

**CUMULATIVE EFFECTS ASSESSMENTS
IN THE
INUVIALUIT SETTLEMENT REGION:**

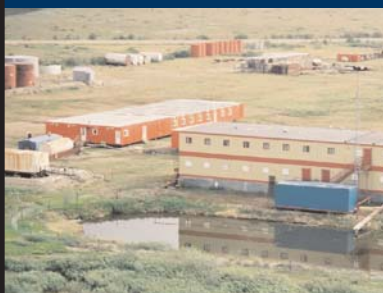
A GUIDE FOR REVIEWERS

JANUARY 2002

PREPARED FOR
**THE ENVIRONMENTAL IMPACT SCREENING COMMITTEE
AND THE ENVIRONMENTAL IMPACT REVIEW BOARD**

PREPARED BY
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Prepared for:
**The Environmental Impact Screening Committee and
The Environmental Impact Review Board**

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Preface

Applicants for authorizations to undertake activities in the Inuvialuit Settlement Region need to understand the priority that Inuvialuit place on environmental issues. Applicants also need to understand the importance of consulting with the Inuvialuit and their institutions to ensure that mitigation of project effects is to the highest standard.

The Inuvialuit Final Agreement (IFA), dated June 5, 1984, settled the land claim of the Inuvialuit in the Western Arctic Region of Canada. This agreement was “approved”, given effect and declared valid” by section 3(1) of the *Western Arctic (Inuvialuit) Claims Settlement Act*, being Chapter 24, 32-33, Elizabeth II of the Statutes of Canada.

The Act further provided in section 3(2) that the beneficiaries under the Agreement “shall have the rights, privileges and benefits set out in the Agreement”, and in section 4 that the provisions of the Act and the of the Agreement will prevail over any other law applying to the Territory in the event of inconsistency or conflict.

Being a land claims settlement within the meaning of section 35 of the *Constitution Act*, 1982, the Agreement is thereby affirmed as an existing aboriginal right. In consequence of these statutory provisions, the terms of the Agreement are given a preferred status over all other federal and territorial laws within the defined Inuvialuit Settlement Region in the Western Arctic.

The Inuvialuit negotiated the IFA to avoid repeating the experience of the late 1970s when they felt sidelined by the proponents of development in the Mackenzie Delta. As project descriptions come forward for renewed activity in the Inuvialuit Settlement Region, institutions established by the IFA will exercise their mandates in pursuit of the goals specified by the IFA, namely:

- to preserve Inuvialuit cultural identity and values within a changing northern society
- to enable Inuvialuit to be equal and meaningful participants in the northern and national economy and society
- to protect and preserve the Arctic wildlife, environment and biological productivity

Inuvialuit participate in development economically as well as through co-management of fish and wildlife and in review of project descriptions. The Inuvialuit have expressed their interest in having resource development proceed by consenting to the issuance of exploration rights by the Crown and by the Inuvialuit Regional Council. They are, however, equally determined to ensure that development will not occur at a long-term cost to the land that has sustained their well-being for generations. Wise stewardship of the land is central to the vision that Inuvialuit have for the future landscapes of the Inuvialuit Settlement Region.

The most important thing that we have is our land and waters and because we have looked after them, they have supported us for many generations and if we continue to ensure they are cared for – they will support us for many generations to come.

Billy Day 1993

Authorship

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Executive Summary

The purpose of the Reviewer's Guide is to assist the Environmental Impact Screening Committee (EISC) and Environmental Impact Review Board (EIRB) in their consideration of the cumulative effects likely to be caused by a proposed development in the Inuvialuit Settlement Region (ISR). The approach acknowledges current limitations in the theory and practice of cumulative effects assessment and management, both in the ISR and elsewhere, and attempts to assist the EISC and EIRB in meeting their mandates today, while developing over time a capacity for both assessing and managing cumulative effects of activity in the ISR.

The emphasis of the guide is on the environmental impact screening process under the IFA, on the grounds that the review process of the EIRB for cumulative effects is largely in line with that of the *Canadian Environmental Assessment Act* (CEAA). However, both processes are considered. Where a task is relevant to both the screening and review functions, reference is made to the screener/reviewer.

If the environmental assessment is to be useful as a basis for the determination or decision required by IFA s. 11, the proponent needs to understand in full the requirements and expectations of the screener/reviewer. In particular, there needs to be a common understanding of the definition of cumulative environmental effect, the components of scoping, and the criteria used to decide upon significance.

The degree of detail and depth of analysis required should be in direct proportion to the likely significance of cumulative effects caused by the project.

The mandate of both the EISC and the EIRB is defined in relation to the examination of a specific proposed development. The consideration of cumulative effects therefore has to be precise about the contribution that the project may make to cumulative effects and be specific about what Valued Ecosystem Components (VEC)s could be affected and how.

Consideration of cumulative effects also must distinguish concerns about the pace of activity or the scale of activity from valid cumulative effects: while these factors may contribute to environmental effects, they do not necessarily. Whether multiple activities do in fact have an impact depends more directly on other factors and it is the job of the screener/reviewer to assess the validity of the case made by the proponent regarding these factors.

The guide is structured as a series of questions that the screener/reviewer needs to reflect upon in coming to a determination/decision. These questions and the decision sequence are illustrated in Figure 4-1.

The first series of questions is for the assessor (i.e. the proponent, whose job it is to prepare the Project Description or Environmental Impact Statement). These questions are included in this guide because the first matter the screener/reviewer must deal with is the adequacy of the assessment provided as a basis for deliberations on "significant negative environmental effects". The screener/reviewer refers to other reviewers and various sources of information as appropriate. In cases of doubt over the validity of the assessment and over the effectiveness of mitigation, the proponent should be given an opportunity to clarify. The EISC then proceeds to a determination on the environmental effects of the project (including cumulative environmental effects) and whether these are significant or not.

Table of Contents

Preface	i
Authorship	iii
Executive Summary	v
1 Introduction	1-1
1.1 Purpose of this Guide	1-1
1.2 Who should read this Guide?	1-1
1.3 How to use this Guide	1-2
2 Context	2-1
2.1 How does the IFA define the environmental screening function?	2-1
2.2 What questions are relevant to the consideration of cumulative effects?	2-2
2.3 How to obtain an “adequate preliminary assessment”	2-3
2.4 What are the current limitations to cumulative effects assessment and management in the ISR?	2-3
3 What questions must be addressed by the assessor?	3-1
4 What questions must be addressed by the screener/reviewer?	4-1
5 How can the influence of the EISC screening determination be enhanced?	5-1
5.1 On what mitigation assumptions is the determination based?	5-1
5.2 How can the EISC, within its mandate, more effectively influence authorization decisions?	5-1
5.3 What other procedural options are available to the EISC to advance CEA and management?	5-2
6 How may the EIRB advance CEA?	6-1
7 Bibliography	7-1
Appendix 1 List of referrals and other sources	A-1

List of Figures

Figure 4-1 Sequence for Consideration of Cumulative Environmental Effects	4-3
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Abbreviations

CEA	cumulative effects assessment
CEAA	<i>Canadian Environmental Assessment Act</i>
COGOA	.....	<i>Canada Oil and Gas Operations Act</i>
DIAND	.....	Department of Indian Affairs and Northern Development
EIA	.....	environmental impact assessment
EIRB	.....	Environmental Impact Review Board
EIS	.....	Environmental Impact Statement
EISC	.....	Environmental Impact Screening Committee
EISRP	.....	environmental impact screening and review process
IFA	.....	<i>Inuvialuit Final Agreement</i>
ISR	.....	Inuvialuit Settlement Region
NEB	.....	National Energy Board
NWT	.....	Northwest Territories
RA	.....	responsible authority
Settlement Region	.....	Inuvialuit Settlement Region
VEC	.....	valued ecosystem component

1. Introduction

1 Introduction

1.1 Purpose of this Guide

<i>To assist with CEA</i>	The purpose of this guide is to assist the Environmental Impact Screening Committee (EISC) and Environmental Impact Review Board (EIRB) in their consideration of potential cumulative effects from a proposed development for purposes of meeting their respective mandates under the Inuvialuit Final Agreement (IFA) for environmental impact screening and review.
<i>Growing concern about multiple activities</i>	This guide has been prepared in the winter of 2001/02. At that time, an increasing number of applications for activity are being submitted, in particular for resource activities, on lands within the Inuvialuit Settlement Region (ISR). There is concern among communities and those with reviewing responsibilities about the potential for cumulative environmental effects from multiple activities.
<i>Evolution of CEA</i>	At the same time, the collective ability of proponents and of government to undertake cumulative effects assessment and to manage cumulative effects is still evolving. It will be some time before “best practices” in cumulative effects assessment and management (CEAM) will be developed to a fully satisfactory standard or before such practices are fully implemented.
<i>Meeting mandate today</i>	In the meantime, applications for activity will come forward, and determinations and decisions made, pursuant to the <i>Inuvialuit Final Agreement (IFA)</i> and to Laws of General Application. The purpose of this guide is to describe an approach to dealing with issues of cumulative environmental effects of proposed developments, while developing over time a greater capacity for both assessment and management of cumulative effects in the ISR.
<i>Building capacity over time</i>	As “best practices” and capacity for cumulative effects assessment and management develop, it should be necessary to revise the advice provided in this guide, to increase the level of sophistication and detail.

1.2 Who should read this Guide?

<i>EISC and EIRB</i>	This guide has been prepared to help the EISC and EIRB to structure their thinking on cumulative environmental effects of proposed development projects in the ISR. This guide may also assist proponents to understand the concerns, expectations and requirements of the EISC and EIRB.
<i>Focus on screening</i>	The focus of this advice is the environmental screening function of the EISC, although the logic in the sequence of questions will also be of use to the EIRB.

1.3 How to use this Guide

The guide is structured as a series of questions that the screener/reviewer needs to reflect upon in coming to a determination/decision on a proposed development.

Questions for the assessor

The first series of questions is for the assessor. It is the job of the proponent to prepare the Project Description (or Environmental Impact Statement) that forms the basis for the screener/reviewer's consideration, and so the proponent is the primary assessor.

Questions for the assessor are included in the guide for the screener/reviewer because the first question that the screener/reviewer must consider is whether the assessment provided is sound and acceptable as a basis for deliberations on significant negative environmental effects.

Questions for the screener/reviewer

The second series of questions are for the screener/reviewer. It is the job of the screener to assess the adequacy of the Project Description, to draw on other sources of information as appropriate, then to proceed to a determination on what the environmental effects of the project are (including cumulative environmental effects) and whether these are significant or not.

2. Context

2 Context

2.1 How does the IFA define the environmental screening function?

IFA s. 11

Section 11 of the *Inuvialuit Final Agreement* sets out a formal environmental impact screening and review process (EISRP) to examine proposed developments that are subject to screening, and defines the roles and mandates of the EISC and the EIRB for environmental screening and review. The IFA requires that unless and until the provisions of Section 11 have been met, no licence or approval may be issued that would enable the proposed development to proceed (IFA s. 11(31)).

Role of EISC and EIRB

The authority and accountability for environmental screening and review are vested in the EISC and the EIRB. The results of the work of the EISC and the EIRB contribute to the environmental assessment processes of the federal government, which in turn influences the decisions upon and management of projects and their environmental effects. Note that for activities subject to CEAA (including most mineral and all oil and gas activities), the Act requires that a cumulative effects assessment be conducted.

Significant negative environmental effect

The IFA requires that upon receipt of a Project Description, the EISC shall “expeditiously determine if the proposed development could have a significant negative environmental impact” (IFA s. 11.(s.13)). This determination is to be based on an evaluation of the information before the EISC, and a collective (panel) assessment of the “significant negative environmental effects” that the proposed development is likely to cause.

Based on “adequate preliminary assessment”

In order to make this determination, an assessment must be made of the potential for environmental impact of the project. The requirement is not to undertake a full assessment and review of the project on the scale and depth that is defined for the EIRB, but to make an “adequate preliminary assessment” of the project.

2.2 What questions are relevant to the consideration of cumulative effects?

Significant effects Whether there could be significant negative cumulative effects of a project depends on the same factors that create significant negative environmental effects, together with additional stressors caused by other projects and activities in the area.

Questions to ask There are several questions relevant to a determination of cumulative effects:

- What are the important valued ecosystem components (VECs) in the area that could be affected by this project, and by the effects of this project in combination with others?
- How would this project affect those VECs?
- Is the activity to take place at a time or place that would be likely to affect the VEC negatively?
- What is the range of the effect of the proposed activity on the VECs?
- What is the range of the effects of other activities, (past, present or future) on the VECs?
- Is there overlap or fragmentation that would likely be caused that would increase the stress on the VECs?

Real versus perceived effects It is also the task of the screener or reviewer to distinguish “substantial” or “real” cumulative effects from “perceived” cumulative effects. This is not to say that perception of cumulative effects are not important; however, a judgement made on the likely significance of effects should distinguish the objective basis of concern from the subjective.

For example, the question “Is the pace of activity too fast?” is not necessarily relevant to cumulative environmental effects. Pace may or may not contribute negatively to cumulative effects. Some activities can be undertaken very slowly and badly, with very serious long-term effects; an example would be the construction of the Distant Early Warning system line stations. Alternatively, some projects can be done quickly and carefully, with minimal project effects, and with care to avoid cumulative stressors.

Also scale, cost or duration of a project are not necessarily relevant. The important factors are the effects of the stressors caused by the project on the VECs of importance.

2.3 How to obtain an “adequate preliminary assessment”

*Project Description/EIS
from proponent*

The EISC must rely largely, though not entirely, upon the Project Description for the information it needs to make its assessment. The EIRB relies upon the Environmental Impact Statement (EIS) prepared by the proponent, and on proceedings of the review process set out in the IFA.

*Screener must provide
clear requirements and
expectations*

Guidance for the proponent's work in developing the Project Description — and if required, the EIS — must come from the reviewer (i.e., the EISC and the EIRB respectively). Unless the proponent's work focuses on criteria used by the screener/reviewer, the proponent's assessment and mitigation work may not be helpful to the screener/reviewer's deliberations. This is even more likely for cumulative environmental effects assessment than for environmental impact assessment (EIA) more generally because of the lack of precision in the concept of cumulative impacts.

In particular, the screener/reviewer and the proponent should be working with a common understanding of the following:

- the definition of cumulative environmental effect: A cumulative effect is a change to the environment that is caused by a human action in combination with other past, present and future human actions (Hegmann *et al.* 1999)
- agreement on the components of scoping (valued ecosystem component selection, temporal and spatial boundaries, project inclusion list, etc.)
- criteria on significance, so that when making decisions on mitigation, the proponent understands what will determine “significance” in the mind of the screener/reviewer (see Proponents Guide – KAVIK-AXYS 2001 for a detailed discussion)

2.4 What are the current limitations to cumulative effects assessment and management in the ISR?

At the moment there are limitations to the capacity in the ISR to assess or manage cumulative effects. Undertaking cumulative effects assessment (CEA) will raise the profile of such limitations, listed below, and provide impetus for future progress:

- limited information on other activities, past, present and planned
- limited information on actual activities and differences from planned activities
- availability of a common detailed map base of geographic and environmental data
- difficulties in quantification of uncertainty (project, scientific and analytical) in the analysis of effects

- lack of feed-back of monitoring results into a common database so that proponents, the screener/reviewer and other agencies can assess outcomes
- lack of follow-up of approved projects
- limited information on "thresholds" from lack of data or difficulty proving impact systems
- limited capacity to manage cumulative effects because of the fragmentation of responsibility and authority for such management

3. Assessor Questions

3 What questions must be addressed by the assessor?

The Project Description In order to make a screening or review determination, an assessment must be made of the potential for environmental impacts from the project. For the EISC, the requirement is to make an “adequate preliminary assessment”, which in practice it bases on the Project Description prepared by the proponent, together with comment solicited from other parties.

Who assesses? The primary assessor is the proponent. The EISC (or EIRB) is a secondary assessor: it reviews the assessment provided, and determines whether the assessment is satisfactory for the purposes of the determination (or decision) that must be made. The EISC may return the Project Description to the proponent if it is determined by the EISC to be deficient, a judgment that is taken in the context of the formal requirements set out in the EISC 1999 *Operating Guidelines and Procedures*, and any other form of advice provided formally or informally to the proponent. The EISC then makes a determination on whether there are “significant negative environmental effects” or not.

Key questions The following are the key questions that should be considered and addressed by the proponent, in a manner that equips the EISC to make its determination:

1. Is the project likely to have negative environmental effects on VECs in the ISR?
2. If so, will the residual negative environmental effects that remain after mitigation, combine with the effects of other projects, past, present, or future?
3. What is the significance of the overall cumulative environmental effects, including the effect of the project?
4. If this project, in combination with other projects in the area, is likely to create a “significant negative cumulative effect”, are there further mitigation measures that could reduce or eliminate the project’s contribution to these effects so that the combined effect does not threaten the VEC?

A detailed assessment of each question follows.

Project Effects

1. Effects on VECs

Is the project likely to have negative environmental effects on VECs in the ISR?

This assessment takes into account the measures that the proponent proposes to implement to mitigate environmental effects of the project itself. This assessment is necessarily a forecast, and so there will be uncertainties and these should be identified. The assessment can be quantitative, qualitative, or both and should attempt to put the impacts into a perspective that can be understood.

If a project has no negative environmental effects on VECs in the ISR, then, by definition, there can be no cumulative negative environmental effects.

Identification of the VECs is an important step in scoping or focussing the assessment. Consultation with communities and agencies must be undertaken in advance to identify and to assess priorities. In particular, consultation should cover concerns about any impacts on wildlife, wildlife habitat, and on wildlife harvesting.

Combined Effects

2. Combined effects

If so, will the residual negative environmental effects that remain after mitigation, combine with the effects of other projects, past, present, or future?

This requires an analysis that includes:

- identification of VECs
- identification of other projects and activities
- analysis of the potential effects of these other projects and activities
- a justified pathway diagram of the way that the proposed activity will affect the identified VECs
- assessment of the range, scope and duration of the effects of all the proposed projects on particular VECs

Significance

3. Significance of events

What is the significance of the overall cumulative environmental effects, including the effect of the project?

Is the combined effect of this project, in combination with the other projects and activities, near a “critical point” or threshold? Is this project likely to shift the VEC to an unacceptable state?

The assessor considers the overall stressors on the VEC (for example, a particular species) and how these stressors in combination are likely to affect the long-term survival of the VEC. Where there is sufficient research available to identify a “threshold”, the assessor estimates the incremental effects of the project and whether the threshold is reached or exceeded.

The incremental effects and the overall cumulative effect are considered in relation to criteria of “significance”. In proceeding to an evaluation of significance, the assessor needs to appreciate the criteria for significance used by the screener/reviewer.

Mitigation

4. Mitigation of effects

If this project, in combination with other projects in the area, is likely to create a “significant negative cumulative effect”, are there further mitigation measures that could reduce or eliminate the project’s contribution to these effects so that the combined effect does not threaten the VEC?

This is a consideration both for the assessor/proponent and for the screener/reviewer.

If the assessor finds that the cumulative environmental effects of this project in combination with others is likely to be significant, it is appropriate to consider further mitigation measures that could be taken to reduce or eliminate the effect. Such consideration must include the effectiveness, feasibility and cost of such measures.

This question highlights the iterative nature of the environmental planning and assessment process. If it appears likely to the assessor that the project as currently designed will leave “significant negative environmental effects”, cumulative or otherwise, the proponent should take a second look before submitting, to ensure that all feasible, effective and affordable mitigation measures are undertaken, and if not, give reasons why not.

Such measures may include:

1. mandatory restrictions imposed by “Laws of General Application”, regulations and guidelines
2. voluntary measures taken by the proponent (e.g., to use a different technology, or to change the timing of activity, or to commit to suspending activities in certain circumstances)
3. attachment by regulators of terms and conditions to specific authorizations that are required and that can be enforced
4. regional mitigation efforts

4. Reviewer Questions

4 What questions must be addressed by the screener/reviewer?

Recommendation of best practices

It is the proponent's job to conduct the primary analysis of potential environmental effects. The screener/reviewer has to consider the proponent's assessment and decide upon the validity of the assessment as a basis for a determination.

The following questions describe a logical sequence for the screener/reviewer to follow when assessing a proponent's work as a basis for a determination on the likelihood and significance of negative environmental effects (see Figure 4-1). The variations shown are provided as options to help the screener deal with cumulative effects issues as the science and practice of CEAM evolves.

Their sequence and content are based on an analytical framework for environmental assessment rather than a model of administrative procedure. Consequently, the sequence recommended may not fit conveniently into the existing guidelines and procedures and so may imply a change to such procedures, to the extent permitted by the mandate conferred by the IFA.

Adequacy of Project Description

1. Project Description

Does the Project Description provide a sound basis for an "adequate preliminary assessment"?

- Has the proponent developed a reasonable case regarding the environmental effects and cumulative effects?
- Are the assumptions about the extent of other activities in the area reasonable?
- Has the proponent provided an analysis of how the effects of the project may interact with the effects of other projects or activities?
- Has a reasonable effort been made, in proportion to the potential impact (intrusiveness, range of effects, duration of effect) of the project?
- Does the assessment satisfy the requirements for cumulative environmental effects assessment as set out formally and informally by the screener/reviewer?

Mitigation effort

2. Mitigation described

Has the proponent shown how the project's contribution to cumulative environmental effects will be avoided or mitigated?

Verification

3. Verification of Project Description

Do other information sources cast substantial doubt on the assessment provided in the Project Description?

In answering the preceding questions, the practice of the EISC is to solicit comment and information from other sources.

These sources include co-management bodies, and departments and agencies of government. Appendix A1 lists sources that, depending on the application, should be contacted for comment or information.

It is quite possible that comments from other sources may suggest that the Project Description is inadequate or wrong in a substantial way; i.e., in a way that the determination of the EISC would be affected.

Procedural fairness requires that the EISC reviews the information provided by other sources with the same critical standards as it applies to the Project Description. It is appropriate for the EISC to consider the validity of the information and its relevance to the determination of “significant negative environmental effects”.

In a situation of substantial contradiction with the Project Description, the screener/reviewer must decide on how to proceed, whether to accept the Project Description as a valid basis, or seek further information; for example, by returning the submission with deficiencies specified (OGP 5.3 (3))

In the specific case of cumulative effects assessment where there has been limited guidance to the proponent on assessment requirements and expectations, a flexible approach would enable the screener/reviewer to seek additional information from the proponent in a way that does not entail serious delays (e.g., through a variation on OGP s. 5.3(1) or 8.1).

4. Effects

Is the project likely to cause negative environmental effects on significant VECs in the ISR?

Based on the Project Description and other information, the screener/reviewer first must decide if significant VECs are likely to be negatively affected. This requires deciding what the significant VECs are.

5. Cumulative effects

Is the project likely to contribute to negative cumulative environmental effects, when the effects of this project are combined with those of other projects on specific VECs?

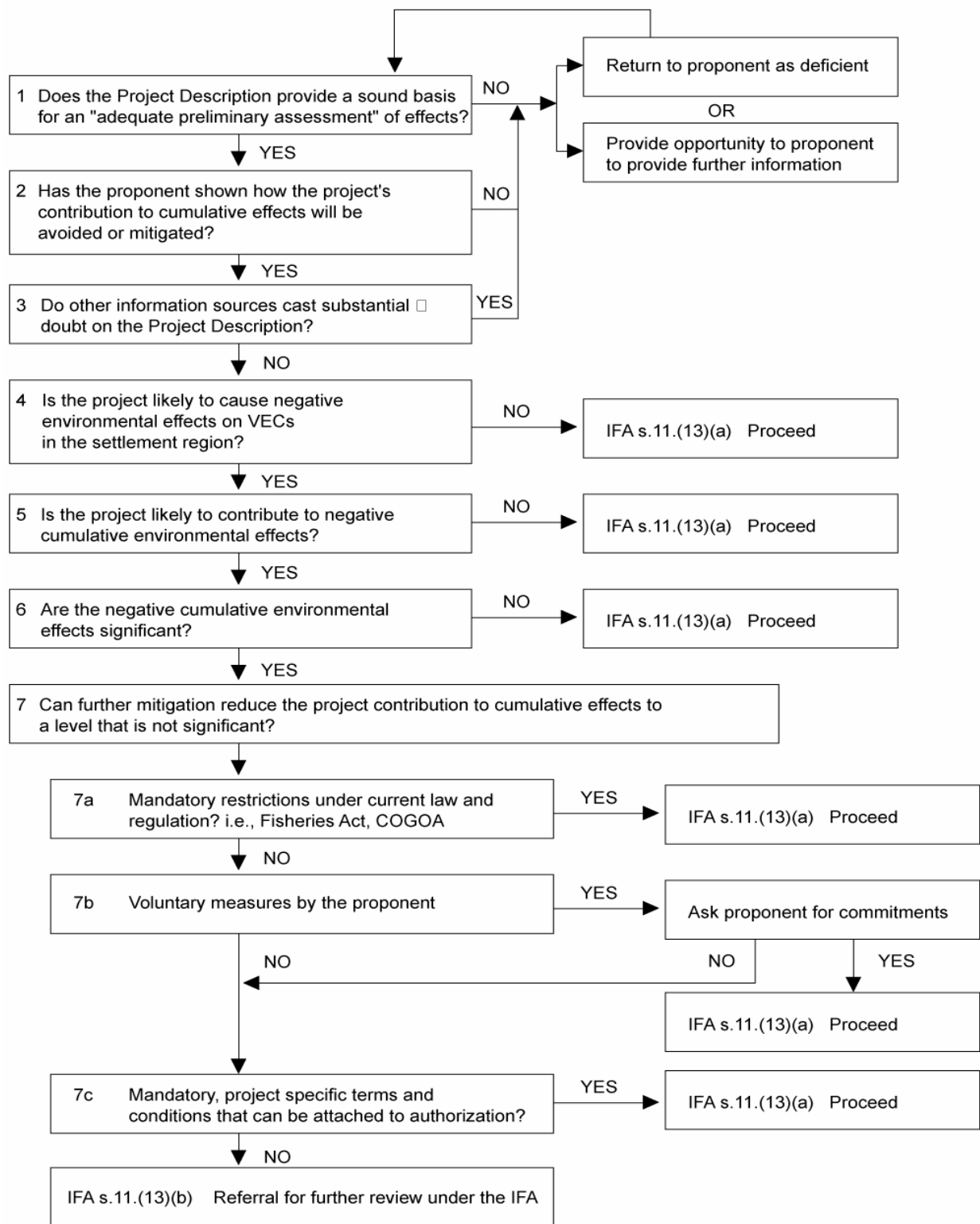
If the answer to Question 4 above is yes, the screener/reviewer must decide whether such effects will possibly combine with those of other projects.

6. Significance

If so, are these effects significant?

This is the most subjective, and also the most challenging question that the screener has to address. In the preparation of the Project Description, the proponent/assessor should have made an assessment of significance, based on the criteria provided to it by the EISC. This will form the basis of the EISC’s deliberation. If the EISC finds the information in the Project Description inadequate, then the deficiency is pointed out to the proponent/assessor and opportunity is given for the deficiency to be redressed through a new submission.

Figure 4-1 Sequence for Consideration of Cumulative Environmental Effects



Further mitigation

7. Mitigation of significant effects

If it appears likely that there will be significant negative cumulative environmental effects, can further mitigation measures be implemented that would effectively eliminate or reduce the effects so that they are no longer significant?

As mentioned above, this is an important question both for the assessor and for the screener/reviewer; however, the perspectives diverge.

Mandatory

Does the assessment fully take into account mandatory restrictions on all similar activities that are imposed by “Laws of General Application”, regulations and guidelines?

Legal requirements should have been taken into account during the preparation of the Project Description or Environmental Impact Statement. It is important for the screener/reviewer to know that the proponent understands the regulatory framework in which the project will operate.

At the same time, it is important for the screener/reviewer to understand the regulatory constraints on the proposed project. It is possible that a proponent may assume that the screener/reviewer knows that certain conditions (in the case of gas exploration activities for instance of the National Energy Board) will as a matter of common practice be imposed.

Voluntary

Are there further measures that the proponent could voluntarily commit to that would reduce the effects to beneath a threshold of significance?

For example, would commitments to use a different technology, or to change the timing of activity, or to commit to suspending activities in certain circumstances.

Can the project’s effects be mitigated through the attachment by regulators of enforceable terms and conditions to specific authorizations?

5. Screening Determination

5 How can the influence of the EISC screening determination be enhanced?

5.1 On what mitigation assumptions is the determination based?

Mandate of EISC

The mandate of the EISC is to conduct an environmental impact screening of a proposed development, and to provide the determination to the authority responsible for authorizing the development to proceed.

For some applications with apparently minimal impacts, the EISC may be confident that the subsequent regulatory review and authorization process will attach, pursuant to existing regulations and guidelines, terms and conditions that will adequately mitigate any effects.

For applications with more substantial potential for impacts, the EISC has to make a determination without knowing with certainty what terms and conditions will be attached to the authorization.

Question to ask

The question to consider is ***“can the potential effects of this project, including the contribution of the project to cumulative effects, be mitigated with proven technology?”*** If technology and methods are available for mitigation of effects to below a level considered significant by the EISC, then a positive determination should be returned.

If the EISC is concerned that the necessary mitigation may not be applied, it is important that their concerns be communicated to the regulator. A possibility that is still in keeping with the EISC interpretation of its mandate is for the determination to make explicit the assumptions about mitigation upon which the determination is made. For instance, it would be reasonable for a determination letter to comment that such determination is based on the assumption that certain operations will be suspended when a particular species is observed within a certain distance.

If the EISC concludes that the project could cause “significant negative environmental effects” and that the project’s contribution to cumulative environmental effects is significant and negative, then under 11 (31)(b) the EISC will refer the project to further review pursuant to the terms of the IFA.

5.2 How can the EISC, within its mandate, more effectively influence authorization decisions?

Terms and Conditions

The interpretation of the EISC’s mandate does not extend to the recommendation of terms and conditions for attachment to the regulatory authorization.

Decisions on terms and conditions for mitigation, for attachment to government authorizations, are made through the environmental assessment process under CEAA and the subsequent regulatory review processes by the federal authorities with legislative mandates in relation to the proposed development.

The responsible authority is required to ensure that an environmental assessment of at least the level of screening is undertaken, including an assessment of potential cumulative effects.

Decisions on terms and conditions for mitigation for attachment to authorization of activities on Inuvialuit 7(1)(a) and 7(1)(b) lands are made by the Inuvialuit Land Administration, which takes the results of screening and review (if undertaken) into account when making decisions.

The communication of the EISC determination under 11(13)(a) is an important contribution to environmental assessment under CEAA and will be taken into account in the responsible authority's (RA's) determinations (Sloan 2001). The EISC determination will be more effective in influencing the direction of the RA's assessment and recommendations if it provides useful guidance as well as focus.

In coming to a determination under 11(13), the EISC will have had to make certain assumptions regarding the mitigation described in the Project Description and mitigation that may be required in subsequent regulatory processes.

In communicating a determination to a federal authority, it is not beyond the EISC mandate to provide comment on:

- observations of matters of risk or sensitivity
- observations regarding the context of the assessment
- conclusions regarding the effects of the project and significance
- assumptions made in coming to the determination including those about the proponent's environmental management system
- uncertainties

5.3 What other procedural options are available to the EISC to advance CEA and management?

This Guide recommends the use of "process tools" available to the EISC to evaluate a project's contribution to cumulative environmental effects.

The available tools described in this guide are those to assist with the EISC's handling of a particular application:

- use of consultation between the EISC staff resource person and proponent to guide the level of effort of the proponent toward CEA
- development of the EISC definition of environmental effects to include cumulative effects
- clarify proponent's expectations and requirements for Project Description
- elaboration of screening determination (a) letter to ensure that the competent authority fully understands the basis for the determination
- request information from the RAs and federal authorities under CEAA on CEA and regional issues relevant to the project in question

In addition to measures taken in the course of a single project screening, the EISC may advance CEA, and ultimately management, through measures that build capacity more generically. For instance:

- by encouraging or participating in initiatives that improve the sources of information available to the EISC (and EIRB); e.g., mapping and database initiatives, including data feedback and verification from projects undertaken
- encouraging a CEA focus for research undertaken by agencies, co-management bodies, and the Environmental Studies Research Fund
- by using the relationship of IFA processes to environmental assessment processes under CEAA to draw on Canadian Environmental Assessment Agency resources and capacity to assess cumulative environmental effects
- develop protocols, or understandings, with the NEB regarding screening processes for oil and gas projects, with particular attention to CEA and monitoring
- explore potential for CEAA class screenings, and once CEAA amendments are passed, for area assessments that would provide a useful source of information
- when dealing with a number of applications for similar activities (for example, seismic exploration), investigate generic aspects of those activities relevant to CEA, in particular, the nature of the activity's stress on the environment and current "best practices" for mitigation of such effects
- develop an understanding through consultations with regulators and the ILA of the typically applied regulatory constraints on such activities

6. Review

6 How may the EIRB advance CEA?

Environmental impact review by the EIRB

The IFA requires the EIRB to review expeditiously all projects referred to it. On the basis of the evidence and information before it, the EIRB must recommend to the government authority competent to authorize the development whether or not the development should proceed; and if so, what terms and conditions should be applied and enforced by that authority, including mitigative and remedial measures and appropriate monitoring requirements. To date, most applications have been dealt with fully by the EISC, without further review required under the IFA.

Opportunity to recommend mitigation

The EIRB is therefore able to be precise (in comparison to the opportunities afforded to the EISC) regarding the terms and conditions that should be applied to mitigate effects of the project and the project's contribution to cumulative effects. These recommendations are given some force by the requirement that the governmental authority consider them, and to give reasons for varying from them. There is also an opportunity for the role of the EIRB to be enhanced in cases of substitution for a panel review process under CEAA.

With or without substitution under CEAA, the recommendations for terms and conditions for mitigation or follow-up are just that, recommendations and may not be completely accepted or implemented. Other factors are taken into consideration in the Crown's final decisions.

While the final decision and the specific regulatory authorization process is beyond the control of the EIRB, the EIRB decision will have considerable weight. This is an important opportunity to propose mitigation and follow-up measures that will moderate cumulative environmental effects. This opportunity is especially important when dealing with cumulative environmental effects, because the uncertainties in assessment are great.

Precautionary principle

Where there is uncertainty in the assessment, the precautionary principle requires that extra effort be applied to management of effects, to mitigate as thoroughly as possible the effects of the project, and to ensure that information on the effectiveness of mitigation feed back into improving management practice.

Considerations when making recommendations

There are some constraints on the recommendations that the EIRB can make in relation to a project and its cumulative effects. Generally, recommendations are more likely to be adopted if they are feasible, realistic and well justified. In the mandate defined by the IFA for review of specific projects, and in legal practice, a proponent cannot be held accountable for the effects of other projects or activities, but only for the contribution that their project may make to cumulative effects. It is also important for recommendations for terms and conditions to be attached to authorizations of a project to bind the proponent alone, and not require actions by other parties beyond the control of the proponent. It is possible to direct recommendations to other parties, (for instance for government to develop regional cumulative effects assessment and management initiatives) although a decision on the project cannot be made contingent on such recommendations.

Feedback

In light of the evolving nature of cumulative effects assessment and management practice in the ISR and elsewhere, assessors such as the EISC and EIRB acutely need feedback from projects that go ahead in order to evaluate the effectiveness of mitigation, and to monitor indicators related to critical thresholds.

Recommendations for monitoring, feedback and follow-up should be well received, given the priority of these considerations in CEAA legislation and processes. Authorizations issued by the NEB typically include requirements for monitoring and provision of feedback data. Recommendations for such stipulations will be more readily accepted if the onus on the proponent is in keeping with the range of project-specific effects. Monitoring and feedback will be important to the EIRB as well as federal authorities in assessing effectiveness of mitigation, and providing a basis for adjusting mitigation standards and guidelines.

Options

In addition to undertaking reviews of specific proposed developments referred to it, the EIRB has other avenues for developing CEA in the ISR:

- option to call for class assessments on own motion to provide information on the activity, VEC effects, cumulative effects processes and best practices
- use the relationship of IFA processes to CEAA to build the IFA capacity to assess cumulative effects
- explore potential for class screenings under CEAA, and once amendments to CEAA are passed, to area assessments

7. Bibliography

7 Bibliography

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KAVIK-AXYS. 2001. *Cumulative Effects Assessments in the Inuvialuit Settlement Region*. Prepared for the Environmental Impact Screening Committee and the Environmental Impact Review Board by KAVIK-AXYS, Inuvik, NWT.

IUCN. 1993. *Oil and gas exploration and production in Arctic and Subarctic Onshore Regions*. International Union for the Conservation of Nature (IUCN) and Natural Resources Gland, Switzerland and Cambridge UK, with the Oil Industry International Exploration and Production Forum UK. viii plus 56 pp. ISBN 2 – 8317 – 0188 – 0.

Memorandum of Understanding between EIRB and the Minister of the Environment Concerning Approvals for Substitution of Process, March 9, 2000.

National Energy Board. 2001. *Reasons for Decision In the Matter of Enbridge Pipelines Inc. Terrace Expansion Program Phase II*. Publication Number OH-1-2000.

Sloan, J.E. 2001. *A Guide to Regulatory Approval Processes for Oil and Natural Gas Exploration and production in the Inuvialuit Settlement Region*, The Regulatory Roadmaps Project.

Study Group on Environmental Assessment Hearing Procedures. 1988. *Public Review: Neither Judicial, Nor Political, But an Essential Forum for the Future of the Environment*.

A1 List of Referrals

Appendix 1 List of referrals and other sources

Inuvialuit co-management institutions

- Wildlife Management Advisory Council (NWT or North Slope)
- Fisheries Joint Management Committee

Inuvialuit institutions

- Hunters' and Trappers' Committees for each community
- Inuvialuit Game Council
- Community Corporation (in each community)
- Inuvialuit Land Administration (for activities on Inuvialuit-owned lands)

Departments and agencies of the Federal Government

- National Energy Board
- Department of Indian Affairs and Northern Development
- Department of Fisheries and Oceans
- Environment Canada - Canada Wildlife Service and Environmental Protection Branch

Departments of the Government of the NWT

- Resources Wildlife and Economic Development

NWT Boards, etc.

- Porcupine Caribou Management Board
- International Porcupine Caribou Management Board
- Inuvialuit-Inupiat Polar Bear Commission
- Inuvialuit-Inupiat Beluga Whale Commission
- The Arctic Council

For activities that may have effects that extend beyond the boundaries of the Settlement Region

- Gwich'in Renewable Resources Board
- Sahtu Renewable Resources Board
- Nunavut Wildlife Management Board
- Gwich'in Tribal Council
- Gwich'in Water Board

- Mackenzie Valley Environmental Impact Review Board
- Mackenzie Valley Land and Water Board
- Sahtu Tribal Council
- Sahtu Land and Water Board

Considerations

For activities that are also subject to CEAA, request comment on cumulative effects assessment from the RA. The RA has the responsibility to ensure that cumulative effects are taken into consideration in the environmental assessment process under CEAA, in which the EISC Determination will be taking account.

Other sources

Community conservation plans

Check the land use priority assigned to the area in each of the adjacent community conservation plans. A compilation map showing any overlapping of land use categories would be helpful as a quick reference to flag particular issues of concern. As with any source used by the EISC, the data and assumptions underlying the designation of the land use category need to be considered. These categories are a strong indicator of the value placed on these areas, and the perceived sensitivity of the VEC, but they are not conclusive or specific about any particular activity. In order to screen activities in any particular conservation category, the nature, timing, duration of the activity and the specific location within the regional scale of the conservation plan have to be taken into account.

Wildlife management/recovery plans for:

- grizzly bear
- Cape Bathurst and Bluenose caribou
- Peary caribou
- Beaufort Sea beluga

For oil and gas exploration and production activities

IUCN. 1993. *Oil and gas exploration and production in Arctic and Subarctic Onshore Regions*. International Union for the Conservation of Nature (IUCN) and Natural Resources Gland, Switzerland and Cambridge UK, with the Oil Industry International Exploration and Production Forum UK.

Sloan, J.E. 2001. *A Guide to Regulatory Approval Processes for Oil and Natural Gas Exploration and Production in the Inuvialuit Settlement Region*. The Regulatory Roadmaps Project.

Previously conducted environmental impact assessments that are relevant

- Environmental Impact Review Board. 1990. *Public review of the Gulf Canada Resources Limited Kulluk drilling program, 1990 – 1991*. Inuvik, NWT: The Board.
- Environmental Impact Review Board. 2000. *Public Review of Kunnek Resource Development Corporation's "Revitalization of the Western Arctic Reindeer Herd" Proposal*. Inuvik, NWT: The Board.

