has had with these parties. The developer should discuss its intention to develop a project, sharing the basic idea of the project and setting.

From there, the developer should start working towards an engagement plan (Section 4.1), with a goal of collaboratively refining and improving the project design and collaboratively identifying and resolving issues. If feasible, the developer and Indigenous Government Organizations should agree on an engagement plan or draft while allowing future flexibility as project planning evolves. For projects going to EA, engagement plans should be consistent with engagement and consultation policies and other board documents (for example, *Socio-Economic Impact Assessment Guidelines*, *First Nations Major Project Coalition Major Project Assessment Standard*, and *Evolving Impact Assessment in the Mackenzie Valley and Beyond Perspectives Paper*).

Resource Development Advisory Group: A mechanism to support early engagement

One option for assisting with early engagement and information gathering is to establish a Resource Development Advisory Group. These groups bring together representatives from different government agencies and Indigenous Government Organizations to advise developers on what requirements their projects may face during future regulatory processes. Developers that are interested in this option can contact the Northern Projects Management Office (Government of Canada) or the Client Service and Community Relations unit within the Department of Industry, Tourism and Investment (Government of the Northwest Territories).

These groups do not replace regulatory and environmental assessment processes, and do not guarantee any particular outcomes. However, they present an excellent opportunity for developers to get advice on what information will be required about the project, who and how to engage, and what the focus of the environmental assessment is likely to be. They are an opportunity for developers to:

- share the preliminary project and environment descriptions
- determine if any baseline data already exists (that is, already collected by others)
- seek advice about detailed baseline needs and mandate issues
- obtain input on who and how to engage
- confirm a regulatory path and requirements

[16]Prior to and during engagement, developers should consider the best ways to identify potentially affected parties and engage different sub-groups such as women, youth, and Elders to understand their perspectives.
[17]For more information refer to the *MVLWB's Engagement and Consultation Policy* available at www.mvlwb.com.
[18]There might be some baseline data collection items that do not seem as important to regulators or the developer, but might be critical to communities understanding the effects of the project. It is important for developers to remain flexible to what information will be required when, based on what they hear during engagement. Early identification of these components can allow for earlier collection of baseline data and save time during the EA by providing insight into potential valued components to be carried forward in the EA process.

Role of the Review Board

If a project is likely to go through environmental assessment, developers should reach out to Review Board staff to understand the EA process and requirements. Although Review Board members will not be involved in early discussions about the project, Review Board staff can:

- provide advice on the kind of information that the developer will be required to provide for environmental assessment and for direct referral,
- help the developer identify Resource Development Advisory Group participants and processes, and
- provide advice on meeting the requirements outlined in this guideline.

Role of Governments and Regulators[19]

Governments and regulators can help the developer determine who to engage and how to navigate the regulatory process.[20] Government and regulators can help developers to:

- identify potentially affected parties;
- provide information on requirements for aspects such as land tenure, socio-economic agreements and impact benefit agreements;
- understand the general and specific baseline requirements government, regulators, and Indigenous communities are likely to need for the EA;
- identify cost and time savings by providing advice on the timing of different stages of baseline data collection to reflect regulatory process steps and timelines (e.g., by doing water sampling at the same time as geotechnical drilling); and,
- identify specific guidance that is applicable to the project and available through relevant authorities (some of which is in Appendix J).[21]

While it is up to the developer to initiate early engagement, regulators and Crown-Indigenous Relations and Northern Affairs Canada can help support early engagement. These organizations can help developers identify which federal and territorial government departments would be particularly useful to contact.[22] Many of these groups would participate in a Resource Development Advisory Group if the developer proceeds with that option.

[19]Governments include the federal and territorial governments as well as Indigenous Government Organizations. Regulators include land and water boards of the Mackenzie Valley.
[20]Decision Makers in the Process identifies the various organizations and boards involved in the EIA process and is available on the Review Board website.
[21] References to relevant guidelines for baseline data collection will be made available as they are compiled. For example, the Government of the Northwest Territories Environmental and Natural Resources, in collaboration with the Land and Water Boards of the Mackenzie Valley, is developing draft Guidelines for Developing Baseline Water Quality Monitoring Programs in the Northwest Territories. Accessible through the MVLWB's Online Review System at http://lwbors.yk.com/LWB_IMS/Default.aspx or by contacting the Government of the Northwest Territories – Environment and Natural Resources. Currently out for review and comment.
[22]Some of the departments developers may want to contact include Canadian Wildlife Service, Environment and Climate Change Canada, Fisheries and Oceans Canada, Parks Canada, Natural Resources Canada, Health Canada, Transport Canada, Health and Social Services (GNWT), Environment and Natural Resources (GNWT).

KEY STRATEGIES FOR EFFECTIVE EARLY ENGAGEMENT AND COLLABORATIVE PROJECT PLANNING

While there is no single way to proceed with engagement, there are many strategies that developers can employ to support greater inclusion of other parties in project planning. Engagement is an iterative process that requires good planning, different and tailored mechanisms for engaging (that are developed in collaboration with the party being engaged), and the critical step of following-up on what was heard and how that input will be used. Engagement should be tiered and scaled based on available information. Early during the life of a project, engagement may be less frequent, but as more information becomes available, engagement should increase. Developers should consider employing the following strategies for planning, engaging and following-up on engagement activities.

PLANNING

Preparing to engage - The context in every community (including governance and Indigenous laws, current events and priorities, capacity and experience with and/or readiness for resource development) can vary greatly. It is important for developers to do their "homework" and develop an understanding of the community and its context as part of its engagement planning efforts. Developers should consider the costs of engagement and the time and resources required to appropriately engage with communities when considering financing and budgeting for the project.

Co-developing the engagement approach - Developers should consider co-developing engagement activities and methods rooted in respect with each party. This will help developers to determine the right people and groups or sub-groups to engage, the timing of that engagement, suitable engagement mechanisms and what information is needed for the party to be fully engaged. This will also help ensure the developer is using appropriate strategies and foster effective participation. The developer should consider the benefits of community-specific engagement strategies and plans.

Collaborating with local partners - Developers should consider collaborating with local partners (that is, organizations, groups, or individuals) who can help to advise on engagement approaches and may be well positioned to assist with community engagement activities, including reaching specific segments of the community. Developers should prioritize hiring locally to support their team.

ENGAGING

Creating safe, culturally appropriate engagement opportunities – Good engagement needs to start with a process and activities that work for the people being engaged. Developers are often engaging with people in their home communities about projects that are in their "backyard", in traditional areas they have used for generations. Good engagement needs to be respectful of people's culture and connection to the land.

Creating space to influence project design - To enable effective early engagement and collaboration, developers need to be able to provide enough detail to help others envision the project. Developers should be clear about what is needed to proceed with a viable project, while outlining options or elements where community input would assist to inform the design.

[23]Available at www.reviewboard.ca.

Understanding values, interests and needs - In addition to understanding community concerns about a project, it is also important to understand both the community's rules, norms and values, and its vision, aspirations, interests and needs as they relate to major projects. Understanding this information allows developers to proceed in a way that integrates these laws, norms and values, while seeking to meet multiple objectives in planning the project.

Engaging on the full project life cycle, including opportunities to participate in the project - Developers should be prepared to discuss the full life cycle of the proposed project and its potential impact and the opportunities for participation at each stage. Providing details of potential impacts to the environment and opportunities for community involvement throughout the project enables a more thorough understanding of the potential impacts of the project (both positive and negative). Developers should be prepared to answer questions about training, employment, and procurement opportunities.

Providing adequate and accessible resources and information - Developers should try to use different types of media (in addition to written materials) to present project information, such as video, 3D imaging, drone footage, interactive presentations, models, and mapping. These resources should supplement written materials to help a wider audience understand project information in different ways. Translating materials into Indigenous languages and using Indigenous place names to refer to specific areas in materials can also assist communities in better understanding and engaging with the project.

FOLLOWING-UP

Reporting back to the community - Developers should prepare a summary of what they heard during engagement, with an explanation of how that input will be used to influence project design. Sharing this information with the community helps show them that they've been heard and provides an opportunity for them to validate how the developer plans to respond to feedback – an important component of interpreting community input. Ideally, the community or Indigenous government will provide feedback on how their input has been incorporated.

KEY RESOURCES FOR EARLY ENGAGEMENT AND COLLABORATIVE PROJECT PLANNING

The table on the next page highlights resources available to developers that provide practical guidance, strategies, and tools for effective engagement in the Mackenzie Valley and across Canada. Developers are encouraged to review the documents for additional information on how to effectively engage communities and enable collaborative project planning and check the Review Board website for new and updated materials as they become available.

Resource	What it Covers / How it will Help with Early Engagement and Collaborative Project Planning
Mackenzie Valley Environmental Impact Review Board	
Socio-Economic Impact Assessment Guidelines	These provide guidance on activities that should be undertaken prior to commencing early community engagement, how to prepare for early community engagement, how to identify potentially affected communities and groups, considerations for conducting engagement and what should be captured in the record of engagement. While these Guidelines are focused on SEIA, much of the guidance is applicable to broader approaches to early engagement on the proposed development as whole. This could be applied by developers who are following these EA Initiation Guidelines.
Guidelines for Incorporating Traditional Knowledge in EIA	These provide guidance for developers to work collaboratively and respectfully with communities to contribute to a fair and balanced EIA process, understanding and respecting the benefits of Traditional Knowledge (TK) in environmental decision making. Incorporation of TK is a requirement set by land claims in the Mackenzie Valley and the MVRMA. Including TK in the EIA process adds a historical perspective and understanding of the variability and extent of biophysical, social and cultural trends. This can help establish baseline conditions, predict possible impacts and determine mitigation and monitoring methods. TK holders can also identify links between components of the environment that Western science may otherwise overlook. This can provide value to a developer's project planning, focus the scope of the EIA, and assist in establishing stronger relationships with potentially affected parties.
Mackenzie Valley Land and Water Board (MVLWB)	
MVLWB Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits	These support developers in their engagement efforts with affected parties while outlining what developers must do to meet the Land and Water Board's requirements for engagement. The Guidelines include a step-by-step process and supporting templates to meet the MVLWB's engagement requirements, including how to identify affected parties, initiate, plan, and record dialogue with communities. Engagement best practices and approaches are also included to support meaningful and effective engagement to assist in reaching positive outcomes for all parties.

Broader guidance, including industry best practices	
Mining Association of Canada's Toward Sustainable Mining Indigenous and Community Relationships Protocol	This assessment protocol sets out the general expectations for Indigenous and community relationships as part of the Toward Sustainable Mining initiative and supports implementation of initiative's Mining and Indigenous Peoples Framework. Two of the five indicators in the protocol (indicators #2 and #3) outline expectations for effective community of interest and Indigenous engagement and dialogue. Expectations outlined in Level A represent good practice (and the minimum desired level the industry aims to have all members achieve). Expectations in Level AA and AAA represent strengthened business integration and excellence and leadership (respectively). Combined, expectations in Level A, AA and AAA provide guidance for practices that support meaningful ongoing engagement.
Prospectors and Developers Association of Canada's e3Plus Engage Host Communities and Other Affected and Interested Parties	This framework provides practical advice for developers on engaging with potentially affected communities, including strategies for properly preparing for engagement, implementing engagement strategies, and how, when and what to disclose about the proposed development. These best practices can assist developers in building relationships through understanding the context of the communities with which they are engaging, leading to inclusive and meaningful participation of community members.
First Nations Major Project Coalition Major Project Assessment Standard	This Standard describes expectations of First Nations for developers in environmental assessments, particularly those that are First Nation-led. The document outlines nine guiding principles that provide suggestions for developer engagement with communities that fosters the meaningful inclusion of Indigenous communities in the environmental assessment of major projects. Each principle outlines detailed criteria that facilitate integration of First Nation perspectives and respect for Indigenous governance and decision-making, through joint development and conduct of activities in the assessment process and a central role for Indigenous people in the mitigation and monitoring through the full extent of the project lifecycle. Emphasis should be placed on engagement in the identification and assessment of ecological effects of the project and include western science and Traditional Knowledge, placing importance on the harvesting and cultural rights practices of the affected community. Developers are encouraged to provide information to communities in a timely and meaningful manner in a way that is accessible to all participants so that communities can make informed decisions.

APPENDIX B – HOW A DIRECT REFERRAL TO EA AFFECTS OTHER PARTS OF THE EIA PROCESS

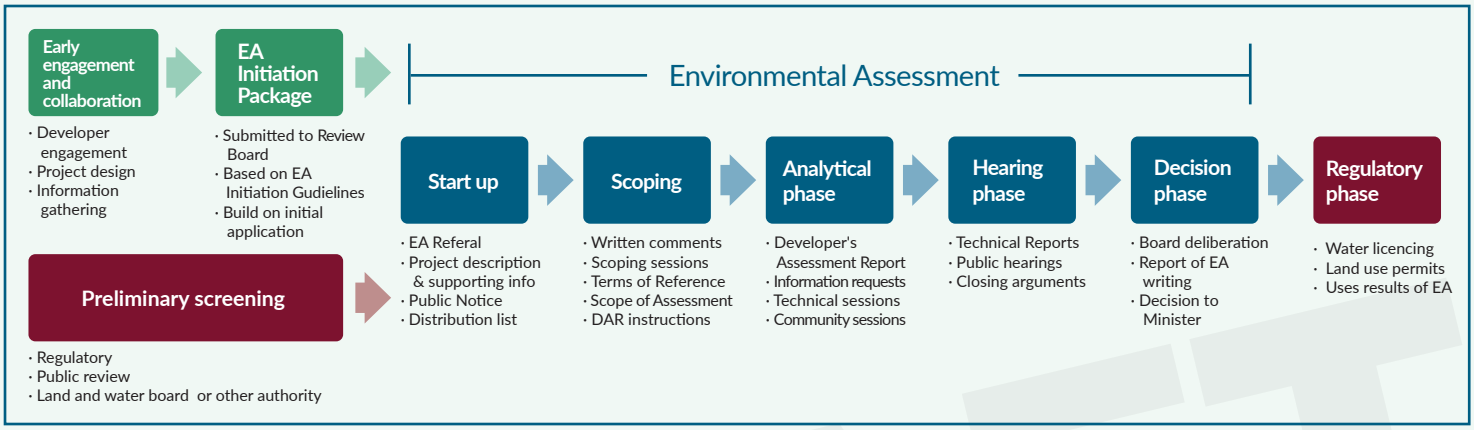


Figure 7: EA Initiation Package in the EA Process.

A. PRELIMINARY SCREENING

Currently, preliminary screenings are conducted by the regulatory authority or government department that receives an application for an authorization, such as a Land and Water Board. All applications go through a preliminary screening (a cursory assessment of potential impacts), and depending on their potential to cause significant adverse environmental impacts or potential public concern, they may be referred to the Review Board for EA.[24,25]

The majority of development proposals (over 95%) only require preliminary screening and are not referred to EA or EIR.[26] However, most major projects, such as new mines, midsize or large hydroelectric projects, oil and gas production projects, or major changes to existing projects, are likely to require an EA. These major projects are the ones that these Guidelines are intended for.

By following this guideline, developers for major projects have the opportunity to avoid duplicative time in the regulatory process and go straight to environmental assessment.

B. EA START UP PHASE

Project is referred or ordered to EA

A project can be referred to EA by any authority that receives an application for an authorization or ordered to EA by the Review Board under Section 126(3). Whether a project is referred or ordered to EA, the subsequent process is the same.

If a developer follows this guideline and its project is ordered to EA by the Review Board, this does not reduce the overall information requirements or infringe on the authority of another board or agency. After the EA, the project will go back to any regulatory processes (like a water licence) that is required.

[24]There are some exemptions, under section 119 and subsection 124(1) of the MVRMA.
[25]For more information regarding preliminary screening, see the Review Board's Environmental Impact Assessment Guidelines at www.reviewboard.ca.
[26]Environmental Impact Review is a similar process to EA, but is the highest level of scrutiny for a proposed development under the MVRMA. See the Review Board's Environmental Impact Assessment Guidelines available at www.reviewboard.ca.

C. EA SCOPING PHASE

Scoping

The first step in the EA process is scoping during which the Review Board determines the scope for the EA. This includes both the scope development and scope of assessment:

- The **scope of development** describes what the developer proposes to do.
- The **scope of assessment** identifies and prioritizes the issues that will be investigated in depth during the EA.

To establish the scope of assessment, the Review Board relies on input from parties (such as Indigenous governments, Indigenous groups, the public, government departments, NGOs) and the developer through discussions about:

- *What* is being proposed (the project details, Section 3.1)
- *Which parts of the environment* are likely to be affected (Sections 3.2 and 3.3)
- *What issues or concerns* are most important (Sections 3.3-3.5) (the potential impacts and valued components); and
- *How* to investigate and assess potential impacts on the valued components (Section 3.4) (the assessment methods).

The information provided by the developer in Sections 3.1 and 3.2 (project description and description of the environment) and Section 3.4 (the Developer's Assessment Proposal) acts as a starting point to answer the questions listed above.

The Review Board will then issue the final scope of development and assessment — the scope of EA. This is included in the Review Board's *Terms of Reference*.

Terms of Reference

The *Terms of Reference* describes the scope of the EA and the minimum information that the developer is required to submit in its *Developer's Assessment Report* (DAR). It also provides guidance on the assessment methods. By providing a complete *EA Initiation Package*, scoping will likely focus on the issues that matter most, resulting in fewer valued components that require detailed assessment in the DAR.

In the past, the Review Board has sometimes relied on the developer's expertise to propose a *Terms of Reference* for the DAR. As project specialists, developers possess considerable project-specific knowledge and information from research and engagement during the project planning stages. As such, developers are well suited to propose initial assessment frameworks that identify key areas for investigation, and assessment methods. The Developer's Assessment Proposal described in this Guideline is intended to replace the developer's proposed *Terms of Reference* used in past EAs. The Review Board would still issue a *Terms of Reference* following EA scoping activities.

D. EA ANALYSIS PHASE

The EA analysis phase is not expected to substantially change as a result of following this guideline. The developer will normally still submit a *Developer's Assessment Report* followed by information requests and technical sessions. See the EIA Guidelines for more detail.

E. EA DECISION PHASE

The EA decision phase is not expected to substantially change as a result of following this guideline. The Board will still hold public hearings and received interventions and closing arguments from intervenors, and will produce a *Final Report of Environmental Assessment and Reasons for Decision*.

F. REGULATORY PROCESS FOLLOWING AN EA

Following an EA, the project returns to the regulatory process for any associated water licences or land use permits. Following this guideline to go directly to EA does not change this process or reduce any of the associated information requirements.

APPENDIX C – EA INITIATION PACKAGE: FORMAT AND STRUCTURE

In preparing the *EA Initiation Package*, developers should organize and present information in the format and manner most appropriate to the project and its context, ensuring that information is clear and thorough. Developers should include the following items to assist the Review Board in reviewing materials in the *EA Initiation Package*:

- a table of contents referencing all relevant headings, subheadings, and appended materials
- a comprehensive table of definitions and abbreviations
- maps provided in the required standard format with legible grids, suitable scaling, NTS Map number, latitude and longitude references, titles, a north arrow and relevant legends.
- a concordance table demonstrating where and how all the information has been included. See Appendix D for an example of an *EA Initiation Package* concordance table.

Where the developer uses management plans or other supporting materials to satisfy requirements of the Guidelines, it should provide an informative summary of each in the *EA Initiation Package* (such as in the project description section). The summaries should include references to the supporting materials, which can be submitted as appendices.

A minimum of one electronic copy and three hardcopies should be provided, as well as copies of all multimedia resources. (The Review Board may request additional hardcopies and other translated information in addition to the required plain language summaries.)

For additional guidance related to document formatting and organization, please refer to the Review Board's *Document Submission Standards*.[27]

Note: The Review Board does not accept references to external electronic sources such as online databases or websites as a submission.

[27] Available at https://reviewboard.ca/reference-library-page/policies-and-standards.

APPENDIX D – SAMPLE CONCORDANCE TABLE FOR EA INITIATION PACKAGE

EA Initiation Package Information Requirements	
EA Initiation Package Component	**Description**
Part I: detailed project description	Provide a detailed project description that describes the development, activities, developer, purpose of the project, alternatives and more. Project components should be described in detail.
Part I: detailed project description	Provide a plain language summary of the project description. The summary should provide an effective snapshot of the proposed development and introduce details on the proposed project and the developer that will be further expanded in more detailed sections of the project description.
Part II: environmental baseline data	Provide as much relevant information as is feasible at the start of an environmental assessment, for both the biophysical and the human environments. In particular, the developer should provide a summary of all scientific data, studies and surveys that were used to design the project. The developer should also clearly describe how it used science-based and Indigenous Traditional Knowledge.
Part II: environmental baseline data	Provide a *baseline information plan* for any baseline information that is necessary for understanding impacts of the project but is not available at the beginning of the environmental assessment. This plan should describe what information will be collected, when and by whom it will be collected and why the developer believes the timing is appropriate.
Part III: potential impacts and mitigation	Provide a preliminary description of the interactions and pathways of effect between the project and the biophysical and human environments.
Part IV: developer's assessment proposal	Describe the developer's assessment proposal, or the plan for assessing impacts of the project, including which valued components and key issues the developer believes should be the focus of the environmental assessment and how the developer intends to assess the impacts.
Part V: past and planned engagement	Provide an up-to-date record of past engagement for the proposed project.
Part V: past and planned engagement	Describe planned engagement for the future, including engagement strategies, objectives and prospective schedules. If possible, engagement plans should be co-developed with each potentially affected Indigenous Government Organization.

Section of EA Initiation Guidelinews	Section of the developer's Initiation Package	When will any additional information for this topic be provided?
Section 3.1 Appendix F Appendix D Appendix G Appendix E Appendix J		
Section 3.1		
Section 3.2 Appendix H		
Section 3.2 Appendix H		
Section 3.3 Appendix I		
Section 3.4		
Section 3.5 Appendix A		
Section 3.5		

APPENDIX E – BASIC PROJECT INFORMATION

Developers are required to include basic project information in an *EA Initiation Package*. The table below provides examples of the types of information and level of detail that is appropriate. In addition to the example below, developers should follow guidance in Chapter 3 of this document as part of determining the appropriate content and level of detail in the project description.

INFORMATION REQUIREMENT	TYPICAL INFORMATION TO PROVIDE OR QUESTIONS TO ANSWER
I. PROJECT TITLE	• Provide the title of the project, as used by the developer.
I. PROJECT TYPE	• Identify the primary project type (such as a gold mine, hydro project or public infrastructure) and any major accessory components (such as all-weather road development, utilities, and truck and aircraft transportation that the primary project requires).
III. PROJECT LOCATION	• Describe the project location both locally and regionally, using maps as described in section 3.1 and appendix G. Show the location in comparison to communities and major landmarks.
IV. PROJECT TIMELINE	• Identify the project phases, describe the timing for each phase, and the timing of any components within each phase. Process maps and tables should be used to clearly show the sequencing and timing over the lifecycle of the project. The phases normally include: o mobilization; o construction; o operations; o closure; and, o post-closure and reclamation. • If applicable, the developer should include any potential future developments associated with the project, such as possible expansions and induced developments. • Exception: For developments with indeterminate timelines (such as public all-season roads), developers should identify the phases where applicable, as well as the management responsibilities that would apply to each phase and how the development will transition into existing long-term management programs.

INFORMATION REQUIREMENT	TYPICAL INFORMATION TO PROVIDE OR QUESTIONS TO ANSWER
V. ABOUT THE DEVELOPER	• Provide a description of the developer, including any subsidiary companies, related corporations, and/or joint venture partners. • Provide contact information for the company, including names and contact information for key employees responsible for the project. • Provide evidence of the financial viability of the developer to cover the costs associated with an EA (including providing a DAR, holding engagement meetings, responding to information requests, and participating in public hearings), as well as to undertake the project including closure and reclamation. • Provide a summary of the developer's corporate history and operational experience in Canada and the Northwest Territories. • Provide details on how the developer would ensure that its contractors and subcontractors honour any commitments made by the developer throughout the EA process. • Provide a description of environmental performance and regulatory compliance records for the developer and its partners associated with prior work related to the project or any other projects in the Northwest Territories and Canada (relevant documents can be included as appendices). • Provide a description of any corporate principles, policies, codes of practice, programs or plans related to the project, such as environmental, sustainable development or community engagement policies (copies can be provided as appendices).
VI. PURPOSE OF THE PROJECT	• Discuss the objective of the project (such as diamond mining or hydro electricity production) and the likely end use any products (such as sale as a raw material, finished material, intermediate product or local use). • Discuss the need for the development (including, if applicable, the benefits to local communities, the Northwest Territories and Canada).

VII. DESCRIPTION OF THE RESOURCE (IF APPLICABLE)	• Provide a detailed description of the resource (e.g. oil and gas, minerals, metals), and the surrounding geology:
	  o physical nature of the resource (such as characteristics of the ore body or host rock);
	  o geology and mineralogy of the surrounding area (such as identification of faults or fractures); and,
	  o results of geochemical tests and methodologies.
	• Describe any inferred and measured mineral resources and the production capacity.

INFORMATION REQUIREMENT	TYPICAL INFORMATION TO PROVIDE OR QUESTIONS TO ANSWER

VIII. ECONOMIC PROJECTIONS	• Discuss the economic considerations for the project, including estimates for:
	  o capital and operating costs (by project phase, including temporary closure scenarios);
	  o procurement strategies (including procurement priorities and sectoral breakdowns);
	  o taxation and royalty revenues;
	  o contributions to gross domestic product; and
	  o economic vulnerabilities (including forecasts of commodity prices where applicable).
	• Identify likely benefit agreements and provide non-confidential details related to their status, subjects covered and progress.

IX. PROJECT AUTHORIZATIONS	• Provide a list of all permits, licences and authorizations required to carry out the development and the status of those authorizations, including:
	  o water licences and land use permits;
	  o surface and subsurface leases and land tenure;
	  o authorizations or permits from federal, territorial, or Indigenous governments (for example: Natural Resources Canada, Department of Fisheries and Oceans Canada, Environment and Climate Change Canada, Transport Canada, Government of the Northwest Territories, the Tłı̨chǫ Government, the Dél̨ı̨ne Got'ine Government).

X. CONFORMITY WITH EXISTING REGIONAL PLANS AND INITIATIVES	• If the proposed project would occur in an area with an approved land use plan, the developer should demonstrate how the proposed development complies with the land use plan. Draft land use plans should also be considered. • Discuss the implications of any current or prospective habitat management plans or protected areas near the project (such as the Bathurst Caribou Range Management Plan or boreal caribou recovery strategies). • Describe the extent to which the effects of the project hinders or contributes to the Federal and Territorial Governments' ability to meet their environmental obligations and climate change commitments.

INFORMATION REQUIREMENT	TYPICAL INFORMATION TO PROVIDE OR QUESTIONS TO ANSWER
XI. PROJECT HISTORY	• Provide regulatory history details related to previous and/or related projects (such as exploration programs) including associated permits or licences, mineral claims, leases, and any additional information related to relevant project history.[28]
XII. PROJECT ALTERNATIVES	• Describe alternatives to the project to meet the same need (see VI above). • Describe all technically and economically feasible alternatives within the project that were considered during project development. This may include alternative technologies, designs, management plans, timing, location, methods and more. • Describe the preferred option and why it was selected.
XIII. PROJECT EVOLUTION IN RESPONSE TO CONCERNS RAISED DURING ENGAGEMENT	• How did early engagement inform the project? • Did engagement change any of the components of the project?

XIV. MONITORING AND MANAGEMENT PLANS	• Provide a list of all management and monitoring plans anticipated for the project and a proposed schedule for drafting conceptual and full plans. The Review Board understands that developers may only have conceptual monitoring and management plans or frameworks available. Regardless, some detail about all anticipated plans must be provided to support content in the main body of the project description. For all plans, developers should follow best practices and refer to relevant external guidance from regulators and administrative bodies (see Appendix J).
	• For plans related to specific components of the project, developers should describe how the plan relates to that component (for example during project operation, management, monitoring), and answer the following questions:
	  o How were these plans developed?
	  o How do the plans ensure operational needs are met, environmental considerations are addressed and legislative requirement are met?
	  o How do the plans follow or improve on standard best practices in the Canadian North?
	• For plans not related to a specific project component(s), such as a wildlife management and monitoring plan, the developer should describe the process for developing these plans and what effects the plans are intended to manage or mitigate.

[28]Developers should endeavour to provide detailed information related to project history to allow the Review Board and parties to effectively identify all interdependent and/or linked undertakings related to the proposal or other developments.

APPENDIX F – PROJECT COMPONENT INFORMATION

The table below identifies general project components that the developer should describe as part of the project description. In addition to these, there may be project-specific components that the developer must describe in similar detail. For any project components that are not covered below, the developer should clearly identify and describe them using the questions below as well as the examples below of the types of information that the Review Board requires:

- What physical components and activities are part of the project?
- How do the components relate to one another? Which components depend on which others to function?
- When (project phases) and where would each component be required?
- What methods or activities would be involved?
- How were the components designed or chosen?
- How would the components be monitored and managed?
- How were the results of community engagement and collaborative project planning incorporated into the selection and design of project components?

Chapter 3 of this guideline may assist the developer in further determining the appropriate content and level of detail.

I. INFRASTRUCTURE (INCLUDING BUILDINGS, QUARRIES, ROADS, ETC.)

- What buildings and infrastructure are required and how would they be used? Describe:
    - timing and project phase (such as seasonal, life of the project, or permanent);
    - traffic volumes and/or operational capacity; and,
    - occupancy and use of buildings and accommodations (such as camp size).
- If relevant, identify existing onsite infrastructure and equipment that would be used as part of the development (such as adits, drill holes, buildings, roads).
- If relevant, identify any existing liabilities on site, such as contamination or old structures.
- Would any quarries be required to develop project infrastructure?
    - If so, how much and what types of material would be required?
    - How would they be operated and managed throughout the life of the project?
- What kind of storage would be required on site (such as for ore, waste rock, materials)?
- Describe how infrastructure and accessory component sites (such as a quarry site) were selected and what considerations were included in decision-making. These considerations may include Traditional Knowledge, environmental components (such as, wildlife, waterbodies, ground stability, acid rock drainage, permafrost), or operational considerations.
- Describe the site, building and infrastructure design plans.
    - How were they developed?
    - Are they appropriate for northern environments like the project area?
    - Do they account for climate change related effects?
- What monitoring and management plans apply to project infrastructure for all phases of the project?

II. EQUIPMENT

- What equipment is required and how would it be used (such as type, size, weight, and function)? Include existing onsite infrastructure and equipment that would be used as part of the development, if any.
- What are the monitoring and management plans related to all equipment use, storage, maintenance, and disposal (such as operations and contingency plans, noise management plans, dust management, emissions management plans, energy efficiency plans, disposal plans, spill management plans)?

III. TRANSPORTATION

- How would the site be accessed and resupplied?
- How would personnel be transported on-site and off-site for project activities?
- How would equipment or resources be transported to site?
- How would any product be transported from the development to future destinations?
- What are the proposed transportation routes, traffic volume, and schedules for all transportation methods (such as ground or air transportation), and how were they developed?
- What are the monitoring and management plans for all project transportation (such as operational plans, dust management plans and noise management plans)?

IV. LABOUR FORCE AND HUMAN RESOURCES

- Discuss the labour requirements, employee programs and policies, and workforce development opportunities for the project. At a minimum, details should include:
    - opportunities for employment and training;
    - expected workforce requirements and timelines for employment opportunities;
    - communities of focus for hiring opportunities and anticipated hiring policies (including hiring programs, details on work and transportation schedules);
    - employee assistance programs (such as career planning, employee counselling, family support, transition planning); and
    - workplace policies and programs (such as codes of conduct, workplace safety programs, and cultural training programs).
- What kind of contracting does the developer expect will be needed during each phase of the project?

V. WATER AND WATER MANAGEMENT

- Where would water for the project come from?
- How would water be accessed and transported (such as intakes and transport methods)?
- How much would be used for project activities (such as camp operations, mill, winter road development or dust suppression)?
- How would it be treated and recycled?
- What considerations were used for selecting the water source (such as TK, proximity to infrastructure, impacts to flow or volume)?
- What infrastructure (such as retention structures, diversions, and dykes) and equipment would be required to access and manage all water?
    - How were they designed?
    - What frequency event (such as a 1 in 100 year flood) are they engineered to withstand?
    - How would they be managed?
- What are the monitoring and management plans related to all project interactions with water for the life of the project?

VI. HAZARDOUS MATERIALS

- What types of hazardous materials (such as diesel, jet fuel, lubricants, drill additives, or hazardous wastes) would be required or generated as part of the project?
    - What would they be used for?
    - How would they be generated and in what quantities?
- How would all hazardous materials be transported to or from site, handled, stored and disposed of?
- What are the monitoring and management plans for fuel and hazardous materials (including spill and emergency response plans)?

VII. POWER

- What are the power source(s) for all components and phases of the project?
- What equipment and fuel would be required to maintain power generation?
- What are the monitoring and management plans for power generation facilities and equipment?

VIII. WASTE AND WASTE MANAGEMENT

- What types of waste would be produced, how would they be produced and in what quantities? For example:
    - sewage
    - grey water
    - combustible and non-combustible solid waste
    - hazardous waste
    - contaminated soils, water, and snow
    - empty barrels/fuel drums
    - process water
    - waste rock
    - tailings
    - other (such as, contact water, groundwater)
- How would all wastes associated with the project be managed, including collection, handling, transportation, treatment and disposal methods?
- What are the monitoring and management plans for all waste?

IX. EMISSIONS (INCLUDING GREENHOUSE GASES)

- By project phase, what are the projected emissions for all project equipment (such as vehicles, generators and heavy/light equipment)?
- Provide an estimate of greenhouse gas emissions for the life of the project. This should follow the Prospector's and Developer's Association of Canada methods. [29]
- What are the monitoring and management plans for emissions and waste (such as emissions management plans, energy efficiency plans)?

X. CONSTRUCTION AND OPERATION ACTIVITIES

- Describe all methods for construction and operation of the project. Reference best practices where appropriate.
- Describe methods for constructing infrastructure.
- Describe extraction and milling methods, rates of production, and production capacity (if applicable).
- If processing will happen on site, describe the methods and what is required.
- Describe any exploration, extraction, and/or processing activities that are not covered in the sections above, including relevant monitoring and management plans.

[29] Available at https://www.pdac.ca/priorities/responsible-exploration/climate-change/pdac-guidance-and-tools#ghg-emissions-calculator .

XI. CLOSURE AND RECLAMATION

- How and when would the project and project site(s) be decommissioned and remediated? The description should include:
    - methods, technology, and management plans;
    - equipment, infrastructure, and personnel requirements; and,
    - reclamation schedule (including progressive reclamation).
- What are the baseline and background levels of contamination on-site, and expected contamination resulting from the project (such as a sump, tailings disposal facility or lagoon), including:
    - nature of contamination (such as types, volumes, extent and environmental hazards);
    - wastes (such as types, volumes and environmental hazards);
    - locations; and,
    - management methods.
- What are the remediation or reclamation objectives for the proposed project?
    - How were they developed?
    - How would progressive and final remediation or reclamation objectives and activities be monitored to evaluate short- and long-term effectiveness and success?
- After remediation, what will be left on site, and how will it be different from before the development?
- What are the monitoring and management plans for all closure and reclamation activities?

APPENDIX G – MAP REQUIREMENTS

As part of the plain language project summary and detailed project description, the developer should provide maps showing the project and key features (as listed below) at local (1:50,000 or more detailed) and regional scales. These maps should be at appropriate scales to illustrate project features in relation to the project area. Show the map scale and distance to nearby landmarks.

Project information

- Show all physical locations required for the project to proceed, including:
    - proposed infrastructure that will be built or used (including temporary, permanent and existing infrastructure);
    - locations for any project activities (including transportation, construction, exploration, surveying and mining); and,
    - boundaries of any permits and leases (such as land use permits, surface leases, subsurface mineral tenure and right of ways).

Key landmarks and place names

- Show relevant landmarks and place names, including:
    - names of large waterbodies and waterways;
    - names (common or traditional) of places and communities;
    - local and regional governance boundaries (like municipal boundaries, the boundary of a settled land claim area);
    - known areas of cultural importance, traditional use, recreational or other public use;
    - designated areas such as protected areas, national and territorial parks; and,
    - locations of other nearby developments.

Wherever possible, the dimensions, footprints and relative locations of infrastructure and activities should be shown on a site map. Indigenous language place names should also be included wherever possible and available. In addition, it may be useful to show land ownership, watershed, or drainage information. Translated maps may be useful.

APPENDIX H – COMPONENTS OF THE ENVIRONMENT FOR BASELINE DATA COLLECTION

The lists below are a preliminary list of the topics developers should consider when gathering baseline information. Developers should follow guidance in Section 3.2 of this document as part of determining the appropriate content, level of detail, timing, and focus of baseline data collection. Developers should also consider future data requirements for monitoring when determining what data to collect.

Although the table below breaks subjects into separate components, developers should carefully consider how each of these parts interrelate. Understanding how the separate parts fit together systemically is critical for understanding how a project could lead to impacts. In addition to providing information on each component, developers should provide baseline information on the system overall – how the components interrelate.

Developers should describe the biophysical environment in the setting where the project would be located (local conditions), as well as further areas that the project could affect (for example, regional conditions). This should include information on all parts of the biophysical environment relevant to understanding project design and potential impacts including wildlife, water, soils, vegetation, climate, aquatic species, geology, landscape features and more. When deciding what information to collect, developers should consider what information will be required to support future modeling and monitoring.

Where applicable, the information provided should describe the current background and historical baseline conditions and trends, as well as future predictions. It is also the developer's responsibility to clearly identify the sources of information used. The table below is an example of biophysical environmental components that should be described, at minimum, for natural resource development projects.

Category	Aspect
Terrain and Soils	• local geology, including geochemistry • characterization of soil composition and soil stability • presence and characterization of permafrost
Ecosystems	• terrestrial • wetlands • aquatic

Climate and Meteorology	• climate of the project area, including:
	  o historical and predicted extreme events and trends
	  o temperature
	  o precipitation
	  o wind
	• climate change trends and predictions
	• history and extent of forest fires in the project area

Category	Aspect
Air quality	• ambient background air quality
Groundwater	• ground water level • flow regime, direction, infiltration • influences of geologic structures • water type and quality
Surface Water	• location and type of water bodies (such as rivers, wetlands, lakes) • description and uses of key water bodies (such as aquatic habitat, drinking water, cultural uses) • watersheds and water drainage patterns • surface water balance • water quality
Fish and Aquatic Life	• species, population, distribution, seasonal variations, movement and migration patterns, habitat • endangered, threatened, rare species • culturally important species • sport-fishing species • ecosystem characteristics, species interdependence
Vegetation	• species, abundance, distribution, plant community richness, diversity and successional stage • endangered, rare, threatened, or other listed species • culturally important species
Wildlife and Birds	• species, population, distribution, seasonal variations, movement and migration patterns (including wildlife corridors), habitat • endangered, threatened, rare or other listed species • culturally important species • traditionally and non-traditionally harvested species • ecosystem characteristics, species interdependence • existing levels of noise and light disturbance • relevant management plans and buffer zones
Land Use Planning	• regional land use plans • federal, territorial, and other protected areas

Developers should describe the human environment in the area where the project is located, as well as in other areas where project-related effects could occur (such as communities along transportation routes, where hiring would occur, or that use the project area for cultural or other uses). The developer should identify relevant conditions of the human environment at both a local and regional scale. Where possible, the information provided should include both current and historical baseline information and trends as well as forward looking, aspirational objectives for social, cultural and economic well-being.

In addition to statistics and information from government departments, developers should also try to understand local and regional social, cultural and historical contexts. Understanding these contexts is important for understanding how people might experience impacts from a project. Wherever possible, this contextual information should include information that can be used to understand how different vulnerable subgroups within a community may experience impacts and/or access benefits from the development.[30]

The list below is adapted from the Review Board's *Socio-Economic Impact Assessment Guidelines* and illustrates information that is typically required for descriptions of the human environment baseline conditions.[31] These information requirements include describing the social and economic conditions, historical and current land use, cultural and heritage resources, and health and well-being. The developer is required, at minimum, to provide information on these parts to comprehensively describe the human environment.

Category	Aspect
Local, Regional, and Community Plans	• community and regional land use plans • economic or social development plans
Community Priorities and Wellness	• general community wellness (from resources such as community wellness reports and studies, community feedback on wellbeing and results of early engagement) • community priorities and concerns (for example, from engagement feedback, community development plans and community resilience plans) • community strengths and vulnerabilities • community networks and governance • information about community values, aspirations, fears, expectations, anxieties, cohesion • community well-being indicators, if available

[30]This information may be useful for future GBA+ or vulnerability analyses.
[31]The Review Board's Socio-economic Impact Assessment Guidelines provide detailed direction on the expectations and standards for assessing a project's impacts on the human environment during the EA process. Chapter 3 provides more detail on how to conduct a socio-economic impact assessment, including guidance on what work should begin before the formal EA process. Section 3.3 and Appendix E describe baseline information requirements. Available here: https://reviewboard.ca/process_information/guidance_documentation/guidelines

Category	Aspect
Population and Community	• population demographics (including in- and out-migration) • cost of living and income levels • housing statistics • family structure • household strengths and vulnerabilities • gender divisions • intersectionality [32] • psychosocial environment [33] • existing levels of noise, dust, vibration, light, traffic • vulnerable groups • health statistics and rates • crime rates • addiction rates
Human Health	• community health concerns and challenges • availablity of and access to health services • food security and food sovereignty • use of traditional medicines and foods • physical, mental, and social indicators of health, if available • health and safety of nearby residents, land users, and vulnerable populations
Culture, Way of Life, and Traditional Land Use	• places of cultural and spiritual importance • bonds to places (that is, place attachment) in the project area • cultural landscapes • local languages • local customs and beliefs • Indigenous worldviews • traditionally harvested species • traditional harvesting activities and their importance to the community • traditional land or water use (including past, present, and intended future types of uses) • heritage resources and sites in the project area (such as archaeological, historical, or burial sites, spiritual places, trails, special landscape features) described in an archaeological assessment report[34] or traditional land use study

[32]Intersectionality" here refers to how some community members might be in multiple social categories (like race, gender, sexual orientation, or age) and experience additional disadvantages or discrimination as a result.
[33]Such as people's ability to cope, levels of stress and anxiety, or feelings of safety of their environment.
[34]Proponents are encouraged to contact the Prince of Wales Northern Heritage Centre to obtain archaeological site data prior to completing these information requirements. Please refer to their *Guidelines for Developers for the Protection of Archaeological Sites in the Northwest Territories.*

Category	Aspect
Other Land Use	• recreational land or water uses (including user groups, types of uses) • other land or water uses (such as tourism, resource extraction, infrastructure corridors)

Infrastructure and Services	• status of social, educational, recreational, and physical infrastructure (including transportation, waste management, utilities)
	• availability and capacity of public services, including:
	  o social services
	  o health services
	  o education services
	  o emergency services
	• local businesses and media
	• cellular and internet capacity

Economy	• capacity to work in wage economy • employment statistics • labour force characteristics • levels of training and education (status and opportunities) • level of existing industrial development • levels and types of business activity • economic diversity • characteristics of the traditional economy (including components, participation rates, importance to community)

APPENDIX I – TABLE SUMMARIZING INTERACTIONS, POTENTIAL IMPACTS AND MITIGATIONS

Developers should use conceptual models (such as exposure pathways and impact models[35] - see example figure 8) to support and **illustrate their descriptions of how components of the proposed development could interact** with and affect components of the biophysical and human environments. Conceptual models clearly identify linkages and show interactions between project components and the environment.[36]

Developers should also **use tables to help identify and characterize potential interactions, impacts, and mitigation measures**. Tables should only be used as a summary of the details of descriptive text (with cross-references to more detailed information and associated management plans). Below is an example of a table that could be used to summarize potential project interactions with components of the environment, as well as an example of the identification of potential impacts, proposed mitigation measures and references to associated management plans (Table 3).[37]

Developers may choose to use a table such as the one below, provided as an example, to indicate which project components interact with which parts of the environment. Developers should also indicate which interactions they believe will be the strongest and should be the focus of the assessment.

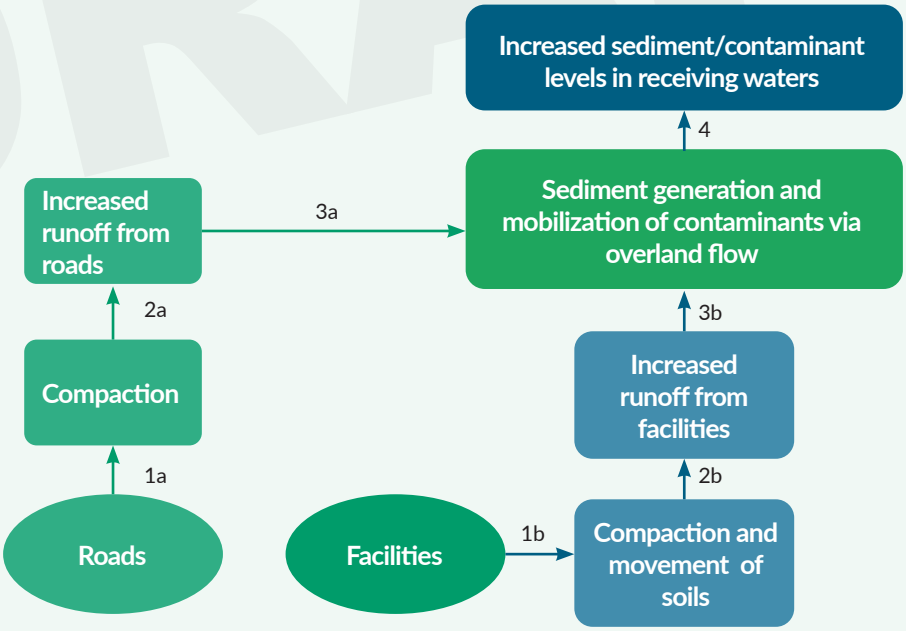


Figure 8: Example of a pathway model linking project components to water contamination

[35]The Canadian Environmental Assessment Agency defines impact models as: "A formal description of a cause-effect relationship that allows the assessing of various components of that relationship through the use of an Impact Statement, a Pathways Diagram, and the validation of linkages and pathways." See the Cumulative Effects Assessment Practitioners' Guide available at https://www.ceaa-acee.gc.ca.
[36]In addition to summarizing linkages, conceptual models can help identify uncertainties about interactions between project components and the environment, to allow for more focused investigation later in the EA process (such as in scoping, the TOR and the DAR) if necessary.
[37]For additional guidance on how to develop impact worksheets and tables for human environment components see Chapter 3 of the Review Board's *SEIA Guidelines*. Available at www.reviewboard.ca.

Table 3: Project Component Interactions

Project Component		Environmental Components	designated areas (e.g., Parks, Wildlife Protected areas)	ground stability and permafrost	surface and bedrock geology	sediment and soil quality	air quality	groundwater	surface water quality and quantity	fish and aquatic life
Construction	Road building			x	x	x			x	x
	Quarrying			x	x				x	x
Operation										
Closure										

Interaction and Impact(s)	Valued Component(s)
• Increased dust and sediment dispersal from vehicle traffic on site and access roads - Dust deposition on vegetation - Increased total suspended solids in nearby water systems - Suspended dust in work areas	• Air Quality • Water Quality • Fish Habitat • Vegetation

vegetation	wildlife and birds	other components	Human Components	wellbeing and community	population demographics	human health	traditional activities and harvesting	culture and way of life	heritage resources	economy and employment	infrastructure and services	other components
x	x						x		x	x	x	
	x						x		x	x		

Summary of Management Measure(s)	Associated Management Plan(s)
• Year-round dust suppression program to reduce dust dispersion • Sediment and run-off control measures along all roadways to limit sediment displacement • Year-round road and vehicle maintenance plans to ensure integrity and performance of roadways and equipment • Air and water quality monitoring and adaptive management plans to monitor and respond to changing conditions • Vegetation monitoring plan	• See Sections 3.1, 4.5, and 4.6 of the Air Quality Management and Monitoring Plan • See Sections 2.5 of the Equipment and Infrastructure Maintenance Plan • See Section 4.4 and 5 of the *Conceptual Water* Quality Monitoring and Management Plan • See Vegetation Monitoring Plan • See Sections 4 and 5 of the EA Initiation Package

APPENDIX J – GUIDANCE FOR MANAGEMENT PLANS, MONITORING PLANS, AND BASELINE DATA COLLECTION

Below is a list of some of the existing and more prescriptive guidance for management plans, monitoring plans and baseline data collection. Most of this guidance is available on the Mackenzie Valley Land and Water Board website.[38]

Waste management

- MVLWB's Guidelines for Developing a Waste Management Plan (2011)
- MVLWB's Water and Effluent Quality Management Policy (2011)
- MVLWB/GNWT Guidelines for Effluent Mixing Zones (2017)
- MVLWB Guideline for the Design, Operation, Monitoring, Maintenance and Closure of Petroleum Hydrocarbon-Contaminated Soil Treatment Facilities in the Northwest Territories (2020)
- GNWT's Guideline for Hazardous Waste Management (2017)[39]
- ECCC's Solid Waste Management for Northern and Remote Communities: Planning and Technical Guidance Document[40]

Spill management

- INAC's Guidelines for Spill Contingency Planning (2007)

[38] Available at: https://mvlwb.com/resources/policies-and-guidelines
[39] Available at https://www.enr.gov.nt.ca/sites/enr/files/resources/128-hazardous_waste-interactive_web.pdf
[40] Available at http://publications.gc.ca/collections/collection_2017/eccc/En14-263-2016-eng.pdf

Wildlife and wildlife habitat management

- GNWT's Wildlife Mitigation and Monitoring Plan Guidelines (in development)[41]

Early Planning

- IAA Guide to Preparing an Initial Project Description and a Detailed Project Description[42]

Aquatic effects management

- INAC's Guidelines for Designing and Implementing Aquatic Effects Monitoring Programs (2009)[43]
- MVLWB and GNWT's Aquatic Effects Monitoring Program Guidelines (2019)
- MVLWB/GNWT Method for Determining Available Winter Water Volumes for Small-Scale Projects (2020) (draft)
- MVLWB's Draft Guidelines for Developing Baseline Water Quality Monitoring Programs in the Northwest Territories (in development)

Closure and reclamation

- MVLWB/INAC's Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories (2013)
- MVLWB's Guidelines for Closure and Reclamation Cost Estimate for Mines (2017)

Additionally, applicants may also want to look at the Land and Water Board's Standard Water Licence and Permit Conditions Templates, since some of the standard conditions relate to potential mitigation measures and/or monitoring and response frameworks.

[41]Available at: https://www.enr.gov.nt.ca/en/resources
[42]Available at: https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/guide-preparing-project-description-detailed-project-description.html#_Toc17794696
[43]Available at www.mvlwb.com

Mackenzie Valley
Review Board

Mackenzie Valley
Environmental Impact Review Board
Phone (867) 766-7050
Fax: (867) 766-7074

www.reviewboard.ca

Published by the Mackenzie Valley Review Board, Yellowknife, NWT