



Mackenzie Valley
Environmental Impact
Review Board

Gahcho Kué Diamond Mine
Environmental Impact Review

Terms of Reference
for the
Environmental Impact Statement

Draft

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1 Introduction

1.1 Purpose

This terms of reference provides instructions to the developer for preparing an environmental impact statement for the environmental impact review (EIR) of the proposed Gahcho Kue diamond mine. The document sets the scope of the development under review, as well as that of the review itself. It provides the developer with instructions on the assessment methods to be used, the type of information that is required, and the presentation of this information.

1.2 Regulatory History

DeBeers Canada Inc. applied to the Mackenzie Valley Land and Water Board (MVLWB) for a type A Land Use Permit (MV2005C0032) and a type A Water Licence (MV2005L2-0015) on November 24, 2005. The MVLWB deemed the applications complete on December 1, 2005 and subsequently notified the MVEIRB that it had started a preliminary screening. On December 22, 2005, Environment Canada referred this development to environmental assessment before the MVLWB finalized its screening report. In Environment Canada's opinion the proposed development might have significant adverse impacts on the environment.

The MVEIRB initiated the environmental assessment and notified the developer on January 4, 2006. Following scoping workshops in Yellowknife, Dettah, Lutsel K'e, Fort Resolution, and Behchoko, as well as scoping hearings in Yellowknife during March and April of 2006, the Review Board determined that the proposed development is likely to be a cause of significant public concern. Consequently the Review Board ordered an environmental impact review (EIR) of the proposed Gahcho Kué project pursuant to *Mackenzie Valley Resource Management Act (MVRMA)* section 128(1)(c) on June 8, 2006.

Following the Review Board's order that an environmental impact review be conducted, the developer applied for a judicial review to the NWT Supreme Court on July 28, 2006. The Supreme Court heard the application on November 22, 2007 and rendered its decision on April 2, 2007 upholding the Review Board's EIR order. The Review Board notified potential parties and the public of the continuation of the environmental impact review on April 20, 2007.

1.3 Approach

Prior to ordering this EIR the MVEIRB conducted a technical scoping workshop in Yellowknife and community scoping workshops in Dettah, Lutsel K'e, Fort Resolution and Behchoko, as well as technical and community scoping hearings in Yellowknife. The purpose of this extensive scoping exercise was not only to identify all the issues, but also to prioritize them and, if possible, narrow the scope to the most important ones. The

public record for the environmental assessment indicates that the parties to the assessment were of the view that all of the issues are important and that not enough information was available to allow excluding any from the scope.

The public record also indicates that particular aspects of the proposed development and of the environment require higher levels of effort than others. Based on the evidence presented during the environmental assessment the MVEIRB's *Report of Environmental Assessment* defines seven 'key lines of inquiry' and fourteen 'subjects of note' (MVEIRB 2006).

The Panel adopts the key lines of inquiry as areas of the greatest concern that require the most attention during the EIR and the most rigorous analysis and detail in the EIS. Key lines of inquiry may encompass multiple issues raised during scoping and may overlap. Their purpose is to ensure a comprehensive analysis of the issues that resulted in the significant public concern identified by the MVEIRB. Issues included in, or relevant to, a key line of inquiry may be labelled category one issues.

Subjects of note were defined by the Review Board as areas that "stand out from the long list of issues and will require serious consideration" (MVEIRB 2006). Accordingly a meaningful and comprehensive analysis is expected, but not the same degree as for the key lines of inquiry. Subjects of note may also encompass more than one issue and overlap to some extent. Any issue included in, or relevant to, a subject of note may be viewed as a category two issue.

Any issues not within a key line of inquiry or subject of note may be labelled category three issues. These issues still require a meaningful enough analysis to show that they indeed are not likely to be cause for significant impacts on the environment.

Traditionally environmental impact assessment separately analyzes and predicts impacts for each individual valued component. This western scientific approach is well suited for analysis by government experts and the review Panel's own experts. It also facilitates the production of the environmental impact statement by a group of expert advisors to the developer. On the other hand, the interconnectedness of the natural and human environments, as evidenced by the key lines of inquiry established during the environmental assessment, makes this separation into wildlife, air, social, cultural issues, etc. problematic. A more holistic approach is also more open to analysis by aboriginal communities and traditional knowledge holders.

Consequently, the review Panel requires the environmental impact statement to report impact predictions, significance determination, and other analysis in two separate ways. Once as an overview analysis for each key line of inquiry and subject of note, and once in the conventional component specific format. Each key line or subject must be addressed in a comprehensive manner that allows the Panel and the parties to review all relevant information without having to move back and forth between various sections of the EIS. In essence the relevant EIS sections must be stand alone sections. Similarly, cumulative effects analysis and traditional knowledge should be addressed with each individual issue but also require a more centralized big picture treatment.

While this approach will result in some duplication, the Panel is of the opinion that only this approach will be fair to all parties to the environmental impact review.

1.4 Definitions

The definitions in sections 3 and 111 of the MVRMA apply, as do those in the MVEIRB's *EIA Guidelines*. In addition, the following terms, when used during this environmental impact review, are defined as follows:

Community

Throughout this EIR the term community does not only refer to a settlement, town, or village but also to groups of people that form a 'community' without necessarily residing in a specific location.

Cumulative Impacts

Cumulative impacts, or cumulative effects, are the impact on the environment which results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions (MVEIRB 2004). Cumulative effects may stem from activities related to this development, and activities related to other developments that, by themselves, are not likely to have a significant impact, but that added together may result in a significant overall impact. It is important to note that in the review Panel's opinion reasonably foreseeable future developments are not limited to those for which an application for a permit, licence or other authorization has already been made.

Sustainability/Sustainable Development

The term sustainable development refers to development that meets the needs of the present without compromising the ability of future generations to meet their own needs. In assessing the sustainability of the proposed development the Panel will be guided by the principles set by section 115 of the MVRMA. A development's contribution to sustainability can be evaluated on the basis of:

- the extent to which a project makes a positive overall contribution towards environmental, social, cultural and economic sustainability;
- how the planning and design of a project take into account its effects on achieving sustainable development;
- how monitoring, management and reporting systems have incorporated indicators of sustainability; and
- the views of stakeholders and participants in the EIR process.

Traditional Knowledge

The MVEIRB's *Guidelines for Incorporating Traditional Knowledge in Environmental Impact Assessment* describe traditional knowledge as:

- 1) *Knowledge about the environment: This is factual or “rational” knowledge about the environment. It includes specific observations, knowledge of associations or patterns of biophysical, social and cultural phenomena, inferences, or statements about cause and effect, and impact predictions. All are based on direct observation and experience, shared information within the community and over generations.*
- 2) *Knowledge about use and management of the environment: This is the knowledge that people have about how they use the environment and about how they manage their relationship with the environment. Examples include cultural practices and social activities, land use patterns, archeological sites, harvesting practices, and harvesting levels, both past and current.*
- 3) *Values about the environment: This knowledge consists of peoples’ values and preferences, and what they consider “significant” or valued components of the environment, and what they feel is the “significance” of impacts on those valued components. Aboriginal spirituality and culture plays a strong role in determining such values. This element of traditional knowledge includes moral and ethical statements about the environment and about the relationships between humans, animals, and the environment; the “right way” to do things.*

1.5 Legal Requirements

This environmental impact review is subject to the requirements of Part 5 of the MVRMA. It is also subject to the MVEIRB’s Rules of Procedure, which the Panel adopted as its own. The review process is further described in the MVEIRB’s *Environmental Impact Assessment Guidelines*. Copies of these documents can be obtained by contacting the Review Board or at www.mveirb.nt.ca.

1.6 Document Overview

Section 2 of this document defines the scope of the development under review, as well as the scope of the impact review itself. Section 3 identifies general information requirements including a development description and assessment methods. Instructions for the analysis of key lines of inquiry are provided in section 4, while section 5 deals with subjects of note. Section 6 lists all issues raised during the scoping exercise. Finally section 7 lists the deliverables.

2 Scope

2.1 Development

The scope of the development under review includes the principal development, which is an open pit diamond mine, and any activities or structures associated with the principal development. Table 2-1 provides a brief overview of the development components.

Phase	Components/Activities
Construction	Construction of mine facilities and associated works;
	Construction of dikes for dewatering of lake and diversion structures to lessen inflows to the watershed;
Mining Operations	Removal of waste rock, kimberlite and mine water from the open pits, including the use of explosives;
	Processing of ore to extract diamonds;
	Storage and handling of processed kimberlite;
	Storage and handling of waste rock;
	Removal of diamonds from mine site;
Water Management	Dewatering of Kennady Lake;
	Handling of mine water;
	Surface water management;
	Removal of water from Kennady Lake for use at the mine site, both by mining personnel and for mining operations, including dust control;
	Water treatment and sewage disposal;
Transport and Surface Structures	Use of the current Tibbitt-Contwoyto winter road;
	Construction of an access road from Tibbitt-Contwoyto winter road to development site;
	Construction/Upgrading of airstrip and air transport activities;
	Solid waste management and containment areas;
	Surface structures, including power plant, sewage and water treatment plants, camp facilities, roads, and ore processing plant;
Closure and Reclamation	Closure and reclamation of the mine site.

Table 2-1: Development Overview

The development scope is based on the *Application Report* (DeBeers, 2005) to the Mackenzie Valley Land and Water Board. The review Panel may alter the scope of the development and include any alternatives to the development, or to individual development components, proposed during the review. The scope of development is not limited to the specific methods or means for carrying out the development described in the *Application Report*, but includes alternative means to achieve the same ends.

2.2 Impact Review

The scope of the environmental impact review is informed by the requirements of the MVRMA, the MVEIRB's *Report of Environmental Assessment* of the Gahcho Kue project (MVEIRB, 2006), as well as commonly recognized good practices in environmental impact assessment.

2.2.1 MVRMA Requirements

The *MVRMA* defines an impact on the environment to mean “any effect on land, water, air, or any component of the environment, as well as on wildlife harvesting, and includes any effect on the social and cultural environment or on heritage resources” (*MVRMA* section 111(1)). Moreover, the *MVRMA* provides the review process with guiding principles, including “having regard to”:

- the protection of the environment from significant adverse impacts;
- the protection of the social, cultural and economic well-being of residents and communities in the Mackenzie Valley; and
- the importance of conservation to the well-being and way of life of the aboriginal peoples of Canada (*MVRMA* section 115).

Sections 117(2) and 117(3) of the *MVRMA* list a number of factors the review Panel must consider in the environmental impact review. These include:

- impacts on the environment, including impacts of malfunctions and cumulative impacts, and their significance;
- comments by members of the public;
- the need for mitigative or remedial measures;
- the purpose of the development,
- alternative means of carrying out the development,
- the need for follow up programs; and
- the capacity of renewable resources to meet future needs.

Sections 134(1) and 134(2) of the *MVRMA* outline a process for the impact review that includes the submission of an environmental impact statement by the developer, an analysis of the development by the review Panel, as well as a report with the Panel's conclusions and its recommendation whether the proposal should be approved.

Following these requirements and guiding principles, the scope of this environmental impact review includes all potential impacts on the bio-physical and the human environment from the development, by itself and in combination with other past, present and reasonably foreseeable future developments. The temporal scope of the review ranges from pre-construction activities to construction, operation, closure, and post closure until reclamation is achieved.

2.2.2 Report of Environmental Assessment

The MVEIRB's *Reasons for Decision and Report of Environmental Assessment for the DeBeers Gahcho Kué Diamond Mine, Kennady Lake, NT* (REA) provides a description of the MVEIRB's effort to scope the issues for this development, including technical and community workshops, as well as public hearings. The REA lists all issues raised during the scoping in the form of issues diagrams. Moreover, the REA provides seven key lines of inquiry and fourteen subjects of note. The former represent top priorities that will require the most attention during the review, while the latter are less critical but still require careful consideration beyond that required for other issues. Key lines of inquiry and subjects of note generally cover more than one issue raised during the scoping workshops and often overlap as well.

The key lines of inquiry and subjects of note are the results of efforts to prioritize issues during scoping. Parties to the environmental assessment requested that all issues raised, even if not covered by any key line or subject, be included in the scope of the assessment. Consequently all issues listed in the REA and in the corresponding issues tables provided in this terms of reference are within the scope of the environmental impact review. The review Panel accepts the prioritization of issues prepared by the Review Board and requires the environmental impact statement to emphasize, and provide more detailed information for, key lines of inquiry and subjects of note, as outlined below.

The REA also outlines the geographic extent for which further study is required. The geographic scope of the environmental impact review follows this outline. For potential impacts on caribou it includes the range of any potentially affected herd with focus on the vicinity of the mine site, the access road from Mackay Lake, and the Tibbitt to Contwoyto Road up to the start of the access road at Mackay Lake. Observations from existing diamond mines should be used to establish the vicinity of the mine site as the area within which a caribou response to the development may be observed.

For impacts on fish and other aquatic organisms it includes any water body crossed by the Tibbitt to Contwoyto Road and the Mackay Lake access road, Kennady Lake, and all water bodies downstream of Kennady Lake to Great Slave Lake. In terms of cultural and social impacts, the area to be studied includes (but is not limited to) all communities in the Tlicho and Akaitcho regions. Communities in the T'licho and Akaitcho regions include first nations and metis residing in any of the cities, towns or settlements in the respective regions.

2.2.3 Summary

Table 2-1 presents a brief summary of the initial scope of this environmental impact review. This is the scope to be addressed by the environmental impact statement. Subsequently, the review Panel may alter the scope of the review as more information becomes available.

<i>geographic extent</i>	Caribou ranges; Tibbit to Mackay Lake winter road, Mackay Lake access road and all water bodies crossed; Kennady Lake and environs; water bodies downstream of Kennady Lake to Great Slave Lake; T'lcho and Akaitcho regions.
<i>temporal extent</i>	From pre-construction to reclamation.
<i>Development components</i>	All (Note: the Panel is reviewing the entire development, not only components that require a permit, licence, or other authorization; alternatives to methods proposed in application report are included as well.)
<i>environmental components</i>	All identified in EA with emphasis on key lines of inquiry and to a lesser extent subjects of note.

Table 2-1: Scope of Review Summary

3 General Information Requirements

This section outlines information requirements regarding the developer, the description of the proposed development and the existing environment, the methods used for predicting impacts, and the presentation of information in the environmental impact statement. If, at any time, the developer is unsure about the requirements of this ToR or the nature of the information requested, the developer should contact the Panel office immediately in writing to seek clarification.

3.1 *Development and Environment Description*

3.1.1 Developer

DeBeers Canada should provide the following information regarding the developer and its partners:

- the ownership of the proposed development and its organizational structure, including the division of responsibilities between the partners to the Gahcho Kué project;
- a summary the history of the developer, including its partners, in Canada and the Northwest Territories;
- a record of environmental performance of the company, its partners, and its contractors; and
- a description of the relationship between DeBeers Canada and its contractors and subcontractors, including how the company will ensure that the contractors and subcontractors will be responsible for, and honour, commitments made by DeBeers Canada.

3.1.2 Development Description

While the Application Report contains a general description of the development, the developer should provide a comprehensive development description, making the EIS a stand alone document. More detail than provided in the *Application Report* may be required for some development components. Enough detail must be provided for the review Panel to adequately consider the potential impacts of the development and to adequately address the factors to be considered in the impact review (see section 2.2).

In particular, the developer is requested to provide the following additional information:

- ***Rationae for the need of the development:*** The rationale should not only contain the developer's own motivation but address the need for the proposed development from the point of view of the potentially affected and/or benefiting communities and the NWT in general. The analysis should include a discussion of the proposed timing of the development in relation to other ongoing or

proposed developments, such as existing diamond mines and the Mackenzie Gas Project.

- ***Alternatives to the development:*** Describe any means other than the proposed development by which the developer could achieve its overall goal, or by which the NWT and its residents could achieve comparable benefits.
- ***Alternative means for carrying out the development:*** The EIS should provide a detailed analysis of alternatives to individual development components or activities, including:
 - energy sources and energy conservation measures;
 - disposal methods (e.g. alternatives to back filling of pits, alternative designs for the waste rock pile, alternatives to the use of two on-land PKC facilities);
 - alternative transportation methods to reduce impacts along the ice road route (e.g. use of airships);
 - alternatives to the conventional two week staff rotation; and
 - other alternatives that the developer did considered or may be considering.

When discussing alternatives the EIS should also provide an overview of how environmental conditions have informed the project design. The EIS should not limit alternative means for carrying out the development to alternatives the developer considers feasible. The EIS should report all alternatives the developer considered during the project design and dismissed, including reasons for dismissal. Where appropriate video presentations, maps, aerial photographs, etc. should be used to facilitate understanding of the proposed development by all parties.

3.1.3 Existing Environment Description

A detailed description of the existing environment is required, including current status and trends for all valued components. This description should contain sufficient detail for the parties and the Panel to thoroughly assess the potential direct and cumulative impacts from the proposed development. The questions, requests for information, or directions to predict impacts in section 4 to 6 provide guidance on the type of information and the level of detail that is required.

The developer is encouraged to contact individual parties to the EIR directly to inquire about specific information needs.

3.2 Assessment Methods and Presentation

The developer is strongly encouraged to use the MVEIRB's *Socio Economic Impact Assessment Guidelines* to help prepare the socio-economic impact assessment (SEIA). Given the size of the proposed development and the public concern leading to the environmental impact review, a comprehensive SEIA is required.

3.2.1 Impact Predictions

The exact methods for predicting impacts are left to the developer and its advisors. The environmental impact statement must, however, explain and justify the methods used to predict potential impacts of the development on the environment.

In describing methodology:

- explain how scientific, engineering, traditional, and other knowledge was used to describe the existing environment, evaluate potential impacts and reach conclusions;
- identify and justify any assumptions made;
- document all models and studies so that the analyses are transparent, and, where appropriate, reproducible;
- identify which studies included the assistance of communities, who was involved, and how participants were selected;
- specify data collection methods and report the uncertainty, reliability and sensitivity of the methods used to reach conclusions;
- support analyses, interpretation of results and conclusions with reference to appropriate literature and relevant references;
- specify and reference sources for any contributions based on traditional knowledge; and
- identify all proposed mitigation measures as well as the residual impacts.

Methods used to describe the environmental conditions and to identify and measure impacts on the environment should be consistent with high standards and best practice in the relevant subject area. Methods used to predict how the environment could change the development should also be explained.

3.2.2 Significance Determination

The Panel will ultimately reach a conclusion on the significance on any impacts. Nonetheless, the developer should report its own view on the significance of impacts, using the following criteria:

Direction While the main focus of the impact review is to assess whether the development is likely to cause significant adverse

impacts on the environment or be cause for public concern, the developer is encouraged to report anticipated positive changes. These may be used by parties or the Panel to evaluate the overall impact of the development.

magnitude Magnitude refers to the degree of change that may be caused, e.g. amount of water diverted. Where possible magnitude should be reported in absolute and in relative terms.

Likelihood Likelihood refers to the probability of the impact occurring.

Geographical extent Geographical extent refers to the area affected. In using this criterion “locational intensities” should be considered as well, i.e. where an impact may affect various areas to differing degrees, separate analysis may be required. For example, downstream effects may be separated into several geographic areas of high, medium, low magnitude, rather than reporting an average impact on a large area.

Duration Both, the duration of individual events (e.g. waste water discharges), and the overall time frame during which the impact may occur (e.g. during construction, operation, and closure) must be considered. In addition, the length of time effects will last should be reported and considered.

Frequency The frequency of impacts and events causing impacts should be considered, as well as the length of time between occurrences.

Reversibility The reversibility of any impacts should be considered not only in terms of whether the impact is reversible at all but also in terms of how much time will be required for the affected environmental component to recover.

In terms of the human environment the manageability of impacts may be considered rather than their reversibility. Where appropriate the evaluation should also identify the resources that may be diverted to facilitate recovery.

Nature of the effect Nature of the effect refers to the type of the impact as well as the nature of the affected environmental component. For example, the catastrophic failure of a dyke that has the potential to kill humans would be considered significant at a relatively low likelihood, although other criteria, such as frequency, geographic extent and even magnitude (only a small portion of the valued component may be affected) may not indicate significance. Generally an impact on an extremely valued component should trigger significance at

relatively low magnitude, duration, and likelihood.

3.2.3 Uncertainty Analysis

Any impact prediction contains an amount of uncertainty, which may be related to the limits of understanding of natural systems or the likelihood of the occurrence of future events (e.g. an unusually warm winter). The environmental impact statement should provide a description of the uncertainties associated with each prediction or analysis. Similarly, when making a significance determination the impact statement should report the confidence with which this determination can be made. The uncertainty analysis should include a description of the confidence in underlying assumptions, models, data sources, etc.

Furthermore, during scoping several parties expressed the view that mitigation measures proposed in previous diamond mine assessments in the Mackenzie Valley did not adequately protect the environment and did not result in the anticipated mitigation. The EIS must address and verify the success of any previously employed mitigation measure it proposes.

3.2.4 Valued Components

Conventionally environmental impact assessment uses valued components (also referred to as valued ecosystem components) to focus impact predictions on important components of the bio-physical and human environment. Individual species or societal goals are commonly selected as valued components. The environmental assessment of the Gahcho Kué project already identified numerous potential valued components, listed in the various issues diagrams in the REA and provided in the issues tables later in this document. The key lines of inquiry involve highly valued components. Similarly the subjects of note provide important information on the selection of valued components.

The developer should use the issues identified during the environmental assessment as the basis for the selection of any valued components. Both, key lines of inquiry and subjects of note typically cover more than one valued component in the traditional sense. If using individual valued components the developer must ensure sufficient breadth of components to adequately assess impacts in relation to all key lines of inquiry and subjects of note. Where key lines of inquiry or subjects of note are not used as valued component in their entirety, the environmental impact statement must provide a rationale for doing so. The developer may select additional valued components not identified in the REA.

3.2.5 Traditional Knowledge

The Panel will rely on both traditional knowledge and western scientific knowledge in its deliberations. In the Panel's view traditional knowledge holders are experts in their own right and should be treated with the same respect as scientific experts.

The developer is encouraged to apply the MVEIRB's *Guidelines for Incorporating Traditional Knowledge in Environmental Impact Assessment* wherever applicable when preparing the environmental impact statement. As a minimum the environmental impact statement is required to:

- provide a summary of efforts made to collect relevant traditional knowledge;
- explain how traditional knowledge influenced project design, impact predictions, and mitigation measures;
- provide a rationale where traditional knowledge was not used in impact predictions; and
- provide a plan for future cooperation between the developer and traditional knowledge holders covering the full temporal scope of the EIR.

3.2.6 Alternatives

Section 3.1 of these terms of reference requires the description of alternatives to the development and of alternative means to carrying out the development. The environmental impact statement should use the development as described in the *Application Report* as the base line case for predicting impacts and determining significance of alternatives. Development alternatives may be analyzed in terms of how they would alter these impacts, where separate impact predictions are not feasible.

3.2.7 Follow-Up Programs

The MVRMA defines a follow up program as “*a program for evaluating*

- (a) the soundness of an environmental assessment or environmental impact review of proposal for a development; and*
- (b) the effectiveness of the mitigative or remedial measures imposed as conditions of approval of the proposal.”*

The proposed development would be the fifth diamond mine in the Slave Geological Province and the fourth within the Mackenzie Valley. This fact not only causes concerns related to cumulative effects, it also provides the opportunity to evaluate impact predictions and mitigation measures from previous developments.

The EIS must include an outline of any follow up programs, contingency plans, or adaptive management programs the developer proposes to employ before, during, and after the proposed development. The EIS should explain how the developer proposes to verify impact predictions. To the extent possible the impact statement should also describe what alternative measures will be used in cases where a proposed mitigation measure does not produce the anticipated result.

The EIS must provide a review of relevant research and monitoring activities since the first diamond mine was permitted in the Slave Geological Province. This review should focus on the verification of impact predictions and the effectiveness of mitigation

measures proposed in previous diamond mine environmental impact assessments. Moreover, the EIS should include a proposal of how monitoring activities at the Gahcho Kué diamond mine can be coordinated with monitoring programs at all other diamond mines in the Slave Geological Province to facilitate cumulative impact monitoring and management. This proposal should also consider reporting mechanisms that could inform future environmental assessments or impact reviews.

In describing above, the EIS should distinguish between ‘compliance inspection’ (i.e. the activities, procedures and programs undertaken to confirm the implementation of approved design standards, mitigation, conditions of approval and company commitments), ‘monitoring’ (i.e. monitoring to track conditions or issues during the development lifespan, and ‘follow-up’ (i.e. any programs to verify the accuracy of impact predictions and determine the effectiveness of mitigation measures.)

3.2.8 Presentation and Cross Referencing

Unless the EIS follows the outline of this terms of reference, it should include a guide that cross-references the terms of reference with the impact statement. Where any information required by the terms of reference cannot be provided, the EIS shall include the reason for the omission. The environmental impact statement must include an index that will allow parties to quickly find relevant sections of the document. All mitigation measures proposed by the developer should be summarized in a “commitments table” for easy reference.

The developer is strongly encouraged to use modern technologies for presenting the information, including the use of hypertext for easy cross referencing. Similarly the use of maps, satellite imagery, photographs and other graphical depictions is strongly encouraged, as is the use of non technical plain language. Where possible, geographic information, or data, should be submitted in a format that allows the Panel and parties to conduct their own geographic information system (GIS) analysis. All GIS data must conform to the standards set by the GNWT’s spatial data warehouse (<http://maps.gnwtgeomatics.nt.ca/portal/index.jsp>).

To facilitate public participation in this review, the EIS should contain plain language summaries in English, Chipewyan, Dogrib, and French.

4 Key Lines of Inquiry

As outlined in section 1.3, key lines of inquiry are areas of the greatest concern that require the most attention during the EIR and the most rigorous analysis and detail in the EIS. Their purpose is to ensure a comprehensive analysis of the issues that resulted in significant public concern about the proposed development.

Four key lines of inquiry deal mainly, although not exclusively, with the biophysical environment. These are:

- caribou;
- water quality and fish in Kennady Lake;
- downstream water effects; and
- long term biophysical effects and closure issues;

Another three key lines of inquiry concern mostly the human or socio-economic environment. These are:

- substance abuse and decrease in family cohesion;
- increasing social disparity; and
- long term social, cultural and economic effects.

The remainder of this section describes the key lines of inquiry and provides specific information requirements where these have been identified in the scoping process.

4.1 Caribou

How will this development affect caribou?

In fact, from the community perspective caribou can be seen as the single most important issue, or the most valued component. Caribou numbers decreased sharply in recent years and there seems to be consensus among aboriginal groups that caribou are in poor health. Caribou are not only an important food source for traditional land users, they play an extremely important role in aboriginal culture. Threats to caribou are seen not just from the proposed development alone but cumulatively from all the diamond mines, mineral exploration, and other activities within their range.

Within this key line of inquiry the EIS should detail any effects on caribou, as well as their significance and likelihood in accordance with the instructions in section 3.2. In addition, the EIS must address how changes to abundance, health, distribution, or behaviour of caribou may affect the social, cultural, and economic well being of residents of the Mackenzie Valley, particularly the Akaitcho aboriginal communities.

Communities see a discrepancy between impact predictions in previous diamond mine assessments and the real or perceived outcome. The EIS needs to address this by explaining how it incorporated lessons learned, if any. To this end the developer is required to include a summary of caribou research and caribou related monitoring activities and their results for the potentially affected herds since the first diamond mine

was permitted. Research and monitoring activities must be reported for the Tibbit to Contwoyto winter road corridor as well.

During the scoping exercise the following specific information needs were identified and must be included in the caribou specific impact analysis:

- Information on all caribou herds whose range includes the proposed development, as well as the Tibbit to Contwoyto winter road including: e.g. population size, demographics, trends, range use patterns and conditions.
- A description of any life stages (including calving, post calving, overwintering, migration) during which each herd may interact with the proposed development.
- An estimate of the amount (absolute and relative) of habitat loss, degradation, or effective habitat loss for each potentially affected herd for various life stages.
- An estimate of the existing habitat fragmentation, the expected increase, and its possible effects on each potentially affected caribou herd for various life stages.
- An analysis of ways the proposed development may influence the energy balance of caribou and to what extent this may affect birthrates, calf to cow ratios, and calf survival. The analysis should include potential behavioural changes resulting from development components or associated activities, including sensory disturbance, effects on foraging, resting, and caribou movements within development area. Moreover, the analysis should be broken down into disturbance from individual components, including construction and operation of the mine, traffic on the access route, as well as air traffic.
- The identification of all possible pathways for caribou exposure to contaminants, e.g. from exposure to dust or intake of contaminated forage (i.e. lichens affected by air pollution) or direct intake of tailings, as well as any measures or actions to be taken to minimize exposure.
- The identification of all possible sources for increased caribou mortality.
- A description of any methods used to distinguish between impacts from development and natural variations in caribou numbers, health or behaviour.
- The identification of potential impacts on caribou from sources other than the proposed development, particularly those that may be influenced by the development. This should include an evaluation of any potential development related changes to harvest levels for each potentially affected caribou herd, e.g. by creating an access via the Mackay Lake road into an area previously inaccessible to vehicular traffic. Non-anthropogenic factors that increase the vulnerability of caribou should be considered as well.
- The identification of all components and associated activities of the development (including use of the Tibbit to Contwoyto winter road) that may have an effect on caribou, regardless of whether they are in the developer's view significant or not.
- The identification of all additive, multiplicative, or synergetic effects that may result from the components or activities associated with the proposed development.

Determine the overall effect of all components of the development as a whole on caribou.

- The identification of all cumulative effects of other past, current, or reasonably foreseeable future developments within the range of each potentially affected caribou herd in combination of individual components or activities of the proposed development as well as the overall effect of the proposed development.
- An explanation how any proposed mitigation measures, including plans for progressive reclamation, will ensure the sustainability of the Bathurst caribou herd as well as other potentially affected herds.
- The identification of all hazards to caribou within the development area and access routes, particularly Tibbit to Contwoyto winter road crossings, as well as road crossings at the site and hazards that may be posed waste rock and PKC facilities or the exposed lake bottom, e.g. contact with contaminated materials.
- An identification of all potential changes to the predator-prey relationship of any potentially affected herd and how this may affect the population of the herds.
- An outline of any potential measures or actions to minimize impacts, e.g. various road bed designs. To the extent possible this should include an evaluation of any proposed mitigation against the measures implemented by previous diamond mine developments and a discussion of the likelihood of success for each measure.
- An outline of any adaptive management strategies, e.g. what action may be taken if adverse effects on caribou are detected, for any of the items listed above, as well as any plans for monitoring effects on caribou. Management strategies that may be employed in situations where observed effects cannot be linked to the proposed development should be included as well.

4.2 Water Quality & Fish in Kennady Lake

What effect will this development have on the water quality and on fish in Kennady Lake?

Lowering the water level of 80% of the lake area and exposing the lake bottom for 15 or more years is of great concern to relevant government departments and aboriginal communities alike. During the scoping exercise both groups questioned the ecosystem's ability to recover. Similarly, the long term stability of waste rock and processed kimberlite disposed into the mined out pits resulted in concern among various parties.

The EIS must provide a detailed analysis of all impacts on fish abundance, health, and fitness for consumption, as well as the water quality in general. Particular emphasis is to be placed on the ability of the lake ecosystem to recover from prolonged exposure of the lake bed and on the viability of the proposed waste rock and kimberlite disposal. A detailed uncertainty analysis is required for this key line of inquiry.

The scoping exercise also revealed the following specific information requirements that must be addressed:

- Any effects associated with the fish out, fish salvage and restocking.
- Possible fish contamination and any resulting health issues from fish consumption, including pathways, long and short term exposure levels.
- Habitat destruction and creation, including potential for interrupting fish migration, alterations to natural drainage, and addition of deep water habitat.
- An analysis, e.g. via simulation model, of the expected changes in turbidity in the lake with adaptive management options for unexpected turbidity levels.
- The hydrogeological dynamics of the lake bottom under freezing conditions, in particular the potential for highly concentrated deep ground water to be expelled into the remaining ponds during freeze up.
- Any interactions between ground water and submerged processed kimberlite and waste rock, including the possibility of the pits being a long term contamination source.
- A detailed evaluation of potential contamination sources including: mill effluent, lakebed sediments, backfilled pits, use of explosives, spills (including cumulative effects of minor spills over time), waste rock and processed kimberlite, and deep ground water, including adequate information to evaluate the potential for dust generation from the exposed lake bed, e.g. substrate characteristics, particle size, sediment chemistry, as well as bench testing of drying behaviour.
- All potential sources for water contamination, particularly hydrocarbon or ammonium nitrate contamination including accidents and malfunctions. This should also include an evaluation of the potential for explosive charges, exploded or unexploded, to contribute to pollution.
- A detailed water management plan with information on treatment surfactants and reagents with enough detail to assess the capability of the treatment system to protect water quality, including back up options for adaptive management.
- Information on any proposed collection system for runoff from processed kimberlite and waste rock storage facilities, including expected contaminant levels and contingency plans.
- A description of any proposed monitoring activities, including monitoring of untreated runoff from roads or other structures. The principles addressed in section 3.2.7 on compliance inspection, monitoring, and follow-up apply.

This key line of inquiry is closely related to the ‘long term biophysical effects and closure issues’ key line of inquiry. Where appropriate information requirements identified there should also be addressed here via a summary analysis.

4.3 Downstream Water Effects

What effects will the development have on water downstream of Kennady Lake?

The release of large quantities of water during the dewatering of Kennady Lake may have effects on downstream creeks and lakes. This short term massive increase in flow will later be replaced by a 75% decrease over a long period of time while the third pit and the lake are re-filling. In addition to these fluctuations in volume, aboriginal communities are worried about possible contamination. Their experience with older mines has been very negative. Like caribou, fish play an important role not only in their diet but also their culture.

The EIS must provide a comprehensive analysis of all downstream effects including water quality and quantity, riparian vegetation, fish abundance and quality, and wildlife effects. The following specific information needs were identified in the scoping session:

- Impact on riparian vegetation, water fowl, semi-aquatic furbearers, terrestrial mammals, and channel stability from downstream effects of water discharges during construction, fluctuating water levels during operation, and reduced water levels while the lake is re-filling.
- Impacts on wildlife resulting from a possible change in freeze up and break timing associated with the de-watering of Kennady Lake (and any downstream effect).
- The reversibility of impacts associated with water level changes and the ability of the affected ecosystems to recover.
- Possible fish contamination and any resulting health issues from fish consumption, including pathways, long and short term exposure levels downstream of Kennady Lake.
- Possible changes to fish behaviour including interrupted migration;

This key line is related to the water quality and fish in Kennady Lake key line in that the same concerns over fish and water quality apply. Where the analysis of 'water quality and fish in Kennady Lake' identifies potential impacts or where uncertainty exists, the EIS must provide an evaluation of the potential for these effects to extend downstream of Kennady Lake and for how far.

4.4 Long Term Biophysical Effects & Closure and Reclamation

What will happen after the mine closes?

The scoping exercise revealed considerable concern over the long term effects of this development. In particular, the scoping exercise identified uncertainty about the viability of encapsulating processed kimberlite and mine water in the mined out pits, as well as pessimism about the recovery of the lake ecosystem after mine closure. The EIS must include a conceptual closure and reclamation plan and an analysis of the viability of this plan.

The scoping exercise resulted in the following specific information needs:

- An evaluation of the long term physical stability of waste rock and processed kimberlite storage facilities in light of the climate change scenarios required in section 5.7.
- An evaluation of the long term physical stability of any works constructed in connection with the development, including reclaimed areas.
- An evaluation of the potential for acid generating rock, the resulting impacts, and the management options to deal with acid generating rock and its impacts.
- A summary of the use of public consultation, consultation with first nations, and traditional knowledge in determining standards and methods for restoration.
- An evaluation of the possibility of speeding up the re-filling of the lake by utilizing additional water sources;
- A description of the type of fish and other aquatic habitat that will be created during reclamation, including a comparison to the existing habitat, as well as a description how DFO's no net loss requirement will be fulfilled.
- A description of any plans to re-stock the lake.
- An evaluation of the feasibility of the ecosystem to fully recover, or a prediction of the type of ecosystem that is expected to be created instead.
- Any long term monitoring plans, need for long term care and maintenance, assurance of long term monitoring and maintenance, including long term structural and environmental stability of waste rock and kimberlite storage facilities.

As outlined in section 3.2.7 the EIS must include a description of follow up programs, contingency plans, or adaptive management programs designed to verify the impact predictions of this EIR and to monitor and, if needed, alter the mitigation measures employed to minimize any impacts from the proposed development. Because cumulative effects were of great concern during the scoping sessions, the EIS should address follow up programs not only in regards to the direct impacts of the proposed development but also in regards to cumulative impacts in combination with other developments. The EIS should include the developer's vision of a coordinated monitoring program for cumulative effects from all diamond mines between the developer, other developers, aboriginal communities, and government agencies. The developer should evaluate current or proposed regulatory initiatives in connection with the Mackenzie Gas Projects for their merit.

4.5 Substance Abuse and Decrease in Family and Community Cohesion

Will this mine increase substance abuse and harm families and communities?

During scoping sessions representatives of aboriginal communities reported that increased substance abuse has been observed since diamond mines started operating in

the NWT. Communities were extremely concerned that an additional influx of money combined with rotational work schedules will take a heavy toll on families, communities and individuals.

The EIS must provide a detailed analysis of this key line of inquiry including the following specific issues:

- alternatives to 2 week rotation (see also alternatives);
- influx of outside workers putting strain on social fabric and facilities without a corresponding benefit;
- absence of workers from their family;
- absence of leaders, volunteers, etc. from communities;
- migration of workers and their family to larger centres, like Yellowknife; and
- poor money management and unhealthy lifestyle choices.

For this, as well as other socio-economic issues, it is important that the EIS provides a separate analysis for each potentially affected community, including communities not associated with a particular village or settlement. The analysis must address the vulnerability of each community and how each community was involved in the assessment of impacts along this key line of inquiry.

The Panel realizes that the developer cannot be expected to solve pre-existing social problems, such as substance abuse or domestic violence, through the proposed development. Nor can the developer be held liable for the choices made by individuals, which are influenced by numerous factors beyond the developer's control. Nonetheless, given the importance of these issues, the developer can be expected to work with communities and relevant government agencies to develop innovative solutions to these problems. To the extent possible the EIS should outline how the developer might facilitate a cooperative approach to social problems, which may or may not be related to the proposed development. As a minimum the EIS must provide an overview of how similar issues have been addressed in previous developments in the Mackenzie Valley and internationally.

4.6 Increasing social disparity

Will the mine lead to have and have nots?

The scoping exercise identified the issue of increasing disparity between those participating and benefiting from mine development and those who will not, or cannot, participate. Elders, traditional land users, women, and others who are less likely to participate in mining related activities are not only left behind but have to contend with increased costs of living caused by development, causing an effective decrease in standard of living. Given their experience with previous mines and given the already existing skilled labour shortage in the NWT, aboriginal communities are concerned they will not benefit from this development (see also section 4.7 on lost opportunities).

The EIS must address this issue in a comprehensive and detailed manner including impact predictions and proposed measures to mitigate any impacts. As with the previous key line of inquiry (section 4.5) a separate analysis for each potentially affected community addressing vulnerabilities, community engagement, and innovative solutions that may be unrelated to the direct impacts from the proposed development is required.

Socio-economic issues, and this key line of inquiry in particular, resulted in high levels of community concern during scoping. Yet the technical scoping sessions produced few specific information requirements compared to bio-physical issues. The EIS must, therefore, include a detailed description of the engagement with potentially affected communities to ensure adequate treatment of socio-economic issues.

4.7 Long Term Social, Cultural, Economic Effects

What will the social, cultural, and economic effects be over the long term?

The scoping exercise revealed concern over social, cultural, and economic effects over the long term, i.e. during operation and beyond. For instance, aboriginal communities are concerned over an inevitable economic downturn after mine closure. Moreover, aboriginal communities are of the opinion that extracting this resource at a time when many aboriginal people cannot participate (or are already working at other mines) represents a lost opportunity for future development. Community representatives were also of the opinion that many of the promises made in the approval process of previous mines were not kept. Particularly elders spoke of lack of investment in communities.

The EIS should provide a comprehensive analysis of long term social, cultural, and economic effects. One area to be evaluated is the issue of lost opportunities. The developer proposes to extract a resource at a time when local aboriginal people are not in a position to fully benefit. That resource will not be available when local aboriginal communities may be in a better position to benefit from such a development. This may include a discussion of opportunities not related to the development but facilitated by it. Another important area to address is the perceived lack of follow through with promises made in previous developments. An analysis of projected benefits, actually accrued benefits, and how the proposed development may improve on previous developments would be helpful.

Impact Benefits Agreements have become a common vehicle for addressing social, cultural, and economic impacts. While the commitment to negotiate an Impact Benefits Agreement in itself cannot be viewed as mitigation, the EIS may include cornerstones for Impact Benefit Agreements offered by the developer.

Other issues to be addressed include:

- lack of control over pace of development;
- disparity not only between individuals but also between communities;
- lack of capacity for monitoring by communities and government;
- over reliance of economy on one resource; and

- health effects from changed diet (e.g. less caribou, more store bought food, more canteen food at the mine site).

While the developer cannot be expected to solve all social problems, the developer can be expected to work with communities and relevant government agencies to develop innovative solutions to these problems. Similar to section 4.5 the EIS should outline how the developer might facilitate a cooperative approach to social, cultural, and economic issues, including an overview of how similar issues have been address in other developments internationally.

Similar to the requirements of section 4.4 on long term bio-physical effects, the EIS must include at least an outline or overview of proposed follow up programs to verify the impact predictions and to monitor the effectiveness of any mitigation measures. Also similar to section 4.4 this should include an evaluation of possible joint monitoring of cumulative effects.

5 Subjects of Note

As outlined in section 1.3, subjects of note require a meaningful and comprehensive analysis, albeit to a lesser degree than key lines of inquiry. Of the fourteen subjects of note listed in the MVEIRB's *Report of Environmental Assessment* seven deal mostly with biophysical issues, while four deal with socio-economic issues. The rest deals with development components, aboriginal rights, and land use planning related issues.

The biophysical subjects of note are:

- impacts on Great Slave Lake;
- air quality;
- species at risk and migratory birds;
- permafrost, groundwater, hydrogeology;
- carnivore mortality;
- waste rock and processed kimberlite; and
- climate change impacts.

Mostly socio-economic issues are included in:

- training, education, and promotion;
- impacts on tourism potential;
- infrastructure demands; and
- cultural sites and reduced cultural activities.

The remaining subjects of note are:

- alternative energy sources;
- aboriginal rights and the interconnectedness of issues; and
- the proposed Thaydene National Park.

5.1 *Impacts on Great Slave Lake*

The MVEIRB's REA identified impacts on Great Slave Lake as a separate subject of note. Under the 'downstream water effects' key line of inquiry the EIS must already address the question of how far downstream any effects from water flow fluctuation and/or contamination are likely to reach. Therefore, a summary of the analysis suffices here.

5.2 *Air Quality*

During the scoping process air quality issues did not raise the same level of concern as caribou, for instance. Nonetheless, some parties, particularly government agencies,

ranked air quality concerns quite high. Concerns over air quality were based, in part, on Gahcho Kué being the fifth diamond mine in the general area contributing to air pollution. The EIS consequently must address the issue of emissions from Gahcho Kué adding to pre-existing emissions.

The EIS must provide a comprehensive analysis of air quality issues, including an evaluation of the following items identified in the scoping exercise:

- diesel powered equipment and power generation, and the related transportation of fuel;
- dust generated by traffic, use of explosives and the exposed lake bottom;
- release of persistent organic pollutants and metals from waste incineration, including a description how compliance with Canada wide standards for dioxins, furans, and mercury will be achieved; and
- release of various pollutants including NO_x, SO₂, CO, with air quality predictions based on an air quality model comparing predicted ambient pollutant concentrations with applicable ambient air quality and deposition standards.

In addition to providing predictions and a significance evaluation for impacts on air quality, the EIS should provide an analysis of how air quality changes, particularly pollutants with bioaccumulation potential, will affect wildlife and fish. This analysis should be factored into the impact analysis for fish and wildlife issues.

5.3 Carnivore Mortality

The potential increased mortality of carnivores, including grizzly bear, wolverine, and wolf, was an important issue in previous assessments of diamond mines, including DeBeers' Snap Lake project. The EIS must evaluate the experiences with carnivore mortality and related mitigation measures at the existing diamond mines, including Ekati and Diavik. In addition to an evaluation of the mitigation measures prescribed in earlier assessments, as well as any adaptive management activities, the EIS should provide improvements over the methods applied at existing developments. The EIS must address any differences in impact predictions resulting from the proposed development's proximity to the tree line.

Specific information needs identified during scoping include:

- potential attractants to wolves, foxes, bear, and wolverines such as garbage and the creation of habitat in the camp, waste rock storage, etc;
- development components that may cause a sensory disturbance to foxes, bear, and wolverines;
- increased mortality resulting from creating access into a previously largely inaccessible area; and
- measures that may be taken to avoid or reduce these impacts.

5.4 Species at Risk and Migratory Birds

Species at risk and migratory birds enjoy legislated protection and must be considered a subject of note at least until more information is available and it can be shown that there are no important issues in this respect. The proposed development is closer to the tree line than existing diamond mines and different species may be involved.

The analysis provided in the EIS should be of sufficient detail to allow the Panel, as well as relevant other parties, to discharge its responsibilities under the *Species At Risk Act*, which includes:

- determining whether the proposed development is likely to affect a listed species or its critical habitat;
- identifying the adverse effects on the species and its critical habitat;
- ensuring that measures are taken to avoid or lessen those effects, consistent with any applicable recovery strategy and action plan; and
- monitoring the effects.

For the purpose of this EIR species at risk include all species listed under any applicable schedule of the *Species At Risk Act*, as well as any species listed by the GNWT or the Committee on the Status of Endangered Wildlife in Canada.

For migratory birds the EIS must provide:

- all potential disturbances during nesting, rearing, molting, staging, and migration, e.g. from construction activities, air traffic, and downstream effects of water flow changes;
- the potential for increased predation facilitated by the development;
- identification and quantification of all contaminant exposure routes and possible changes in contaminant levels, particularly in harvested species; and
- identification of all potential alterations to bird habitat, including loss of habitat within the mine footprint, the creation of new habitat, and any downstream effects of water flow changes, with particular emphasis on waterfowl.

5.5 Permafrost, /Groundwater, and Hydrogeology

During the scoping exercise government experts determined that limited baseline information created uncertainty about any impacts on permafrost or ground water movements. The dewatering of the lake, the excavation of large pits, and the re-filling of these pits with waste rock, processed kimberlite, and contaminated mine water was noted to have great potential to disrupt or change permafrost distribution and ground water flow

Although part of the information relevant to this subject of note is already covered in the water quality and fish key line of inquiry, the EIS must provide a comprehensive analysis for this subject of note. In particular the EIS must provide a detailed analysis of the feasibility of sequestering contaminants in the mined out pits over the long term.

The scoping sessions provided the following additional specific information requirements:

- simulations of the effects of lake dewatering and excavation of pits on ground water flow and quality in the Kennady Lake area in the short and in the long term as well as details on how groundwater flows will be managed;
- the potential interaction between ground water and the open pits, as well as between ground water and submerged waste rock or kimberlite, including the possibility of the pits being a long term contamination source;
- the relationship between taliks (i.e. unfrozen sections of soil and a lake) and ground water flows in the project area, particularly potential for taliks acting as a pathway for contaminants, including the distribution of taliks in the project area and any connection or interactions between taliks of different lakes;
- the chemical stability of co-disposed waste rock and processed kimberlite;
- the dynamics of the lake bottom under freezing conditions, in particular the potential for highly concentrated deep ground water to be expelled into the remaining ponds during freeze up; and
- assurance that long term modeling has been conducted for permafrost issues, particularly effects of the pits on the thermal regime, and a robust monitoring program will be in place.

5.6 Waste Rock and Processed Kimberlite Storage

While closely connected to other subjects of note, such as ‘permafrost, groundwater, hydrology’ or lines of inquiry, e.g. ‘water quality and fish in Kennady Lake’, the storage of waste rock and processed kimberlite in the mined out pits and in on-land facilities should be treated as a subject in its own right.

During the scoping exercise various parties expressed considerable concern over the feasibility of storing processed kimberlite in the mined out pits without creating a long term contamination source for Kennady Lake. Although parties generally acknowledged that backfilling pits is preferable to large waste rock piles, they considered this technology as unproven. The EIS must, therefore, provide a detailed description and analysis of how any water contamination will be avoided over the long term, i.e. many decades or even centuries after mine closure.

The height of the waste rock pile also caused some caribou-related concerns. The EIS should provide a review of available information on the effects of such structures on caribou behaviour. In addition, the EIS should provide a detailed discussion of alternative designs and their potential impacts. Experiences at any of the existing diamond mines in the NWT would be particularly helpful.

5.7 Climate Change Impacts

The scientific consensus is that the north is particularly vulnerable to impacts from a changing climate. The EIS should address both the development as a greenhouse gas contributor and climate change effects on the proposed development.

The analysis should include:

- quantity of emissions (in absolute terms, as proportion of NWT industrial emissions, and as proportion of NTW total emissions);
- project alternatives, including greenhouse gas offsetting options and technology innovations; and
- linkages between greenhouse gas prevention and other environmental opportunities (e.g. air and water pollution reduction, sustainable development).

The EIS must include climate change scenarios and their impacts on the development. The EIS should also include an evaluation of the potential for the development to create a mesoclimate at the mine site. In addition the EIS should address climate change impacts in combination with development related impacts on any of the valued components. The EIS should outline any specific adaptations of the development to climate change, as well as management options for future climate change effects.

The development as proposed relies heavily on the Tibbit to Contwoyto ice road. The ice road and the traffic on it contribute to greenhouse gas emissions and are vulnerable to climate change at the same time. The EIS must provide a detailed analysis of alternatives to transporting goods via road to the development site. See also section 3.2.6.

Experience with existing diamond mines shows that a large proportion of the ice road traffic, as well as emissions associated with the development, are related to power generation and the fuel required for it. The EIS must provide a detailed analysis of alternative sources of energy. This subject of note is closely related to the subject of note dealing with alternative energy sources.

5.8 Training, Education, and Promotion

In the scoping sessions aboriginal communities expressed disappointed in existing mines. Not only have employment targets not been met in some cases, but the aboriginal workforce continues to be employed largely in entry level jobs. Aboriginal communities saw an urgent need for improving their educational opportunities, for training that is transferable (and remains useful post mine closure), and for promotion of aboriginals into higher level jobs, including management. Aboriginal communities appeared unanimous in their view that the existing mines have not provided the benefits they expected.

The EIS must provide an analysis of training and education needs for mine employment and promotion of mine workers. In addition the EIS should provide an analysis of how the proposed development might affect training and education in the potentially affected communities in general. For example, increased training and education programs for mine employees but not others might exacerbate the social disparity issues discussed in

section 4.6. Moreover, training and education can contribute to providing opportunities unrelated to the proposed development that may address some of the lost opportunities issues identified in section 4.7.

5.9 Impacts On Tourism Potential and Wilderness Character

Tourism is another viable economic option for aboriginal communities. Tourism in the NWT depends heavily on the wilderness character of the land. Increasing mine development and mineral exploration threatens that wilderness character. Industry related air traffic, for example, greatly diminishes the wilderness experience visitors are willing to pay for. In addition to the scoping sessions for the Gahcho Kué project, this topic was also raised as an important issue by the same communities in a subsequent environmental assessment of a mineral exploration program (EA0607-003). Wilderness also has an intrinsic value to many Canadians.

This subject of note is related to the 'long term social cultural, economic impacts' key line of inquiry. The EIS should provide a summary of any analysis relevant to this subject done under the key line. The EIS should also address any potential for the proposed development to create opportunities not directly related to the proposed development. Specific information needs identified during scoping include:

- impacts from air traffic;
- loss of wilderness character (see also cumulative impacts); and
- decreased hunting success (or fewer wildlife sightings for eco-tourists) reducing attractiveness.

5.10 Infrastructure Demands

Increased development inevitably increases demands on infrastructure, be it physical infrastructure or social services. Of particular concern is the NWT's road network that has to contend with heavy truck traffic it was never designed for. Similarly, municipal and social services may be impacted. The concern is especially acute as this development may be going ahead in parallel with the Mackenzie Gas Project, which by itself is expected to put extreme pressures on existing physical and human infrastructure. Moreover, competition for skilled labour will make it more difficult and expensive for government to maintain infrastructure.

In light of the multiple infrastructure demands, including the Mackenzie Gas Project's, the following specific issues identified in the scoping sessions must be addressed:

- increasing out migration/skills drain to regional centres;
- infrastructure pressures on regional centres from in migration;
- shortage of locally available labour for community services;

- costs for government to provide services increases and physical infrastructure crumbles;
- monitoring and regulatory capacity;
- over extension of human and economic resources by local communities through project and its review process;
- rotational schedule resulting in absence of critical volunteers, e.g. volunteer fire fighters; and
- Increased demands on medical transportation, emergency services, hospital services, social service, public health services

The developer is encouraged to identify innovative solutions to infrastructure and capacity issues that may be outside the developer's purview in a similar fashion to the cooperative approaches described in section 4.5 and 4.7. As minimum the EIS must provide sufficient information for responsible agencies to plan and prepare for the development.

5.11 Cultural Sites and Reduced Cultural Activities

There is concern over possible impacts on cultural sites in the Lockhart River system, including Our Lady of the Falls and Lutsel K'e's original settlement at Artillery Lake. Increased participation in the wage economy may weaken traditional activities.

The EIS must provide a comprehensive analysis of these issues, taking into consideration that these issues are closely related to several key lines of inquiry, e.g. caribou and increasing social disparity.

Specific issues, or potential impacts to be evaluated, include:

- reduced involvement in communal activities;
- potential for growing sense of disempowerment;
- increasing out migration/skills drain to regional centres;
- reduced harvesting success/Loss of traditional skills;
- loss of language;
- loss of spiritual connections and knowledge;
- physical impact on heritage sites;
- loss of spiritual value of place;
- lost of aesthetic value of place;
- hunting restrictions around mine sites;
- effects on Lockhardt River sacred site; and
- Artillery Lake as the original site of Lutsel K'e.

The developer may not be responsible for issues such as language loss, but the developer is called upon to explore innovative solutions in cooperation with affected communities and relevant government agencies.

5.12 Alternative Energy Sources

This would be the fifth diamond mine in the region generating its power from diesel generators, resulting in air quality issues, transportation issues, climate change issues, renewable resource use issues, etc. Most of these can have a direct or indirect impact on caribou and/or water and fish which are key lines of inquiry for this EIR.

As already outlined in section 3.2.6 the EIS must provide a thorough analysis of alternative means of carrying out the development. This is especially true for energy sources. In addition to discussion the feasibility of alternatives and how they could be incorporated into the development, the EIS should compare the environmental impacts of transporting and burning diesel fuel to the environmental impacts of alternative energy sources, e.g. hydro power or wind power.

5.13 Aboriginal Rights and the Interconnectedness of Issues

The Panel is aware that certain impacts on the environment are, or are perceived to be, infringements on aboriginal rights. Removal of caribou, for example, may be seen as infringing on aboriginal hunting rights. Concerns about caribou expressed by aboriginal participants in scoping sessions were often not only about impacts on caribou themselves, but rather the impacts on aboriginal culture and impacts on aboriginal economy, both of which depend on caribou.

Also, during scoping aboriginal people claimed an inherent and treaty right to enjoy clean water. In addition to the technical water issues discussed above, the EIS should:

- demonstrate any consultation or mitigation efforts regarding this issue;
- identify existing water users in the vicinity of the proposed development and within the downstream area that may be affected by flow fluctuations or water quality changes;
- address any impacts on the navigability of downstream waters resulting from the flow fluctuations caused by the development; and
- include a prediction of any implications of water quality changes for human water and waterborne food consumption and an outline of how the public will be notified of impending flow fluctuations.

While the responsibility for consultation on aboriginal rights rests with the crown, as represented by the Department of Indian Affairs and Northern Development, procedural aspects of this consultation may be delegated to organizations such as the Panel or the developer (Supreme Court, 2004). The EIS must provide an analysis of how aboriginal

rights may be affected by the proposed development, bearing in mind that many of the issues, key lines of inquiry, and subjects of note are interconnected.

5.14 Proposed National Park

The proposed development is upstream of a proposed National Park around the East Arm of Great Slave Lake. A memorandum of understanding between the Lutsel K'e Dene and Parks Canada indicates that the proposed development would be in close proximity to Park's Canada's initial area of interest for the park.

The EIS must provide maps showing the exact location of the proposed development in relation to the proposed national park area of interest. Moreover, the EIS must provide an evaluation of any potential impacts from the development on the proposed national park. This evaluation should include activities unrelated to, but enabled or facilitated by the proposed development, such as activities following increased access into the area.

6 Cumulative Effects Assessment

Concern over possible cumulative effects permeated the entire scoping exercise and the fact that the proposed development would be the fifth diamond mine in the general area was cited numerous times as rational behind an issue or its priority. Consequently, cumulative impacts must be an important consideration in this EIR. In its REA the MVEIRB choose not to formulate a separate cumulative effects key line of inquiry. Instead the MVEIRB identified three key lines and five subjects of note as containing major cumulative effects components. These are:

- caribou (key line);
- substance abuse and decrease in family and community cohesion (key line);
- increasing social disparity (key line);
- aboriginal rights and interconnectedness of issues (subject);
- impacts on tourism potential (subject);
- air quality (subject);
- infrastructure demands (subject); and
- cultural sites and reduced cultural activities (subject).

The REA identified potential impacts on species at risk as another subject of note were cumulative effects may be an important issue.

As described in the definitions in section 1.4, the analysis of cumulative effects includes effects from components of the proposed development that together with effects from other developments may result in significant impacts on the development (regional impacts), although each individual impact may not be considered significant. The EIS must evaluate cumulative effects within each key line of inquiry or subject of note. In addition the EIS must also evaluate the development's overall impact on the environment, i.e. the additive, multiplicative, or synergetic impacts from individual development components, that by themselves may not be considered significant. For example, if impacts on tourism potential, infrastructure demands, and increasing social disparity by themselves were deemed not significant there could still be a significant overall impact on the cultural and social environment and the well being of Mackenzie Valley residents.

The EIS must contain a comprehensive stand alone section on cumulative effects assessment. It must provide sufficient information to allow the Panel and parties to evaluate the significance of the proposed development's overall cumulative impact on the environment, without having to refer to other sections extensively. As a minimum this section in the EIS must provide summaries of the analysis and results for any cumulative effects assessment done and presented under individual key lines of inquiry or subjects of note, as well as an evaluation of the overall impact.

The exact methods for assessing cumulative effects are left to the developer. However, the cumulative effects assessment must be compatible with the MVEIRB's *Environmental Impact Assessment Guidelines*. Appendix H of the guidelines refers specifically to cumulative effects assessment.

7 Traditional Knowledge Summary Report

Section 3.2.5 already established the need for applying traditional knowledge to the assessment of environmental impacts from the proposed development. Section 3.2.5 also provides general instructions on reporting on the use of traditional knowledge. In addition to incorporating traditional knowledge in impact predictions and significance analysis for individual issues, key lines of inquiry, and subjects of note, the EIS must contain a comprehensive, stand alone, section on traditional knowledge. This section must provide sufficient information to allow the Panel and parties, particularly those representing traditional knowledge holders, to evaluate acquisition and analysis of traditional knowledge by the developer.

The traditional knowledge summary report should address the following specific items:

- which communities and traditional knowledge holders participated in any traditional knowledge studies, or will participate in future studies;
- what approach was taken in working with traditional knowledge holders and the collection and use of traditional knowledge, and why;
- what policies/cultural practices exist in each community for the acceptable standards for working with traditional knowledge holders and handling the traditional knowledge;
- sources of traditional knowledge that has been used to date, including specific studies, archives, individuals interviewed etc.;
- verification of secondary research to be relevant and appropriate;
- evidence that the traditional knowledge was collected and peer-reviewed with the aboriginal community or traditional knowledge holders, and approved by the appropriate individuals or organizations; and
- how traditional knowledge and traditional knowledge holders have influenced the developer's project design, impact assessment, and mitigation measures.

Where the EIS cannot address any one of these items, it must provide a schedule or plan for how the issue will be or can be addressed throughout the EIR proceeding. Similarly, the EIS should outline any plans for future cooperation between the developer and traditional knowledge holders, e.g. monitoring and mitigation programs.

Subject to confidentiality considerations the summary report on acquisition and analysis of traditional knowledge should include, or have regard to:

- who traditionally (individuals and communities) has used the area;
- what types of use are noted (historical and current);
- cultural practices/sacred sites;
- hunting/trapping/gathering;
- social activities;
- land use patterns; and

- the cultural significance of the area.

Where traditional knowledge and western science come to different impact predictions, the EIS should outline how the developer proposes to deal with the disagreement, e.g. through adaptive management options.

As with cumulative effects assessment the methods use in the acquisition, analysis, and presentation of traditional knowledge are at the developers discretion but must not contradict the MVEIRB's *Guidelines for Incorporating Traditional Knowledge in Environmental Impact Assessment*.

8 Analysis of Individual Issues

This section contains instructions to the developer for analyzing all individual issues identified in the scoping exercise. The technical scoping workshop was organized along four themes for the bio-physical environment, which are:

- Wildlife,
- fish and other aquatic organisms,
- water, and
- other.

The technical scoping workshop also addressed the human environment with two themes, which are:

- community wellness and
- regional/territorial socio-economic issues.

As indicated in section 1.3 category 1 and 2 issues that have already been dealt with in a key line of inquiry or a subject of note, may be addressed by through a summary review in this section. Category 3 issues (i.e. all remaining issues) do not require an in-depth analysis but sufficient information must be provided to confirm that significant adverse impacts on the environment are unlikely and standard mitigation measures, or regulatory conditions, are well equipped to deal with them. All analysis must be in accordance with the general instructions provided in section 3.

The remainder of this section presents the issues in table format, organized by the themes of the scoping workshop. Some issues, particularly those not already addressed earlier in this document, are associated with specific information requirements.

8.1 *Wildlife*

The technical scoping exercise resulted in eight groups of issues within the wildlife area, listed in table 6-1. In addition the EIS should identify the species and relative abundance of wildlife utilizing the development area (including the access route via Tibbit to Contwoyto winter road corridor) during any time of the year.

Table 8-1
Wildlife Issues (Technical Scoping)

<i>Caribou</i>	<i>Key line of inquiry</i>
exposure to contaminants	
impacts to already vulnerable populations	
effects on reproduction	
cumulative impacts to population	
impacts on caribou behaviour	
hazards on site	
migration routes	

effects of tall waste pile on caribou and their predators	
Carnivores carnivore attraction human/bear encounters increased carnivore mortality noise/sensory impacts key habitat loss in eskers loss of prey sources for grizzly bears	Subject of note
Birds disturbance exposure to contaminants habitat impacts	Subject of note
Changing Water Levels drawdown impacts on habitat downstream impacts Wildlife impacts from freeze- and breakup timing changes	Key line of inquiry
Other Ungulates Impacts on muskoxen distribution impacts on moose sensory disturbance to muskoxen	
Traffic & Road Concerns impacts from traffic on winter roads new access from spur road aircraft traffic disturbance	
Species at Risk General waste management impacts impacts on small mammals	Subject of note

Other Ungulates

The proposed development is closer to the tree line than previous diamond mines in the NWT. Consequently there may be different species composition resulting in ungulates other than caribou being affected to a larger extent than from previous mines and to a larger extent than the scoping exercise may suggest.

Specific information requirements include:

- frequency of muskoxen and moose utilizing the development area and including pertinent information such as time of the year, abundance, and other developments that may impact on the same muskoxen population, etc.;
- development components that may cause a sensory disturbance to muskoxen or moose as well as possible sources of contamination and on site hazards;

- potential changes to the predator-prey relationship of any potentially affected ungulate population and predicted long term effects on the population;
- any measures may be taken to avoid or reduce these impacts; and
- potential development related changes to harvest levels for each potentially affected ungulate populations, e.g. by creating an access via the Mackay Lake road into an area previously inaccessible to vehicular traffic.

Traffic and Road Concerns

Traffic and other road related concerns were raised multiple times during scoping and are reflected in more than one key line of inquiry or subject of note. Because traffic and road concerns are not identified as distinct key line or subject of note, the EIS should provide a comprehensive summary of any related analysis here to facilitate the Panel's evaluation.

The EIS should describe:

- any efforts by the developer, other developers, or governments to monitor the environmental effects of the Tibbit to Contwoyto winter road;
- the results of these efforts and any plans for future monitoring;
- how the proposed development will alter traffic volumes and patterns on the Tibbit to Contwoyto winter road, including the transport of dangerous goods;
- how changes in traffic volume and pattern may affect the environment, including caribou, erosion/sedimentation around portages, vegetation and benthic environment, spills, and water withdrawal;
- how construction and operation of the spur road may affect the environment including caribou, erosion/sedimentation around portages, vegetation and benthic environment, spills, and water withdrawal;
- the potential of the spur road to open a previously inaccessible area to hunters and/or recreational snowmobilers (any data collected during the advanced exploration stage on this issue should be presented); and
- the estimated number of flights during construction, operation and closure, broken down by jet, large propeller, small fixed wing and rotary wing aircraft, based on experience with previous diamond mine developments, taking into consideration 'normal' winter road seasons, such as the 2006/07 season, as well as exceptional seasons such as the 2005/06 season that resulted in a significant increase in air traffic, and caribou life stages, e.g. spring migration.

Other

During the scoping exercise impacts on small mammals and waste management were recorded in this category. Waste management in this section refers to the management of sewage, camp waste, automotive fluids, and other wastes generated during construction and operation, rather than the management and disposal of waste rock, processed

kimerlite, or contaminated ground water. Both issues addressed here did not play a very prominent role by themselves during scoping. However, both are influencing factors for key lines of inquiry and subjects of note. Waste management, for example, influences water quality, which is a key line of inquiry, while small mammals are an important food source for carnivores, a subject of note.

The EIS should provide a plan of waste management during construction, operation, and closure including:

- camp sewage;
- camp refuse;
- automotive fluids or other hydrocarbons at mine site and on the access route from Yellowknife, including handling of hydrocarbon contaminated soil;
- scrap metal and other discarded machinery or parts;
- discarded construction material;
- any hazardous materials; and
- any other waste generated.

The EIS should also include a discussion of alternatives to the proposed waste management plan that have been considered and any adaptive management options. The waste management plan should take into consideration experiences of the existing diamond mine (Ekati, Diavik, Snap Lake) as well as the capacity of the receiving environment, e.g. for sewage disposal.

The proposed waste management, as described in the land use permit application, relies heavily on Yellowknife facilities. The EIS must show that Yellowknife is capable and willing to accept the materials, particularly hazardous material.

8.2 Fish and other Aquatic Organisms

The technical scoping exercise resulted in six groups of issues within this topic, listed in table 6-2.

**Table 8-2
Fish Issues (Technical Scoping)**

<i>Watershed Impacts</i>	<i>Key line of inquiry</i>
fish health	
fish behaviour (increase and decrease in flow)	
migration interruption	
water chemistry alterations from deep ground water	
chemistry changes in sediment and water	
impacts of backfilling on aquatic biota	
fluctuation of water flows	
<hr/>	
<i>Road Effects</i>	
ice road construction	

<ul style="list-style-type: none"> <i>erosion</i> <i>water withdrawal</i> <i>increased ice thickness</i> watercourse crossings spills 	
<p>Operations and Construction</p> <ul style="list-style-type: none"> fish out contaminant levels Freshwater Lake impacts habitat destruction and creation noise and vibration on fish behaviour 	
<p>Data</p> <ul style="list-style-type: none"> baseline data monitoring 	Key line of inquiry
<p>Long Term Effects</p> <ul style="list-style-type: none"> feasibility of recovery physical changes to lake addition of deep water habitat post-mine and impacts on the rest of the lake 	Key line of inquiry
<p>Reclamation Methods</p> <ul style="list-style-type: none"> alternative water sources habitat creation restocking of fish 	Key line of inquiry

8.3 Water

The technical scoping exercise resulted in seven groups of issues within this topic, listed in table 6-3.

Table 8-3
Water Issues (Technical Scoping)

<p>Water Rights</p> <ul style="list-style-type: none"> Impacts on Dene Water Rights and spiritual concerns impacts on navigability of downstream waters interference with existing water users 	Subject of note
<p>Permafrost</p> <ul style="list-style-type: none"> effects of permafrost freezeback on exposed lake bed adequacy of permafrost monitoring and data to appropriately model mine components problems with freezeback of processed kimberlite implications of climate change on reclaimed mine components 	Subject of note
<p>Groundwater/Hydrogeology</p> <ul style="list-style-type: none"> impacts of pits on movement and quality of groundwater interaction between groundwater and submerged waste 	Subject of note

relationships between taliks and groundwater flow regime short term and longterm impacts on groundwater flow management of groundwater flows by DeBeers	
Public Concern implications of water quality on human health public notification of flooding events	
Water Quality end of pipe contamination pits as long term contamination sources geochemistry of waste rock and process kimberlite turbidity during dewatering and rewatering lake contamination runoff from PKC and waste rock dust as water contamination hydrocarbon contamination Length and adequacy of long-term water quality monitoring	Key line of inquiry
Surface Water/Watershed downstream effects of large water releases reduced water flows as lake level is restored ice quality on Kennady Lake and surrounding lakes cumulative effects on Hoarfrost and Lockhart rivers and Great Slave Lake extent of downstream effects	Key line of inquiry
Water Use and Management water diversion effects alterations to natural drainage	

8.4 Other

During scoping air quality, climate change issues, geochemistry, vegetation, the physical stability of works, and emergency measures were identified as ‘other’ issues. The EIS must address all the issues listed in table 6-4 in accordance with the general instruction listed in section 3 ‘assessment methods and presentation’.

Table 8-4

Other Issues (Technical Scoping)

Climate Change impact on project design transportation alternatives energy alternatives creation of microclimate at mine site	Subject of note
Physical Stability waste rock and PKC co-disposal impacts from changing permafrost	
Geochemistry	

Impacts from acid-generating rock composition of lake bed sediments	
Air Quality increased dust from exposed lake bed waste incineration impacts impacts from emissions	Subject of note
Vegetation increase in invasive species impacts from increased dust on vegetation stress to rare plant populations	
Emergency Measures impact of smaller spills	

Vegetation

The EIS should include an assessment of the probability of introducing any foreign, parasitic, or invasive species, as well as management options in the case of such an introduction. Similar to water and air quality (4.1.2 and 5.1.2) the EIS must also address the potential of dust generated from the lake bed, or any other exposed surface including roads, to adversely affect vegetation.

8.5 Community Wellness

The scoping exercise distinguished between community wellness related issues applying to individual First Nations or Metis communities, whether located in a specific settlement or not. Table 6-5 lists the six groups of issues that were identified.

**Table 8-5
Community Wellness Issues (Technical Scoping)**

Employment discriminatory hiring policy and practices cultural difference in workplace affecting job satisfaction lack of opportunity for advancement increased need for child care gender inequities frustration from hiring targets that have not been met	
Education incentives and disincentives to further education need for increased educational programming to prepare for mine employment lack of functional literacy	Subject of note
Training lack of diversity & adequacy of training opportunities inability to meet educational requirements to access training	Subject of note

limited training available in outlying communities	
Income and Expenses unhealthy lifestyle choices money management issues impacts from poor budgeting skills increasing income disparities (haves/have nots) increased cost of living availability, adequacy and affordability of housing	Key line of inquiry
Cultural/Population Health loss of language reduced harvesting success loss of traditional skills decreased transfer of knowledge between generations loss of spiritual connections and knowledge physical impacts to health loss of family cohesion related to rotational work schedules	Key line of inquiry
Community Capacity reduced involvement in communal activities lack of control over pace of development potential for growing sense of disempowerment increasing outmigration/skills drain to larger centres infrastructure pressures of increasing immigration to regional centres shortage of locally available labour force for community services lack of capacity to engage in monitoring & enforcement	Subject of note

8.6 Regional/Territorial Socio-Economic Issues

In addition to community wellness issues the scoping exercise identified six types of socio-economic issues on a regional or territorial scale. These are listed in table 6-6.

Table 8-6

Regional/Territorial Socio-Economic Issues (Technical Scoping)

Heritage Resources physical disturbances to heritage sites loss of spiritual value of place loss of aesthetic value of place loss of alternative uses of land
Labour Force problems with employee retention

<p>lack of adequate Northern labour pool to staff mine wage benefit drain from North</p>	
<p>Government Capacity</p> <p>increasing costs and pressures on existing physical infrastructure increased costs and pressures on existing social services lack of adequate skills training programs for Northerners increasing costs and pressures on regulation and monitoring activities</p>	<p>Subject of note</p>
<p>Regional Disparities</p> <p>widening income disparities between communities and regions competition for access to benefits between communities determination of "affected communities"</p>	
<p>Northern Business</p> <p>distribution of spin off effects - flows from North inflated wages/material costs - effects on local/regional businesses secondary business development opportunities for Northern firms</p>	
<p>Sustainable Economy</p> <p>over-reliance on one resource economy impacts on alternative business opportunities/economic diversification</p>	

9 Deliverables

The developer is expected to submit the EIS to the Panel office for a conformity analysis. Once in conformity Panel staff will arrange distribution of all materials to parties with the help of the developer. The EIS submission should include:

- 10 copies of the EIS in hardcopy;
- the EIS in digital format with individual files not to exceed 5 MB in size and ideally with individual files being less than 3 MB in size;
- a concordance table that cross-references the terms of reference with the impact statement as part of the EIS;
- a commitments table listing all mitigation measures the developer commits to employ as part of the EIS;
- associated maps (not including engineering drawings) as shape files in accordance with GNWT spatial data warehouse specifications;
- a non technical summary of the EIS in English, Dogrib, Chippewayan, and French; and
- any supporting materials such as videos, animations that might enhance the understanding of the Panel and the parties.

While preparing the EIS the developer is encouraged to continue consulting with all parties to the EIR. The developer is also encouraged to contact the Panel office when the developer is unclear about any of the requirements of this terms of reference, and to seek clarification in writing.

10 References

DeBeers (2005): “Application Report for the Mackenzie Valley Land and Water Board”, attachment to Land Use Permit Application MV20050032, DeBeers Canada, November 2005, Yellowknife, NT.

MVEIRB (2006): “Reasons for Decision and Report of Environmental Assessment for the DeBeers Gahcho Kué Diamond Mine, Kennady Lake, NT” Mackenzie Valley Environmental Impact Review Board, June 28, 2006, Yellowknife, NT.

MVEIRB (2004): “Environmental Impact Assessment Guidelines”, Mackenzie Valley Environmental Impact Review Board, March, 2004, Yellowknife, NT.

Supreme Court (2004): “Haida Nation v. British Columbia (Minister of Forests)”, Supreme Court of Canada decision 2004 SCC 73.