# Measuring Public Concern

(Presented at the International Association for Impact Assessment annual conference, May 2005, Bosten, MA)

Martin Haefele, Mackenzie Valley Environmental Impact Review Board, Box 938 Yelloknife, NT X1A 2N7, Canada, tel. (867) 766-7053 fax (867) 766-7074, mhaefele@mveirb.nt.ca

#### **Abstract**

Environmental Impact Assessment legislation in Canada uses not only the likelihood of significant adverse environmental effects but also public concern as decision triggers. For instance, the *Canadian Environmental Assessment Act* and the *Mackenzie Valley Resource Management Act* both allow "public concern" to trigger a higher level of impact review. It follows that determining the level of public concern is of similar importance as determining the significance of environmental effects. One might then expect the methods to measure public concern to be similarly well developed as those used to predict environmental effects.

Environmental impacts are commonly measured through indicators including likelihood, geographic extent, duration, frequency, and magnitude. Government agencies, e.g. the Canadian Environmental Assessment Agency, have published guidance documents on how to determine significance of environmental effects. The situation is different, however, for public concern where little to no official guidance exists.

Using several recent examples in Canada's North this paper first shows how the measurement of public concern can vary widely from project to project. It also provides a brief scan of official guidance documents in Canada to assess what tools are recognized for assessing public concern. The paper then discusses the merits and pit falls of applying indicators such as frequency, geographic extent, and magnitude to public concern. Finally the paper determines that research into measuring public concern is warranted.

#### Introduction

This paper is an initial exploration of how the level of public concern over a proposed development is determined in an environmental impact assessment. Essentially the paper tries to determine whether there is a need for research in this area. It does this by addressing the following questions:

- 1. How important is it to measure the level of public concern in an impact assessment?
- 2. How is public concern measured in practice?
- 3. What guidance is given to EIA practitioners for measuring public concern?
- 4. What criteria, if any, could be used to evaluate the level of public concern?

In terms of the practice of EIA the paper focuses entirely on the Mackenzie Valley. It does, however, take into account official guidance documents that exist in other parts of Canada.

The document first presents a very brief overview over the Mackenzie Valley and the EIA process in the Mackenzie Valley in general. It discusses public concern as decision trigger in the EIA process and describes how the significance of public concern has been determined at various levels of impact assessment. Then the document provides a superficial analysis of available EIA guidance documents in various Canadian jurisdictions. The document identifies three sets of criteria that may be used to evaluate public concern and discusses their merits and limitations. Finally, the document provides conclusions and a rudimentary outline of a possible research program.

# **Background**

# The Mackenzie Valley

The Mackenzie Valley, situated in northern Canada (see figure 1), covers an area of France and Spain combined. The Mackenzie Valley stretches from 60 degrees latitude in the south to roughly 69 degrees 20 minutes latitude in the north. It is marked by long cold winters and relatively cool short summers. Much of the area is comprised of either boreal forest or tundra, with alpine area existing in the western portion of the valley. The Mackenzie River drains about one fifth of Canada.

The population of this area is less than 40 000, about half of which are aboriginal, mostly Dene or Metis. Nearly half of the population lives in the capital of the Northwest Territories, Yellowknife. Oil and gas exploration and extraction together with mineral exploration and mining are the driving forces behind the economy. However, tourism, which is catering to hunters, anglers and nature lovers, as well as traditional aboriginal subsistence harvesting play an important role.

With world wide high demand for hydrocarbons and minerals in recent years, as well as significant diamond discoveries, the Mackenzie Valley is experiencing an economic boom. With this boom come considerable development pressures in an area that features little infrastructure and many of which's residents still see a traditional aboriginal life style as important part of their life. Several aboriginal groups in the Mackenzie Valley are currently negotiating land claim settlements with the government of Canada, while others have settled theirs over the past decade.



Figure 1: Overview Map

## EIA in the Mackenzie Valley

Following the settlement of the Gwich'in and Sahtu comprehensive land claim agreements in 1993 and 1994, the Canadian government enacted the *Mackenzie Valley Resource Management Act* (MVRMA) in 1998. The MVRMA provides for an integrated resource management system, transferring responsibility for many resource management decisions and for environmental impact assessment to co-management boards. These boards consist half of nominees from aboriginal groups and half of nominees from government. Generally members are residents of the Mackenzie Valley. With the enactment of the MVRMA the *Canadian Environmental Assessment Act* (CEAA) no longer applies in the Mackenzie Valley, except in certain circumstances, e.g. transboundary projects.

The MVRMA introduced a system for environmental impact assessment consisting of Preliminary Screening, Environmental Assessment, and Environmental Impact Review (see figure 2). Preliminary Screening is the responsibility of each regulatory authority. The majority of permits or licenses requiring a screening are issued by a Land and Water Board, a co-management board under the MVRMA. Other screeners include the federal Department of Fisheries and Oceans, various territorial departments, and in settled areas first nations. The Mackenzie Valley Environmental Impact Review Board (MVEIRB) is responsible for all Environmental Assessments and Environmental Impact Reviews.

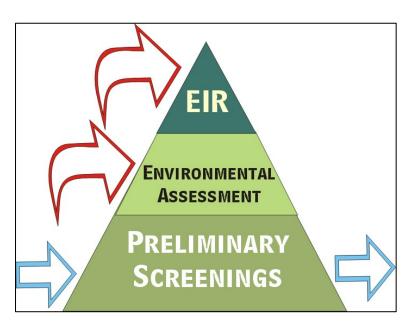


Figure 2: EIA Process Overview

The MVEIRB is a co-management board and functions as an administrative tribunal, i.e. in a court like fashion. The EIA process in the Mackenzie Valley is open and transparent; it is largely driven by participants to an Environmental Assessment or Environmental Impact Review. Unlike CEAA, the MVRMA mandates an assessment of direct social and cultural impacts and "regard to the economic well being of the residents of the Mackenzie Valley".

## Public Concern as Decision Trigger

Section 20(1) of the CEAA enables the responsible authority for a screening to refer the development to the Minister of Environment for mediation or a panel review, where public concern warrants it. Similarly, section 25 gives the responsible authority the discretionary power to "request the Minister to refer the project to a mediator or a review panel" where "public concerns warrant a reference to a mediator or a review panel". Finally section 28(1) gives the same discretionary power to the Minister of Environment himself.

Section 125(1) of the MVRMA requires a preliminary screener to "(a) determine and report to the Review Board whether, in its opinion, the development [...] might be a cause of public concern; and (b) where it so determines in the affirmative, refer the proposal to the Review Board for an environmental assessment." According to MVRMA s. 128, the MVEIRB is enabled to "where the development is likely in its opinion to be a cause of significant public concern, order that an environmental impact review of the proposal be conducted".

Under both pieces of legislation public concern can trigger a higher level of scrutiny for a proposed development. Within a CEAA screening, a MVRMA preliminary screening, or an MVRMA environmental assessment, the presence of public concern can result in a referral of the project just as a likelihood of significant environmental effects can. It should follow, then, that determining the presence of public concern that *warrants a referral* or is *significant* is equally important as determining the likelihood of significant adverse environmental effects.

## **Real Life Decisions**

#### Northrock Resources

In 2002 Northrock Resources applied to the Sahtu Land and Water Board (SLWB) for a Land Use Permit and a Water Licence to drill an exploratory oil and gas well approximately 100 km from the community of Tulita, NT. The SLWB conducted a preliminary screening and concluded that the proposed development was not likely to have significant adverse impacts on the environment. The SLWB also concluded, however, that the proposed development was likely to "be cause for significant public concern". Consequently the SLWB referred the development to the MVEIRB for an environmental assessment.

According to the SLWB's preliminary screening report the conclusion that significant public concern might exist was based on letters from the Tulita District Land Corporation, the Fort Norman Metis Land Corporation, both representing aboriginal landowners, and the Tulita Renewable Resource Council, representing the interests of aboriginal subsistence harvesters. The three organizations expressed a desire to use a different access route, and voiced concerns over a lack of harvester compensation and the potential to disturb culturally significant areas. In this instance the decision maker deemed three letters from local organizations as sufficient evidence for significant public concern.

#### Canadian Zinc

In 2001 the Mackenzie Valley Land and Water Board (MVLWB) conducted a preliminary screening of an application by Canadian Zinc to conduct underground exploration and to operate a pilot plant at its Prairie Creek property approximately 32 km upstream of the Nahanni National Park Reserve. The MVLWB concluded that the proposed development might have significant adverse impacts on the environment, and that the development might be cause for significant public concern.

In its environmental assessment the MVEIRB then had to decide whether the proposed development was indeed likely to be cause of significant public concern. The MVEIRB heard from the closest Dene band, the Nahanni Butte Dene band, that they were not concerned about the development. The Pehdzeh Ki Dene Band, located further downstream, as well as the Deh Cho First Nation, which represents 10 bands in the Deh Cho region, including Nahanni Butte, expressed "significant concerns" about the

development. Moreover, in the course of the assessment the MVEIRB received 37 letters of concern from local residents as well as from several other countries.

In the end, the MVEIRB decided that the development was not likely to be cause for significant public concern. In this instance 38 letters from organizations and individuals representing local, regional, and international interests did not convince the decision maker that significant public concern exists.

## Mackenzie Gas Project

In December 2003 the MVLWB referred an application for a portion of a large pipeline development to environmental assessment. Following the MVLWB's referral the MVEIRB conducted an environmental assessment and scoped the development to include the entire Mackenzie Gas Project, a 1300 km pipeline and associated gathering and processing facilities.

The first phase of the environmental assessment was designed to gauge the level of public concern to determine whether an environmental impact review, i.e. the highest level of impact assessment available under the MVRMA was required. Following a series of public hearings the MVEIRB determined that the proposed development was likely to be cause for significant public concern. Consequently the MVEIRB ordered that an environmental impact review be conducted. This review is currently ongoing as a joint panel review with the Inuvialuit Game Council, the Canadian Environmental Assessment Agency, and the National Energy Board.

Before reaching a conclusion on the level of public concern the MVEIRB conducted multiple hearings in three different communities and actively solicited written input from the public. In total 86 organizations, institutions, and individuals made over 650 statements of concern to the MVEIRB.

In gauging the level of public concern the MVEIRB considered the following criteria:

- Frequency of concern: a simple measure of how often an issue, e.g. impacts on wildlife, was raised.
- Geographic distribution: level and nature of concern varied within the Mackenzie Valley and between Mackenzie Valley residents and national and international organizations or individuals.
- *Source:* MVEIRB considered differences in the nature or "quality" of concerns expressed by individuals, organizations representing a group of individuals, and institutions representing various interests, such as municipal governments.

• Severity of concern: in addition to a value judgment about the severity, or magnitude, of a concern the MVEIRB also considered the extent to which an organization or individual went to express the concern, e.g. by incurring considerable costs to participate in a hearing.

These three examples show that the level of public concern that "warrants a referral" can vary considerably from impact assessment to impact assessment. Concern expressed by a few local groups may warrant a referral, concern expressed by dozens of organizations and individuals may not. The examples also show that the methods used to gauge the level of concern vary considerably. In the first two cases the decision makers relied entirely on submissions from parties to the assessment or the public, while in the third example the decision maker went to great lengths - and expense - to solicit input from government departments, non-governmental organizations, aboriginal groups, communities, and the public.

Similar variation in the level of effort to gather evidence for public concern probably exists in other parts of Canada. CEAA, for instance, does not have a requirement for public participation at the preliminary screening level. The level of public involvement, if any, is at the discretion of the authority conducting the screening.

### Guidance

For the purpose of this initial examination eleven guidance documents were selected based on easy access through a web search. They were examined for any guidance or advice on determining the level or significance of public concern. The selection of guidance documents is by no means complete. Nevertheless, a trend became clear. Most official guidance documents do not provide any guidance on how to measure public concerns, although many do point out that public concern needs to be considered. Of the examined documents only the MVEIRB's EIA Guidelines contain real practical advice on determining the significance of public concern. But even they provide guidance only at the lowest level of impact assessment and only in a relatively general and brief form.

More detailed findings are provided in Appendix 1.

### **Possible Criteria**

From the case studies and guidance documents three sets of possible criteria emerge: the CEAA Reference Guide's criteria for significance of adverse environmental effects, the MVEIRB's Guidelines on preliminary screening, and the MVEIRB's approach to gauging the level of concern in the Mackenzie Gas Project environmental assessment (MGP EA). Table 1 presents the indicators in comparison. The CEAA reference guide does not purport to give any guidance on determining significance of public concern. However, its criteria are widely used in Canadian EIA and have formed the basis for the MVEIRB's EIA Guideline criteria. Both the MVEIRB EIA Guideline criteria and the MGP EA criteria were specifically designed to gauge public concern.

CEAA Guide	MVEIRB Guidelines	MVEIRB MGP EA
Magnitude	Development scale	Frequency of concern
Geographic extent	• Proximity to community	<ul> <li>Geographic extent (distribution) of concern</li> </ul>
Duration	<ul><li>New technology</li><li>Severity of worst case scenario</li></ul>	<ul> <li>Source of concern (individuals, associations, institutions,</li> </ul>
<ul><li>Frequency</li></ul>		
<ul> <li>Reversibility</li> </ul>	• Proximity to sensitive	• Severity of concern (e.g.
<ul><li>Ecological context (sensitivity)</li></ul>	<ul><li>Proximity to harvesting area</li></ul>	effort by public to voice concerns)

There are some obvious similarities between the three approaches. For instance the MVEIRB Guidelines use proximity to communities, sensitive areas or harvesting area, which may be considered more or less equivalent to the ecological context in the CEAA Guide. Both CEAA and the MGP EA use frequency and geographic extent as criteria. Severity of concern in the MGP EA may be considered equivalent to magnitude in the CEAA Guide. Naturally, there are some striking differences was well. The MVEIRB Guidelines, e.g. put a lot more emphasis on the receiving environment (proximity criteria) than the others. Unlike the MVEIRB Guidelines or the MGP EA, the CEAA approach considers reversibility.<sup>1</sup>

\_

<sup>&</sup>lt;sup>1</sup> The MVEIRB effectively, however, considers reversibility of public concern in that it has frequently considered mitigation against an impact that is the basis of public concern as mitigation against the public concern.

#### Merits and Limitations

Table 2 presents a compilation of some merits and limitations of each of the three sets of criteria.

#### **CEAA Reference Guide**

- + Well established criteria for impacts; if they could be transferred to public concern it would allow use of a single set of criteria in an EIA.
- + Some criteria are measurable or at least allow ranking. This can improve the transparency of decision making.
- Criteria were never developed with gauging public concern in mind.
- Duration and reversibility difficult to apply to public concerns.
- Geographic extent criteria does not take into account distribution of concerns.
- Use of measurable criteria may cause false sense of accuracy; value judgments hidden.
- Requires extensive public involvement.
- Use of measurable criteria problematic as public input is neither a systematic measurement nor a random sample.

#### **MVEIRB Guidelines**

- + Developed specifically to address public concerns.
- + Emphasis on receiving environment and unknown technology, i.e. issues most likely to concern the public
- + No pretense of scientific accuracy; value judgments in the open
- + Criteria are independent from submissions, a likelihood of public concern may be determined without need for extensive public input.

- Criteria have not been "field tested".
- Does not lend itself to measurements which can limit transparency.
- depends almost entirely on value judgments.
- Does not really have a way of responding to submissions from the public.
- Open to influence from decision makers views; significance may be determined despite the absence of any public input.

#### **MVEIRB MGP EA**

- + Combination of quantitative and qualitative analysis allows for good transparency in decision making process.
- + Distribution and source criteria take into account that different concerns may exist at local, regional, national or international level, between locales and regions, and between individuals, organizations and institutions.
- + Criteria based on actual submissions, not data made to fit arbitrary criteria

- Use of quantitative methods may cause false sense of accuracy; value judgments sometimes hidden.
- Requires extensive public involvement.
- Although the approach to gathering public input may be called systematic, it does not represent a random sample. This limits quantitative analysis.

#### **Table 2: Merits and Limitations of Potential Criteria**

+ denotes an advantage, - denotes a disadvantage

The CEAA Reference Guide criteria are obviously not directly transferable to determining the significance of public concern. Not only are the criteria not designed with public concern in mind, this set of criteria requires a considerable amount of public input to be useable at all. Without fairly extensive public participation criteria such as geographic extent are meaningless. Any kind of quantitative analysis requires a large number of submissions from the public. Unfortunately, public participation is usually lowest in preliminary screenings, whether under CEAA or the MVRMA, whereas the significance determination of public concern is most important at this level.

The MVEIRB's EIA Guideline criteria are strictly qualitative and do not allow quantitative analysis. Thus they do not create a potentially false sense of scientific accuracy and do not violate any mathematical rules. Developed specifically for preliminary screening they do not require extensive public involvement. On the other hand, they depend largely on value judgments by the decision maker and do not facilitate transparency in decision making. One might argue that this particular set of criteria would allow a decision maker to find that a project is likely to be cause of significant public concern, without any public involvement, thus leaving the decision entirely to the discretion of the regulatory authority.

The criteria used in the MGP assessment employ a combination of qualitative and quantitative analysis. This particular set of criteria was developed after an extensive public involvement process to fit the empirical findings. It proved to be quite appropriate

for the particular assessment and provided a great degree of transparency without relying too heavily on qualitative criteria. It remains to be seen, however if the same set of criteria will be as appropriate for other projects. The requirement for extensive public input excludes it from widespread application in preliminary screening.

#### **Conclusions**

Given the legislative reality in Canada, environmental impact assessment must consider the level of public concern over a proposed project, particularly at lower levels of EIA. Here the effect of 'significant public concern' is the same as that of 'significant adverse environmental effects'. The examples shown indicate that there is a lack of consistency in terms of the methods used and in terms of the decisions made regarding the significance of public concern. The analysis of guidance documents further showed that in Canada no guidance exists that is readily accessible to all practitioners. The latter may lead one to speculate that a systematic and consistent approach to measuring public concerns lacks not only in the Mackenzie Valley but across Canada.

There is evidence that the determination of public concern is ad hoc, subjective, and not always grounded on sound principles. The same may be said for the determination of a significant environmental effect since such a determination is always based on a value system. However, well researched methods and easily accessible guidance documents exist to guide the practitioner in the determination whether significant impacts are likely. If one is to conclude that determining the likelihood of significant public concern is of similar importance to determining the likelihood of significant impacts, one requires similarly well developed methods and guidance.

This paper discussed three possible sets of criteria for gauging the level of public concern. While each set has merits, each also has severe limitations. The CEAA Reference Guide criteria are not easily transferable to public concern, the MVEIRB Guidelines may be viewed as too subjective, and the MVEIRB's approach to the MGP EA requires a level of public input that is rarely available at the level of EIA where public concern could warrant a referral to a higher level.

In short, work needs to be done to improve measuring, or gauging, public concern in the Mackenzie Valley and probably elsewhere. Research into this field is warranted.

## **Outlook**

A future research program may follow this rough outline:

- An examination similar to the one presented here across various jurisdictions outside Canada to determine whether similar triggers exist elsewhere. If so, an examination of guidance documents available in the appropriate jurisdiction.
- A literature search.
- An examination of a representative sample of CEAA and MVRMA proceedings for their treatment of public concern. This will establish the status quo of how public concern is dealt with in Canada and will reveal the true variation from project to project of how public concern is gauged. This analysis will also reveal any differences that may exist between CEEA and MVRMA proceedings. The analysis may also be extended to other jurisdictions.
- Ideally the research would include an experiment with several groups of "decision makers". One would use the status quo approach, one each would use the approaches outlined above alone, and one would have access to all approaches and an option to combine as needed. At the very least such an experiment would reveal whether or not the different approaches actually lead to different results.
- Any further steps would be determined by the outcomes of the steps outlined above.

The first item is relatively straight forward and can be achieved without investing significant time and resources. The third and fourth items, however, represent a sizeable research project that is beyond the means of a small organization like the MVEIRB which does not have a research oriented mandate.

## **Citations**

- Sahtu Land and Water Board (2003): *Preliminary Screening Report S0A-004/S02L1-003*Northrock Resources, March 17, 2003. <a href="https://www.slwb.com">www.slwb.com</a>
- Mackenzie Valley Environmental Impact Review Board (2002): Report of Environmental Assessment On the Canadian Zinc Corporation Underground Decline/Exploratory Drilling and Metallurgical Pilot Plant Developments, January 22, 2002 <a href="https://www.mveirb.nt.ca">www.mveirb.nt.ca</a>
- Mackenzie Valley Environmental Impact Review Board (2004): Reasons for Decision and Scoping Report for the Environmental Assessment of the Mackenzie Gas Project (Mackenzie Valley Pipeline), May 21, 2004. www.mveirb.nt.ca
- Government of Canada (2003): Canadian Environmental Assessment Act, November 2003. www.ceaa.gc.ca
- Government of Canada (1998): *Mackenzie Valley Resource Management Act*, December 1998. www.mveirb.nt.ca
- Canadian Environmental Assessment Agency (2003): Reference Guide Determining Whether A Project is Likely to Cause Significant, October 28, 2003. www.ceaa.gc.ca
- Mackenzie Valley Environmental Impact Review Board (2004): *Environmental Impact Assessment Guidelines*, March 2004. <a href="www.mveirb.nt.ca">www.mveirb.nt.ca</a>

# **Appendix 1 – Guidance Document Analysis**

**Title**: Operational Policy Statement – Establishing the Scope of the Environmental Assessment

**Source**: Canadian Environmental Assessment Agency

**Contents**: The expectations of stakeholders including proponent, public, other jurisdictions, interest groups and aboriginal groups are to be considered in determining the scope.

**Summary**: No guidance on measuring public concern (or expectations).

**Title**: Reference Guide: Determining Whether A Project is Likely to Cause Significant Adverse Environmental Effects

**Source**: Canadian Environmental Assessment Agency

Contents: Public input into the determination of the likelihood of significant adverse environmental effects must be limited to questions related to scientific analysis and interpretation. Values cannot be introduced into the determination. Public concerns and values are given prominence elsewhere in the EA process and "can prompt the EA process to take a closer look at the project".

**Summary**: Document acknowledges that determining public concern is fundamentally different from determining environmental effects. No guidance on measuring public concern given.

**Title**: The Citizen's Guide Canadian Environmental Assessment Process

**Source**: Canadian Environmental Assessment Agency

Contents: Public concern can trigger further review. Public involvement in a screening is at the discretion of the responsible authority. In a comprehensive study review the responsible authority may hold a public meeting and may provide the public with an opportunity to contribute information. Public must be given opportunity to review and comment on the comprehensive study report before decisions are made. Mediations are not usually open to the public, but a public information process may be part. In a panel review the public can be given opportunity to provide input at various steps, e.g. at scoping meetings or

hearings. The document details under what circumstance and how the public can make submissions to a panel review, including such things as written briefs, oral presentations, and cross examinations.

**Summary**: The document describes under what circumstances and how the public can get involved in the EA process. It does not give any guidance on how the public's input will be used or on how public concern can be measured.

**Title**: Guide to the Preparation of a Comprehensive Study for Proponents and Responsible Authorities

**Source**: Canadian Environmental Assessment Agency

Contents: There is no requirement in the CEAA to consult the public during the preparation of a comprehensive study. Meaningful public participation is, however, supported. The document contains detailed information (two pages worth) on making documents public and on receiving comments from the public. It also contains some information (six lines worth) on how to review public comments. Agency staff will "analyze the comments received and, where possible, attempt to facilitate the resolution of disagreements that otherwise might require the project to be referred [...]".

**Summary**: The document provides information on the mechanics of providing information to and receiving comments from the public. It contains some general information on comments being analyzed, but it does not provide any guidance on how to measure or even determine the presence of concern.

**Title**: The Canadian Environmental Assessment Act Reference Guide on Physical and Cultural Heritage Resources

**Source**: Canadian Environmental Assessment Agency

**Contents**: The guide applies only to "tangible" cultural heritage resources (i.e. physical objects). The public's views on cultural resources are to be considered when determining the importance of a resource. The document suggests consideration of whether members of a community demonstrate concern about a project, how they value their cultural resources and how they will view those resources being affected.

**Summary**: Some guidance is given in terms of the decisions for which public concern/opinion is relevant as well as some guiding question on considering public input. No guidance on actually determining the level of public concern.

**Title**: Alberta's Environmental Assessment Process

**Source**: Alberta Environment

**Contents**: The document provides a general overview over the EA process.

**Summary**: No guidance on measuring public concern.

Title: Albert Environmental Assessment Regulations

**Source**: Government of Alberta

**Contents**: The regulations require that public concern be recorded and tracked.

**Summary**: No guidance on measuring public concern.

Title: Summary Guide to the British Columbia Environmental Assessment Process

**Source**: BC Environmental Assessment Office

**Contents**: The document provides a general overview over the EA process in

BC. Public concern can trigger a higher level of EA.

**Summary**: No guidance on measuring public concern.

Title: Environmental Impact Assessment Guidelines

**Source**: MVEIRB (in consultation with various government departments)

Contents: The document provides a detailed overview of the EIA process in the Mackenzie Valley. In the section on preliminary screening it includes guidance on determining public concern. The guidelines draw parallels to the determination of significant impacts and suggest the following criteria: development scale, proximity to communities, new technologies, severity of worst case scenario, proximity to protected or sensitive area, areas known for harvesting. The guidelines state that the number of submissions should not be used as main criteria. The document also discusses the geographical distribution

of submissions. E.g. for developments near a National Park submissions from other parts of Canada should be considered of equal weight to local submissions, while in other cases local views may override concern expressed elsewhere.

**Summary**: There is some guidance on how to measure public concern. However, guidance is only given at the preliminary screening level.

**Title**: Public Consultation Strategy/Framework for Lower Mainland Infrastructure Projects.

**Source**: BC Environmental Assessment Office

**Contents**: The document provides information on how a public consultation process should be organized and discusses various options and the responsibilities of the Assessment Office and the developer.

**Summary**: No guidance on measuring public concern given.

**Title**: A Guide to Preparing Terms of Reference for an Application for an Environmental Assessment Certificate

**Source**: BC Environmental Assessment Office

**Contents**: The document provides guidance to developers on how to create a terms of reference for an environmental assessment, including impact prediction. The guide recommends to developers to conduct public consultations. The term public concern is not used at all in the document.

**Summary**: No guidance on measuring public concern given.