



# 5.

## SEIA in Environmental Assessment

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## 5.1 Introduction

Environmental assessment (EA) is the second level of the EIA process in the Mackenzie Valley. A developer involved in an EA must ensure they have reviewed guidance materials about conducting SEIA.

## 5.2 SEIA Roles and Responsibilities During Environmental Assessment

### Role of the developer

The developer is responsible during EA to demonstrate to the Review Board that it is unlikely the proposed development will cause significant adverse impacts and/or significant public concern. Throughout the EA, the development description may be modified to mitigate potential impacts on valued socio-economic components.

Before submitting an application for preliminary screening, the developer decides which issues to examine, and the depth and level of SEIA effort. During EA, the Review Board determines what evidence and information is required.

The developer is responsible for ► collecting most of this evidence and information ► doing a *preliminary* prediction of impacts, and ► estimating the significance of these predicted impacts. In order for the Review board to make a final decision about the significance of predicted impacts and/or public concern, the developer must provide sufficient evidence and information, and explain the methods and sources used.

The Review Board issues a Terms of Reference (TOR) to the developer. The TOR are specific instructions that describe the level and focus of the EA; the TOR outlines the content of the Developer's Assessment Report (DAR).

The DAR is the main EA document produced by the developer. The Review Board may also ask the developer to provide additional information after the Review Board and other parties to the EA have reviewed and analyzed the DAR.

### Role of the Review Board

The developer's SEIA is one dimension of the larger EA. During EA, the Review Board is authorized to do the following:

- Determine the final "scope of assessment" and the final "scope of development" for the EA
- Assess the validity and weight of the parties' submissions and evidence
- Make a final determination of significance

The Review Board, on its own or on the behalf of other parties, may obtain further SEIA information by doing any or all of the following:

1. Assessing whether the SEIA in the DAR is adequate; the Review Board may issue a deficiency statement and recommend the developer conduct further SEIA if the DAR does not conform to the socio-economic sections of the TOR.
2. Issuing Information Requests (IRs) for further SEIA information to the developer and any other party to the EA. The Review Board issues IRs when there are information gaps or confusing information in the DAR, development description, and/or public submissions.
3. Accepting technical submissions from any party to the EA, including traditional knowledge reports and socio-economic studies.
4. Hiring experts to assist in the examination of evidence, conducting specific research, and/or determining the significance of impacts.
5. Holding public hearings where parties to the EA and other members of the public may speak with, and ask questions of, any other party.

## Roles of other parties to the EA

Communities and other potentially affected groups can comment on the developer's SEIA, submit complementary or contrasting evidence to the Review Board, and propose mitigation to manage, reduce and/or avoid impacts.

In fulfilling their socio-economic mandates, **government departments and agencies** can contribute directly to the SEIA by doing the following:

- Collecting, collating and reporting relevant socio-economic baseline data
- Providing expert information throughout the EA, including participating in scoping the assessment, reviewing and critiquing the DAR, and issuing technical reports about potential impacts on communities and regions, feasible mitigation, and the significance of residual impacts
- Submitting and answering Information Requests
- Implementing and monitoring approved mitigation measures

## 5.3 Scoping the Assessment

Scoping the EA is an activity that helps the developer and the Review Board identify the potential impacts of the proposed development on valued components. The developer is responsible for much of the scoping before preliminary screening begins (see Section 3.2).

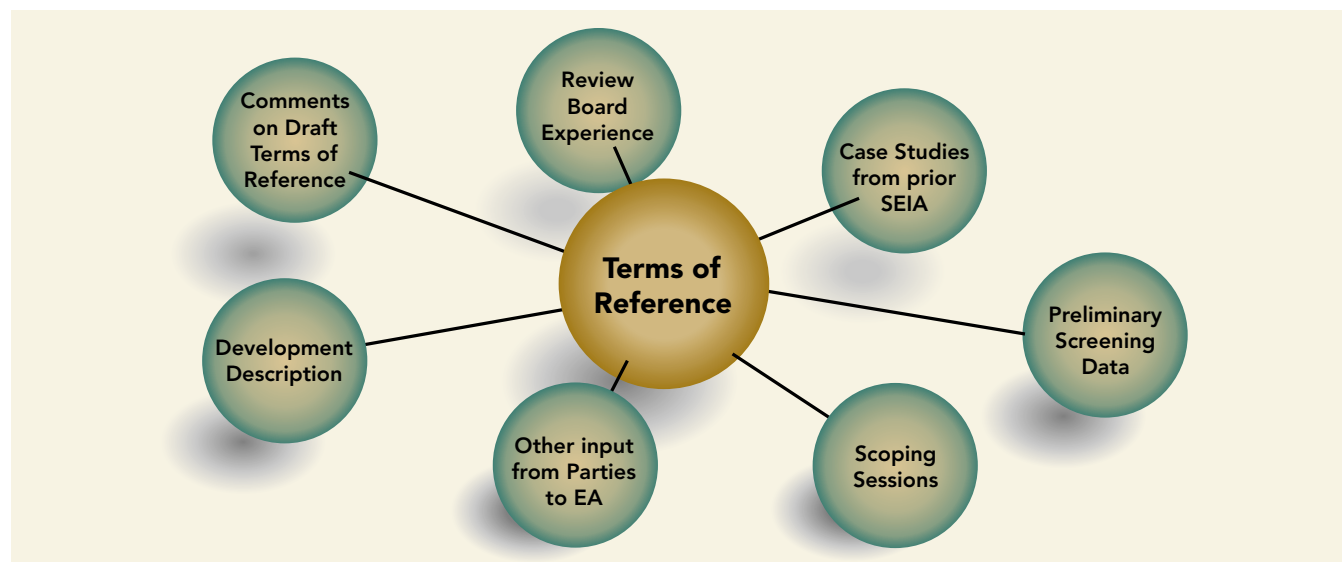
During EA, the Review Board is responsible for determining the following:

- The scope of assessment including the geographic and temporal boundaries
- The potentially affected groups that need to be included in the SEIA
- The issues for consideration

The Review Board determines the scope of assessment using the scoping tools and questions discussed in Section 3.2.

The Review Board produces the TOR based on the scoping sources illustrated in Figure 7. The focus of scoping the EA is broad and open-ended.

**FIGURE 7** Scoping the Assessment



Scoping narrows the EA focus to issues that:

- Were inadequately addressed during preliminary screening, or only identified during EA scoping
- Are relevant to at least some of the potentially-affected parties (and where only one community is likely to be impacted, the impact may only merit consideration in that locale)
- Are linked to components of the proposed development
- Primarily affect the geographical area(s) most likely to be measurably impacted
- Might cause significant adverse impacts or significant public concern

The Review Board may host scoping sessions to identify socio-economic issues or concerns that the EA should address. During these scoping sessions, participants have an opportunity to explain why they believe the proposed development may impact specific valued components. The Review Board may ask participants to prioritize identified issues.

Information gathered during the scoping session helps the Review Board decide which issues to address in the TOR. Before finalizing the TOR, the Review Board allows the public to comment on the draft TOR.

## 5.4 Terms of Reference

The developer's baseline condition profiles must address every valued socio-economic component identified in the "Description of the Existing Environment" section of the TOR.

The TOR instruct the developer on which socio-economic and cultural components and issues the DAR must address. The developer has flexibility when choosing the impact assessment tools.

The TOR are addressed to the developer but other parties to the EA should refer to the TOR for information about the EA. The TOR can help other parties define the scope of the issues to be assessed, and focus their attention on relevant Information Requests. The TOR provide useful information for technical reports, submissions and presentations to the Review Board during public hearings. (Parties that want to know how the TOR address SEIA

should consult the TOR of past EAs. These documents are on the Review Board's public registry at [mveirb.nt.ca](http://mveirb.nt.ca)).

Refer to Appendix E for further information about potential socio-economic information requirements in the TOR.

## 5.5 Review of the Developer's Assessment Report

Upon receipt of the DAR, the Review Board will complete a conformity check to ensure that the developer adhered to the TOR.

Once conformity is complete the Review Board and parties to the EA review the developer's baseline information, impact predictions and proposed mitigation. During the rest of the EA, parties may submit comments on the accuracy of impact predictions and preferred mitigation options in the form of technical reports, and/or at technical or public hearings. Parties to the EA are responsible for submitting their concerns or comments about the developer's chosen methods and findings to the Review Board.

If representatives from the community and/or government are concerned about the accuracy, depth, relevance, or indicator focus of the developer's baseline conditions profiles, impact predictions and/or proposed mitigation, they should make these concerns known to the Review Board.

The developer and other parties to the EA must consider the assumptions inherent to the methods, tools and models the developer used to determine mitigation. The developer must identify these assumptions in the DAR. The other parties should identify strategies for mitigating impacts, and implementing measures and mitigation in adaptive management programs. This applies even if the impact is related indirectly to the proposed development (e.g. if increased disposable income contributes to increased substance abuse and subsequent family violence, the substance abuse and family violence should not be justified as a matter of "choice").

The Review Board may ask the developer follow-up questions in the form of Information Requests, or request the developer use additional sources to clarify information. In addition, the feasibility and utility of the developer's mitigation may be subject to Information Requests. Throughout the EA, the developer may commit to additional mitigation suggested by parties. Any commitments made during the EA become part of the development description. The Review Board also analyzes the public record to make decisions about the adequacy of proposed mitigation.

## Methods for addressing impacts

### 1) Commitments from the developer and other parties to the EA

During EA, the need for further mitigation may be identified, and, subsequently, the developer, or in some instances governments, may commit to implementing the mitigation. The Review Board considers such commitments when making its final determination of significance. The developer's commitments made during

the EA become part of the refined project description. In many instances, these commitments often reduce the level of significance of identified impacts below the point where the Review Board is required to recommend additional mitigation measures.

### 2) Review Board measures

The Review Board identifies mitigation measures for any residual adverse impacts it considers likely and significant after the developer submits its proposed mitigation. The Review Board focuses on mitigation that addresses the underlying causes of significant impacts. Measures are designed to reduce the impact to an insignificant level.

### 3) Contractual agreements

There are different types of agreements that may be used for mitigating and monitoring socio-economic impacts. The agreement used depends on the size, location and industrial sector of the proposed development. They are not negotiated inside of the EA process; rather, they can be negotiated concurrent with the EA process or as a result of the EA.

**TABLE 12** Agreements to Mitigate and Monitor Socio-economic Impacts

Type of Agreement	Nature of Agreement	For More Information
<b>Socio-economic agreement</b>	Voluntary contract between the GNWT and the developer that addresses community well-being and economic opportunities; this can include monitoring	Industrial Initiatives Division, Department of Industry, Tourism and Investment, GNWT
<b>Impact benefit agreement (partly confidential)</b>	Voluntary contract between aboriginal communities and/or organizations, and the developer regarding compensation, employment, education, training, and business	Mineral Development Division, Indian and Northern Affairs Canada
<b>Access agreement (partly confidential)</b>	Required contract between the developer and aboriginal communities and/or organizations regarding access to or across lands owned by land claimant organizations within a settled land claim area.	Regional land claims organizations and/or other aboriginal organizations

The Review Board may find potential significant adverse impacts on valued social-economic (or cultural) components, and impose mitigation measures. As there are no regulatory instruments to enforce socio-economic measures, the implementation vehicle may be a socio-economic agreement (SEA). An SEA is usually negotiated between the GNWT and the developer. An SEA is a voluntary contract that addresses community well-being and economic opportunities; monitoring is included. The outcome of an EA can assist the parties choose the focus and content of an SEA.

Unlike SEAs, an impact benefit agreement (IBA) is usually negotiated in a process parallel to the EA. The Review Board cannot make the developer enter a voluntary contract such as an IBA. The developer is encouraged to include all non-confidential portions of accepted or pending IBAs in its DAR or subsequent EA submissions. This information can assist the Review Board in identifying issues that are no longer outstanding.

The Review Board can only consider proposed mitigation for impacts based on evidence in the public record. The developer and other parties are encouraged to provide the Review Board with as much non-confidential information as possible about IBAs in its submissions during EA; this information can assist the Review Board in determining whether the proposed mitigation is adequate.

#### 4) Suggestions (non-binding)

Review Board suggestions are often used to provide guidance on dealing with outstanding issues at the end of an EA when no significant impacts are identified but it is desirable for the parties to mitigate an impact. For example, the Review Board can suggest opportunities for the developer, and responsible government authorities, to work cooperatively with potentially affected parties on choosing socio-economic mitigation. Suggestions do not have the legal weight of a Review Board measure.

### 5.6 Determining Significance

The Review Board, when making its final determination of significance about biophysical impacts, answers the following question: *“Is the impact, in the Review Board’s opinion, likely to occur, adverse in nature, and significant enough to require mitigation?”*

The Review Board bases its determination on evidence in the public record, and goals, standards, guidelines and/or defined limits of manageable change. When making its determination of significance, the Review Board may consider the questions in Table 13.

**TABLE 13** Determining Significance in SEIA

Significance Factor	Questions the Review Board May Consider
Nature of impact	<ul style="list-style-type: none"> <li>Does the impact threaten a valued socio-economic component?</li> <li>Is the valued socio-economic component sensitive to change (e.g. impacts on family structure in a close-knit community may be more significant than pressures on physical infrastructure)?</li> </ul> <p><i>Understanding the nature and the pathway of the impact makes it easier to prescribe focused and effective mitigation.</i></p>
Magnitude	<ul style="list-style-type: none"> <li>What is the magnitude or degree of change the impact will likely cause?</li> <li>Is the expected change large and rapid, or slow and/or minor?</li> <li>How much additional magnitude will the impact have compared to expected regular trends? For example, do existing social pressures make the community vulnerable?</li> <li>Will any identified thresholds of manageable change (as expressed in plans, strategies, and goal statements) be breached?</li> <li>Does the predicted change exceed the existing capacity of the community to absorb the change?</li> </ul>

*Continued...*

**TABLE 13** Determining Significance in SEIA *Continued*

Significance Factor	Questions the Review Board May Consider
<b>Trade offs between adverse and beneficial impacts</b>	<ul style="list-style-type: none"> <li>• Will beneficial impacts offset the predicted adverse impact?</li> </ul> <p><i>Significance determinations need to consider the degree to which some adverse impacts can be tolerated if there are beneficial impacts, too.</i></p>
<b>Capacity to manage</b>	<ul style="list-style-type: none"> <li>• Is the socio-economic impact manageable for those responsible for protecting the valued socio-economic component?</li> <li>• Has effective mitigation been committed to or merely identified during EA?</li> <li>• How much will it cost to mitigate the impact? Who pays? Is the net benefit of mitigation more than the benefit of avoiding the impact altogether?</li> <li>• What is the capacity for government, communities, and the developer to manage the impact?</li> </ul>
<b>Duration and frequency of occurrence</b>	<ul style="list-style-type: none"> <li>• Is the socio-economic impact associated with short-term or long-term impacts?</li> <li>• Will there be wide fluctuations in impact directionality that disrupt the community over time (i.e. boom-and-bust periods)?</li> </ul>
<b>Geographic area and population distribution</b>	<ul style="list-style-type: none"> <li>• How many communities will be impacted?</li> <li>• How extensive is the geographical range of the impact?</li> <li>• Are there particularly sensitive areas that might be impacted?</li> <li>• Are there regional “winners” and “losers”?</li> </ul> <p><i>The number of people impacted is not the only measure of significance; extremely adverse impacts on individuals merit attention and mitigation as well.</i></p>
<b>Likelihood of occurrence</b>	<ul style="list-style-type: none"> <li>• Is the impact likely?</li> <li>• How was the impact predicted? How certain is this prediction?</li> <li>• How certain are the predictions of severity and the ability to manage impacts, given mitigation proposals in place?</li> </ul> <p><i>If the predictions are uncertain, the Review Board will use the “Precautionary Principle.”</i></p>
<b>Impact equity</b>	<ul style="list-style-type: none"> <li>• Are certain groups more impacted than others?</li> <li>• Are the more impacted groups more vulnerable to change (e.g. are they already in a weaker socio-economic condition)?</li> </ul>
<b>Public concern</b>	<ul style="list-style-type: none"> <li>• Is there a high level of public concern associated with the impact?</li> </ul> <p><i>Perceived risk, as expressed by community members, can be as important as quantitative predictions. Assessing public concern can be perceived as subjective. Therefore, it is critical that the conclusions about public concern are justifiable. Where possible, it is useful to link public concerns directly to anticipated socio-economic impacts.</i></p>
<b>Level of existing impacts prior to development-cumulative SEIA</b>	<ul style="list-style-type: none"> <li>• Is this impact a “stand alone” one, or will it lead to additional impacts or combine with other existing and potential future impacts to become a cumulative impact?</li> <li>• Does the proposed development add unmanageable impacts to a community already in turmoil?</li> <li>• What defines an unacceptably significant additional input to a socio-economic impact, when the threshold of manageable change has already been passed?</li> </ul> <p><i>The Review Board will seek a broad understanding of the local and regional socio-economic environment and context when answering this question.</i></p>

The Review Board considers the following before making its final determination of significance:

1. Is the impact adverse in nature? The Review Board analyzes the public record to determine whether impacts are beneficial or adverse, and whether beneficial impacts may contribute to adverse socio-economic consequences. For example, a rapid influx of cash into a small community is a beneficial economic impact that in some cases can lead to adverse impacts such as inflation, in-migration pressures, and increasing access to drugs and alcohol. The Review Board may also examine whether an impact beneficial to some groups may actually be adverse for others.
2. Is the identified potential adverse impact **likely**?
3. Is the likely adverse impact **significant**? The Review Board determines if the impact is significant enough to require mitigation measures be implemented in addition to those committed to during the EA.

*(If the Review Board answers yes to each of the three questions above, the impact requires mitigation.)*

4. **Can mitigation measures** reduce the likely adverse significant impact below the level of significance being identified?  
  
If the Review Board answers no to this question, the Review Board will recommend the proposed development be rejected or referred to an EIR.  
If mitigation is identified that would reduce the significance of the impact, the Review Board will likely recommend that the proposed development proceed to the regulatory phase if the mitigation is implemented and monitored (Section 128(1) (b) (ii) of the MVRMA).  
The challenge is that while regulatory agencies and other responsible organizations must adhere to any mitigation measures, there are few socio-economic terms or conditions that can be placed in a regulatory authorization. Responsible government authorities may be required to exercise their socio-economic protection mandates to implement such measures regardless of the lack of existing regulatory authorization.

## Choosing appropriate mitigation

The Review Board may consider the following when determining if mitigation is appropriate/adequate:

- Will the proposed mitigation protect the social, economic and cultural well-being of the residents and communities of the Mackenzie Valley?
- Will the mitigation eliminate or prevent an impact, reduce the risk of and/or severity of the outcome, or merely compensate for the loss? Mitigation should prioritize finding appropriate ways to reduce or avoid the adverse impact.
- What alternative mitigation is available and what is the rationale for the proposed mitigation? Do the parties agree on the proposed mitigation?
- Is the mitigation reliable enough to effectively reduce or avoid the impact for which it was intended? What is the level of certainty the mitigation will be effective? Will the mitigation reduce impacts below a recognized threshold of manageable change?
- Is implementing the mitigation technically realistic and economically feasible to implement?
- Does the mitigation meet the standard of impact equity? Does it specifically address the needs of the most affected groups, rather than the general needs of local, regional and/or territorial populations? If not, who is excluded and why?
- Does the mitigation have an adaptive management mechanism to deal with unforeseen impacts or varying degrees of impact?
- Are there feasible alternatives to the components of the proposed development that might avoid adverse impacts? Have the developer and other parties to the EA considered these alternatives fully? Changes to work scheduling or the timing of development stages are examples of alternatives that could be considered.

The Review Board's options are limited when it finds a significant impact it cannot mitigate. In such cases, the proposed development is rejected or forwarded to an EIR. Parties that want the proposed development to move forward should commit to mitigating identifiable significant adverse impacts before the EA public record closes.

## 5.7 Report of Environmental Assessment and Reasons for Decision

Once the Review Board completes its deliberations, the Review Board issues the Report of Environmental Assessment and Reasons for Decision (REA). The overall recommendation of the Review Board is defined by section 128 of the MVRMA. (For further information, see the *EIA Guidelines*). The number and type of measures the Review Board may recommend are unlimited.

SEIA is just one component of the larger EA process; the Review Board bases its final recommendation on an assessment of all impacts related to the proposed development, not only socio-economic impacts.

The Review Board submits the REA to the Minister of Indian and Northern Affairs (the federal minister) who distributes the report to other responsible ministers. The Review Board also submits REAs about proposed oil and gas development to the National Energy Board (NEB). The federal and responsible ministers decide whether to accept the REA. If the federal and responsible ministers accept the REA, the Review Board's measures will be included as terms and conditions in the permits and licenses for the approved development.

If the ministers decide to initiate a “consult-to-modify” process, the Review Board participates to ensure any proposed changes to its social or cultural impact measures comply with the original intent of the Review Board's measure. The lack of a legislated instrument to implement some types of mitigation does not preclude the Review Board's determination of significance – and subsequent identification of mitigation measures.

## 5.8 Applying Mitigation and Monitoring

Various levels of government, affected communities, and the developer can all have a role in monitoring whether the mitigation measures are implemented and effective.

The Review Board must be informed about which measures are effective and which are ineffective; this feedback helps the Review Board improve future EAs. Other parties, especially communities, the developer and government, should identify shortcomings in mitigation measures and adapt accordingly. A measure is only as good as its outcome.

Monitoring the implementation of mitigation allows the Review Board to determine the effectiveness of mitigation to achieve the intended outcome. Monitoring must link to the specific predicted impacts through appropriate indicator identification. For example, it makes little sense to monitor employment rates if access to employment was not identified as a potential impact during the EA.

The monitoring of socio-economic impacts should be structured to identify discrepancies between predicted and actual impacts on the human environment. It should also identify when “thresholds of manageable change” have been breached. When change exceeds a threshold the monitoring organization may require adaptive management. Good monitoring requires adaptive mitigation mechanisms even where the individual development is not the sole contributor to an adverse change.

EA decisions can facilitate effective monitoring in several ways. The Review Board may include measures requiring regular communication between regulators, the developer and communities e.g. an annual meeting to assess the progress of commitments and measures toward identified goals. The Review Board may also require a monitoring program as mitigation, and can attach specific thresholds as warranted.

## Notes:

[illegible]