ENVIRONMENTAL ASSESSMENT THROUGH COMPREHENSIVE STUDIES AND REVIEW PANEL PROCESS OPTIONS UNDER THE CANADIAN ENVIRONMENTAL ASSESSMENT ACT: A COMPARATIVE REVIEW OF PUBLIC INFLUENCE IN THE EA PROCESS

By

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DEDICATION

I dedicate this thesis to my late Dad Mr Chongatera, and to my mom Bazaayira Chongatera who understood the value of education even though they did not have formal classroom education, and to my big brother Roland Chongatera for your encouragement and support in many diverse ways to my education.

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ABSTRACT

Public participation is a central objective of environmental assessment process and a means by which the concerns and interests of the public are considered before a project proceeds. However, there have always been concerns as to the real influence of the public in the environmental assessment process. Using a qualitative comparative case study approach, this study considered two types of assessment established in the Canadian Environmental Assessment Act, comprehensive studies and review panels, to understand which of the two process options results in more meaningful consideration of intervenor concerns. The results indicate that though proponents were responsive to intervenor comments during comprehensive studies, panel reviews resulted in more uptake of intervenor concerns. On the issue of which process option provided more opportunities for public participation, the findings suggest that there were no significant differences between the two options because the entry points for public participation were similar.

LIST OF ABREVIATIONS USED

CEAA	Canadian Environmental Assessement Act
DFO	Department of Fisheries and Oceans
FGS	Faculty of Graduate Studies
BC EAA	British Columbia Environmental Assessment Act
EAO	Environmental Assessment Office
EA	Environmental Assessment
EIA	Environmental Impact Assessment
CLC	Community Liason Committee
PR	Review Panels
NEPA	National Environmental Policy Act
RA	Responsible Authority
ENGOs	Environmental Non-governmental Organisations
EIS	Environmental Impact Statement
CSR	Comprehensive Study Report
HADD	Harmful Alteration, Disruption or Destruction
STPA	Sydney Tar Ponds Agency
NSEL	Nova Scotia Environment and Labour
PA	Participation Agreement
CBRM	Cape Breton Regional Municipality
CS	Comprehensive Studies
PWGSC	Public Workers and Government Services Canada

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CHAPTER I: INTRODUCTION

1.1 A Brief of Overview of Environmental Assessment

Environmental assessment is an important regulatory tool for decision making regarding proposed development projects in Canada. It is also an institutional mechanism fashioned by the federal and the provincial governments to ensure that the environment is adequately protected for the present and future generations. Environmental assessments (EAs) seek to prevent or reduce environmental impacts of proposed new activities, rather than to manage the impacts of existing activities.[1] As an environmental planning tool, the objective of EA is to address environmental and related social issues at the planning stage before irrevocable decisions are made regarding proposed activities.

The concept of EA often refers to a process for identifying and considering the impact of proposed projects, policies and programmes before any action is taken.[2] It is a tool designed to help assess the environmental impact of a proposed development, such as an infrastructure project, or a new policy or programme.[3] EA is also said to be an evaluation of effects likely to arise from a major project (or other action) significantly

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[1] Robert Gibson & Kevin Hanna, "Progress and Uncertainty: The Evolution of Federal Environmental Assessment in Canada" in Hanna, Kevin S, Environmental impact assessment: Practice and participation. (Don Mills, Ont.; New York: Oxford University Press, 2005) at 16.

[2] Kevin S. Hanna, A Brief Introduction to Environmental Impact Assessment in Hanna, Kevin S, Environmental impact assessment: Practice and participation. (Don Mills, Ont.; New York: Oxford University Press, 2005) at 1-15.

[3] Ronnie Harding, Carolyn M. Hendriks & Mehreen Faruqi, Environmental Decision-Making: Exploring Complexity and Context (Annandale, NSW: The Federation Press, 2009) at 198.

affecting the natural or human environment.[4] In the process of evaluating the effects of a project or action, decision-makers are enjoined to consider the views and perspectives of those individuals, communities and groups who are likely to be affected by the project. This is done by way of consultation and participation, a process that legitimises the decisions that are taken through the EA process.

Some scholars are of the opinion that the basic legitimacy of an EA is questionable if the process does not provide for meaningful public participation.[5] Public involvement does mean different things to different people, because of the diversity of stakeholders or interested parties involved in the process. However, the most common explanation for public involvement in EA is that it is the process by which the views of "all parties interested in an agency's decisions---interested and affected individuals, organisations, provincial, territorial and local governments, and other federal agencies—are integrated into an agency's decision making process".[6] This means that the public participation process provides a channel through which public concerns, needs, and values are identified prior to decisions, so that the public can contribute to the decision making process. Its main purpose, then, is to inform the public and to solicit responses regarding the public's needs, values, and proposed solutions or actions in regard to one specific project or activities for which their input is solicited.

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[4] Christopher Wood, Environmental Impact Assessment: A Comparative Review (Essex, England: Longman Scientific & Technical, 1995) at 1.

[5] Robert B. Gibson, "Environmental Assessment Design: Lessons from the Canadian Experience" (1993) 15 Environmental Professional 12, also see Robert R, "Public Involvement in Environmental Impact Assessment: Moving to a 'Newthink'" (1998) 4 Interact 39.

[6] Manual for Public Involvement in Environmental Assessment: Planning and Implementing Public Involvement Programs (Calgary, Alberta: Praxis, 1988) at 7.

Environmental assessment is an integral part of the policy tools used by Canada as part of environmental protection to ensure sustainable development. It is a well known fact that EA originated with the National Environmental Policy Act[7] (NEPA) passed in the United States of America in 1969. Canada followed the U.S. example when in 1970, the Federal Government of Canada set up a task force to study environmental impact policy and procedures.[8] The Federal Environmental Assessment and Review Process[9] (EARP) was then established in 1973, but was not based on an Act of Parliament. It was to be implemented according to the EARP Guidelines.[10] The determination of the need for an assessment process, coupled with the design and implementation of EA, was the sole responsibility of those vested with the authority to take those decisions. It was soon realised that the Federal EA process under the EARP Guidelines Order was inadequate, as made clear by a growing number of successful court cases involving the federal EA process and mounting criticisms.[11] In 1993, the Canadian Environmental Assessment Act (CEAA) was passed by the Parliament of Canada and promulgated in January 1995. One of the major differences between the CEAA and the EARP Guidelines is that whereas the CEAA was set out in legislation, the EARP Guidelines remained as policy. This makes the process under CEAA more robust and less vulnerable to government interference.

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[7] National Environmental Policy Act 42 USC § 4321 (1969).

[8] Supra note 11.

[9] The Federal Environmental Assessment Review Office (FEARO). Environmental Assessment Panels: Procedures and Rules for Public Meetings (Government of Canada: Ministry of Supply and Services, 1985).

[10] Supra note 1 at 317.

[11] Supra 1 at 317.

The lead taken by the Federal Government paved the way for the provincial governments to soon follow. In 1975, Ontario passed the first comprehensive piece of EA legislation, the Environmental Assessment Act.[12] Most Canadian provinces had, by the end of the 1970s,[13] an EA legislation or policy, which they followed up with increasingly effective and integrated procedures to guide the process. Altogether, EA legislation, policy and the processes are meant to achieve the goals of community participation, sustainable development and sound environmental management. They are also meant to ensure intergenerational equity, and to make the process precautionary, effective, efficient and fair by involving the public in carrying them out in regard to specific projects.

1.2 Statement of Problem and Research Objectives

A great deal has been written about public participation in EA in various respects, and in relation to specific issues. For example, some scholars have examined how to achieve meaningful public participation in the EA process.[14] Others have looked at it from First Nations consultations perspective.[15] However, there has not been any research that compares comprehensive studies and review panels provided under CEAA to understand which of the two process options results in more uptake of intervenor

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[12] Environmental Assessment Act, RSO 1990 c18.

[13] Ibid at 2.

[14] Jennifer M. P. Stewart and A. John Sinclair, "Meaningful Public Participation in Environmental Assessment: Perspectives from Canadian Participants, Proponents, and Government" (2007) 9 Journal of Environmental Assessment Policy and Management 161.

[15] Courtney Fidler and Michael Hitch, Used and Abused: Negotiated Agreements Submission to Rethinking Extractive Industry: Regulation, Dispossession and Emerging Claims Conference, York University, Toronto, March 5-7 2009.

concerns in the federal EA process in Canada. The examination of these two process options is important because comprehensive studies and panel reviews offer the greatest potential for actual involvement and require basic process steps that are not required in screening. However, they are the target for most CEAA amendments. For example, CEAA was supposed to go through some amendments in the summer of 2012, and PRs are expected to be affected in this exercise. Though this study does not necessarily examine the effects of the amendments or reforms directly, these amendments have some effect on public participation in the EA process, which is the focus of this study. For instance, post 2003 CEAA amendments created a mandatory funding program for intervenors and mandatory public participation in the four stages of comprehensive studies.

Nevertheless, concerns have arisen that the reforms are weakening the processes for undertaking EAs. The weakening is said to have been brought about by legislative provisions that narrow scope and application, resulting, effectively, in limiting public engagement in the name of streamlining initiatives in order to achieve better EA outcomes. This study, therefore, focuses on the independence of panel reviews relative to the comprehensive studies as they (comprehensive studies) were carried out after the 2003 amendments, but before the Canadian Environmental Assessment Agency took control over them around 2010.

The principal claim advanced in this study is that while comprehensive study provides some considerable amount of opportunities for public participation which results in some changes to the projects at least based on the post 2003 CEAA rules, it is not comparable to Review Panels EA process option. This is based on the institutional and

regulatory framework governing the EA process and what influence are brought to bear on the EA process by those who control the process, Panels and RAs. The imposition of regulatory conditions on proponents is necessary, but beyond the mandatory institutional and regulatory requirements, commitments outside this comfort zone (commitments outside those required by law) for proponents are a necessary condition to ensure the effectiveness of the EA process.

The purpose of this study therefore, is to determine which process option (panel review or comprehensive study), results in more meaningful consideration of the concerns and recommendations offered by public intervenors. The two process options in this study are discussed in light of who controls the process in terms of procedure, and the nature of the substantive decisions they produce. The objective of this thesis is to determine the extent to which public comments influence the outcomes of the environmental assessment processes in Canada. The specific objectives of the research are as follows:

(i) Examine the opportunity for public engagement offered by comprehensive studies and panel reviews;
(ii) Investigate how responsive RAs, proponents and panels are to intervenor concerns; and
(iii) Determine which process option incorporates deliberative principles and mutual learning

The EA processes have evolved to respond to such growing issues as the need to adequately involve the public in undertaking them, and to ensure that sustainability considerations are not discounted, and also that efficiency of the process is not compromised. The process enables decision makers to ensure an environmental assessment that secures sustainable development through public participation. Altogether,

the processes emphasise more effective public and stakeholder engagement, more comprehensive scope of issues assessed, more integrated attention to ecosystem and socio-ecological system behaviour, earlier consideration of alternatives, higher objectives of fairness and more respect for uncertainties in regard to accidents[16]. This discussion looks at changes, mitigation measures, commitments made to the projects, conditions imposed by Responsible Authorities RAs on the proponents, and panel recommendations, all because of intervenor comments in regard to comprehensive studies and joint panel reviews conducted under CEAA. The next section provides a brief overview of CEAA and the process options it provides for in Canada. Though the concept is mostly referred to as environmental impact assessment, Canada's federal process is referred to as environmental assessment. Thus, in this study, the two terms are used interchangeably.

1.3 CEAA and the process options

The Canadian Environmental Assessment Act,[17] 1992, is the main federal legal instrument regulating the EA process. While the Act provides for a range of process options such as screening, comprehensive study and review panels, there are other

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[16] Gibson, Robert B & Kevin S Hanna, "Progress and uncertainty: the evolution of federal environmental assessment in Canada," in Kevin S. Hanna, editor, Environmental Impact Assessment: Participation and Practice, second edition (Toronto: Oxford University Press, 2009) 18-36.

Doelle, Meinhard, The Federal Environmental Assessment Process: A Guide and Critique (Markham, Ont.: LexisNexis Butterworths, 2008).

Gibson, Robert B. & Kevin S. Hanna, "Progress and uncertainty: the evolution of federal environmental assessment in Canada," in Kevin S. Hanna, editor, Environmental Impact Assessment: Participation and Practice, second edition (Toronto: Oxford University Press, 2009).

Noble, Bram F., "Promise and dismay: The state of strategic environmental assessment systems and practices in Canada" (2009) 29 Environmental Impact Assessment Review 66.

[17] Canadian Environmental Assessment Act RSC 1992 c 37.

process options that fall outside the scope of CEAA. The latter include those established under a federal Cabinet Directive, those set up under other federal legislation, and ad hoc EA processes undertaken without legislative foundation.[18] This study focuses on comprehensive studies and panel review option provided under CEAA[19] which are discussed in detail in chapters 4 and 5. The fundamental purpose of CEAA is to "provide an effective means of integrating environmental factors into planning and decision-making processes in a manner that promotes sustainable development"[20]. The specific purposes of the Act, among others, are to ensure that projects are considered in a careful and precautionary manner so as to prevent significant adverse environmental effects, to promote cooperation and coordinate action with provincial governments, and to promote communication and cooperation with Aboriginal people.[21]

To date, the CEAA remains the primary legislation that governs the conduct of federal EA in Canada. With the exception of the 2003 Bill C-9 amendments, the basic structure of the Act has not changed in any significant way since 1995.[22] Generally, the Act is triggered before certain federal decisions can be made to allow a proposed project to proceed. Projects that trigger an assessment are identified through a combination of the

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[18] See The Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals, Guidelines for Implementing the Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals (Canadian Environmental Assessment Agency Ottawa, 2010) online CEA Agency< www.ceaa-acee.gc.ca> (SEA).

[19] See CEAA sections 14(b), 21, and 40(2).

[20] CEA Act Supra note 1 see the Preamble.

[21] CEA Act Supra note 1 at sections 4(1).

[22] Bill C-9, An Act to amend the Canadian Environmental Assessment Act, 2nd sess., 37th Parl., 2003.

definition of "project"[23] and regulations that refine the definition to exclude certain projects and include certain activities that are not related to physical works.[24] Federal decisions that trigger the Act fall into four categories: decisions where a federal authority is a proponent of a project; decisions to financially support a project; decisions to grant an interest in federal land to a project; and federal regulatory decisions.

Once the Act is triggered, there are a number of process options: EA can be done in the form of screening, a comprehensive study, a panel review, or mediation. As well, it can be done by some combination of these processes, depending on the nature of the project and the issues it raises and engages. Screenings and comprehensive studies are generally regarded as alternative forms of self assessment, whereas mediation and panel reviews are more independent forms of assessment.[25] This study focuses on comprehensive studies and panel reviews to determine the extent to which they incorporate intervenor concerns.

1.4 Conceptual Framework

Conceptually, this work centres on the applied application of deliberative democracy and mutual learning through public participation.[26] The basic argument for public participation in environmental assessment relative to other environmental

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[23] CEA Act, supra note 1 see section 2.

[24] Meinhard Doelle, The federal Environmental Assessment Process: A Guide and Critique. (Markham, Ont.: LexisNexis Canada, 2008) p. 83.

[25] Ibid at 1.

[26] Jenny Steel, "Participation and Deliberation in Environmental Law: Exploring a Problem Solving-Approach" (2001) 21 Oxford Journal of Legal Studies 415.

decision-making procedures is that it legitimises or validates the decisions taken.[27] It does so by allowing assertions to be checked against the views of those who have local knowledge of an area, and are interested parties to the process. Ultimately, public participation encourages social learning which leads to the internalisation of values as well as the "accretion and assimilation of knowledge".[28] The rationale in this regard is that learning takes place when individuals and organisations appreciate that their private interests are closely linked with broader social interests such as environmental protection.[29]

Chapter 2 of this thesis outlines how these ideas fit together with the public participation literature, where they are complementary, and whether and where they may conflict. The aim of EA, among others, is to impose specific obligations on decision-makers to assess the environmental effects of proposed projects and to predict their impacts on the public.[30] As such, it is important to investigate how these obligations to encourage public participation can lead to the public being able to influence decision-making in the EA process.

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[27] Jane Holder, Environmental Assessment: the Regulation of Decision- Making (Oxford: Oxford University Press, 2004) p.194.

[28] Ibid at 197.

[29] Ibid.

[30] Neil Craik, Meinhard Doelle and Fred Gale "Governing Information: A Three Dimensional Analysis of Environmental Assessment" (2012) 90 Public Administration 19.

1.5 Organization of the Thesis

In terms of structure, as shown, this chapter sets out the problem and objectives of the study. It also explores the legislative roots, and development of legal principles relating to environmental assessment in Canada.

Chapter 2 discusses the theory and key concepts in public participation practice. The discussions highlights how public participation can be enhanced through deliberative democracy and learning. This discussion in chapter two also set the criteria for analyzing the case studies in terms of whether they conform to deliberative principles in the EA public participation process. Chapter 3 presents the research approach and the limitations of the study. It also examines the methods used to gather data process and the analysis techniques.

Chapter 4 presents the results of study of Galore Creek and Mt Milligan comprehensive study projects carried out under CEAA. It explains the extent to which Responsible Authorities (RAs) and proponents responded to intervenor comments in those two cases in light of the regulatory requirements under CEAA. Chapter 5 also presents results of the Whites Point Quarry Terminal and Sydney Tar Ponds environmental assessment projects focusing on intervenor concerns and panel and proponent responses to those concerns.

In chapters 6 and 7, review panels are compared to comprehensive studies to establish which of the two process options results in more uptake of intervenor comments. The chapters also discuss the implications of the findings regarding public influence in comprehensive studies control by RAs and in review panels under the control of an independent panel. The chapter draws conclusions based strictly on the four

case studies reviewed. The conclusion suggests that RAs should go beyond their regulatory requirements where it is necessary in view of important intervenor concerns.

CHAPTER II: PUBLIC PARTICIPATION IN THE ENVIRONMENTAL ASSESSMENT PROCESS: LITERATURE REVIEW IN THEORETICAL CONTEXT

2.1 Introduction

It has been observed by several scholars that public involvement has long been recognized as the bedrock of environmental assessment (EA).[31] Public participation is so integral to the process that the European Community Environmental Impact Assessment Directive EC EIA Directive,[32] recognized individual rights to participate in the EA process. This Directive represents the European Community's main legislative initiative to improve public participation of decision making in the EA process. It is because of the importance accorded to public participation in the literature by states and international organisation that this chapter provides the context and theoretical rationale for public participation in the environmental assessment process under the Canadian Environmental Assessment Act (CEAA) 1992.[33] The first section explores some key issues that affect public participation and consultation in diverse ways. The issues examined include benefits of participation, opportunities for comment, public hearings, consultation with Aboriginal or First Nations, and participant funding under CEAA as a tool to facilitate

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[31] Petts, J Public participation in environmental impact assessment. In Handbook of Environmental Impact Assessment. Environmental Impact Assessment: Process, Methods and Potential, ed. J Petts,. (Oxford: Blackwell, 1999) at 145–177; also see Christopher Wood, Environmental Impact Assessment: A Comparative Review (Essex, England: Longman Scientific & Technical, 1995).

[32] Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment (the EIA Directive in force since 1985 amended in 2003).

[33] Canadian Environmental Assessment Act RSC 1992 c. 37.

the participation process. The aim is to highlight that these issues still remains sources of concern as regards the matter of public participation in the federal environmental assessment process.

The second part discusses the philosophical and theoretical context and justification for public involvement in the environmental assessment process. The discussion is developed around mutual learning and deliberative democratic theories to assess the extent to which the process is designed to ensure that participants are judged only on the strength of their arguments.[34] It also considers the capacity of citizens to become involved in the deliberative process, and how the process works to address potential power imbalances. The rationale is to understand the extent to which stakeholder participation in the EA process influence the final outcomes of the process. The normative objective of environmental assessment, among other things, is to ensure stakeholder involvement. This chapter explores the rationale for participation in the EA process and how it influences the decision-making process.

2.2 EA and the Participation Context

As indicated earlier, EA is a tool that helps to regulate decision-making process and procedures regarding the development of a new project, policy or program. It is contended that in the area of environmental regulatory and policy tools, EA is among the

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[34] Hans Wiklund, "In search of arenas for democratic deliberation: a Habermasian review of environmental assessment" (2005) 23 Impact Assessment and Project Appraisal 281.

most influential in North America.[35] The influence of EA in the decision-making process is greatly enhanced by EA's most important component, public participation. As indicated earlier, public participation has been variously defined. However, the most comprehensive definition in the context of EA is said to be:

> a continuous, two-way communication process which involves promoting full public understanding of the processes and mechanisms through which environmental problems and needs are investigated and solved by the responsible agency; keeping the public fully informed about the status and progress of studies and implications of project, plan, program and policy formulation and evaluation activities; and actively soliciting from all concerned citizens their opinions and perceptions of objectives and needs and their preferences regarding resource use and alternatives development or management strategies and any other information and assistance relative to the decision.[36]

This definition indicates that public participation and integration enable decision-makers to consider and incorporate community aspirations while benefiting from local knowledge that the public possesses. In order to appreciate the wide range of benefits public participation brings to the EA process, the section that follows undertakes a detail discussion of the benefits of public participation in the EA process.

2.3 Benefits of Public Involvement

The vital role of public participation has been recognised in the literature locally and in international law because of its critical contribution to sound decision-making. The public involvement helps to define the problem more effectively early in the process by

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[35] Kevin S. Hanna, A Brief Introduction to Environmental Impact Assessment in Hanna, Kevin S, Environmental impact assessment: Practice and participation. (Don Mills, Ont.; New York: Oxford University Press, 2005) at 1.

[36] Canter LW. Environmental impact assessment, Second Edition. (New York: McGraw Hill, 1996) at 587.

virtue of the information they bring. In general terms, public participation literature indicates that meaningful stakeholder involvement has a number of benefits, such as the provision of traditional knowledge from different sources. Public involvement also enhances the legitimacy of the project proposed and the identification of values relevant to site selection for minimization of conflict. It also facilitates early identification of affected interests and values which helps in identifying socially acceptable solutions.[37]

The practical benefits of public participation are many, and traverse many fields, such as law, politics, conflict resolution, planning, and decision-making.[38] It is quite clear that EA is interdisciplinary, and the literature suggests that public participation in EA has the following benefits:[39]

- Provides access to local and traditional knowledge from diverse sources;
- Enhances the legitimacy of proposed projects;
- Helps define problems and identify solutions;
- Permits a comprehensive consideration of factors upon which decisions are based;

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[37] Bram F. Noble, Introduction to Environmental Impact Assessment: A guide to Principles and practice (Don Mills, Ont, Oxford University Press, 2010) at 180.

[38] Petts, J., Public participation in environmental impact assessment. In Handbook of Environmental Impact Assessment. Environmental Impact Assessment: Process, Methods and Potential, ed. J Petts,. (Oxford: Blackwell, 1999) pp. 145–177; Peter J. Usher, "Traditional Ecological Knowledge in Environmental Assessment and Management" (2000) 53 Arctic 183, and Shepard, A., & C. Bowler, "Beyond the Requirements: Improving Public Participation" (1997) 40 Journal of Environmental Planning and Management 725.

[39] John A. Sinclair & Alan P. Diduck (2005) Public involvement in Canadian environmental assessment: enduring challenges and future directions. In: Hanna K (ed) Environmental Impact Assessment: Process and Practice (Toronto, ON, Canada Oxford University Press, 2005) at 58-79; Jane Holder, Environmental Assessment: the Regulation of Decision- making (Oxford: Oxford University Press, 2004) at 194; Manual for Public Involvement in Environmental Assessment: Planning and Implementing Public Involvement Programs (Calgary, Alberta: Praxis, 1988) at 7-8.

- Ensures that projects meet the needs of the public in terms of purpose and design;
- Brings alternative ethical perspectives into the decision-making process;
- Broadens the range of potential solutions considered;
- Furnishes access to new financial, human, and in-kind resources;
- Prevents 'capture' of EA agencies by project proponents;
- Encourages more balanced decision making;
- Increases accountability for decisions made;
- Facilitates challenges to illegal or invalid decisions before they are implemented;
- Illuminates goals and objectives, which is necessary for working through value or normative conflict;
- Furnishes venues for clarifying different understandings of a resource problem or situation, which is key to resolving cognitive conflict;
- Helps avoid costly and time-consuming litigation; and
- Reduces the level of controversy associated with a problem or issue.

It is evident from the forgoing that stakeholder engagement and consultation is essential in the EA process. Projects that are preceded by a programme of stakeholder engagement to identify and address concerns could result in few or no objections to its implementation.[40] In practical terms, public participation may also result in substantial project modifications or abandonment if no other accommodation is possible.

Recognising the importance of participation, most Canadian EA legislation makes participation an integral element of the EA process. For example, the preamble of Canadian Environmental Assessment Act 1995 CEAA states:

> The Government of Canada is committed to facilitating public participation in the environmental assessment of projects to be carried out by or

[40] Jane Holder, Ibid note 10 at 226.

with the approval or assistance of the Government of Canada and providing access to the information on which those environmental assessments are based.[41]

In this regard, almost all EA legislation in Canada, be it provincial or federal levels, incorporates, to some extent, practical measures for public participation. Consistent with this, most EA scholars consider participation as the bedrock of environmental assessment.[42] For instance, Wood contends that "EIA is not EIA without consultation and public participation."[43] In spite of the contributions public participation brings to the EA process, project proponents often raise concerns and seek to reduce or completely eliminate the public participation component in the process. In this regard, the next section explores more closely why project proponents often express disquiet about public involvement in the EA process.

2.4 Public Participation: Why proponents consider public Involvement inflammatory

Public participation is usually resented by the developer or the project proponent, and it also has the potential to upset the relationship between the public and government officials.[44] The reason for this resentment by the project proponents is the fact that it may lead to inconclusive decisions on proposed projects because of the diversity of interests involved in the process.[45] It is also difficult to filter among the different interests groups

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[41] CEAA Preamble note 1.

[42] Ibid.

[43] Christopher Wood, Environmental Impact Assessment: A Comparative Review (Essex, England: Longman Scientific & Technical, 1995) at 225.

[44] John Glasson, Riki Therivel & Andrew Chadwick, Introduction to Environmental Impact Assessment: Principles and Procedures, Process, Practice and Prospects 2nd edt (London: UCL Press, 1999).

[45] John Glasson, Riki Therivel & Andrew Chadwick, Supra note 9 at 161.

the views of the most vocal groups from those of the 'publics'[46] who are really affected by the project. This is how the developer's situation has been characterized:

> Most developers' contact with the public comes only at the stage of planning appeals and inquiries; by this time, participation has often evolved into a systematic attempt to stop their projects. Thus, many developers never see the positive side of public participation, because they do not give it a chance.[47]

The proponent's lack of trust, frustration and scepticism about public involvement in EA has some historical and contemporary validation in other jurisdictions and in Canada. For example, National Environmental Protection Act NEPA[48]-related lawsuits have stopped major proposed projects, some of which include oil and gas developments in Wyoming, a ski resort in Carlifornia, and clear-cut logging project in Alaska.[49] Similarly, in Japan in the late 1960s and 1970s, riots (said to be so violent that six people died) delayed the construction of the Narita Airport near Tokyo by five years.[50] The situation in the United Kingdom is not different—public participation turned into protest where the protesters wearing gas masks at a nuclear power station sites, threatened to lie down in front of the bulldozers working on an M3 motorway at Twyford Down. This came after they were evicted from tunnels and tree-houses on the Newbury

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[46] These are interests groups who may emerge at different times during the EA process depending on their particular interest and the issues involved.

[47] John Glasson, Riki Therivel and Andrew Chadwick Supra note 8 at p. 161.

[48] US National Environmental Protection Act 1969 42 U.S.C. 4321.

[49] Timothy O'Riordan & R Kerry Turner, An Annotated reader in environmental planning and management (eds) (New York: Pergamon Press, 1983).

[50] John Glasson, Riki Therivel and Andrew Chadwick Supra note 8 at 161.

bypass route, costing more than £6 million for policing before the construction even began.[51]

In Canada, a number of projects have been rejected by panel reviews partly because of pressure from the public, a situation that did not sit well with some of the proponents. A notable example is the Joint Review Panel decision in the Whites Point EA[52] in which the panel recommended to the provincial government to reject the proposed project. The White Point panel recommendation, which eventually led to the rejection of the project, resulted in court action. The proponent brought an action against Canada under NAFTA Chapter 11, alleging that breaches of NAFTA caused the proponent damages of $101 million dollars.[53]

Though the panel had genuine reasons largely informed by sustainability considerations for rejecting the project, both the panel and the government faced enormous pressure from the public not to proceed with the project. This is because the project poses the threat of unacceptable and significant adverse effects to existing and

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[51] John Glasson, Riki Therivel and Andrew Chadwick Supra note 8 at 162.

[52] Canada, Environmental Assessment Agency, Environmental Assessment of the White Point and Marine Terminal Project (Joint Panel Review Report, 2007) (Chair: Robert Fournier).

[53] Canada Statement of Defense of Government of Canada in Bilcon v. The Government of Canada, Department of Justice and of Foreign Affairs and International Trade (Ottawa: Ontario, 2009) at 30.

future environmental, social and cultural conditions influencing the lives of individuals and families in the adjacent communities.[54]

The most recent example is the Keystone XL oil pipeline project between the US and Canada which would transport bitumen from Alberta oil sands to the US. While the Obama administration in the US faces pressure from political interest groups, the most pressure comes from the environmental groups and other members of the public. Some of these pressure groups, who are against the project, may not necessarily be affected either directly or indirectly by the effects of the project. The challenge here for the proponent and government is how not to over represent the active public that may not necessarily be affected by the project and to ensure adequate representation of the so-called inactive public that resides in the area and would be affected by the project.[55] These and other concerns are the issues that project proponents consider as financially unrewarding to involve the public in the EA process. In addition to the above concerns, even if the proponent gets past this hurdle, the next issue is the nature and scope of the public engagement. This is discussed in the next section.

2.5 Nature and Scope of Public Involvement

Public involvement in environmental assessment takes diverse forms and covers a wide range of issues, some of which depend on legislative provisions and on the

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[54] Public Pressure came from outside the EA process, such as ENGOs, community groups and political activists.

[55] Bram F. Noble, supra note 8 at 183.

discretion of responsible authorities (RA).[56] The language used in CEAA does not necessarily explain the nature of the engagement anticipated by the Act. The legislation contains provisions for public participation such as those dealing with public notice, access to information, participant assistance, public comment, public hearings, and public display of EA documents. However, the form this participation takes is largely discretional because it is not clear in the legislation when and how the participation would be implemented.[57] This sometimes poses problems for stakeholders regarding the credibility and acceptability of the final outcomes in the EA process.

Beyond this legislative uncertainty as to the nature of public participation, the literature indicates that generally, participation often occurs in a format where expert agencies and their consultants undertake technical analyses, announce initial findings in draft documents, and either defend or modify their analysis following the submission of oral or written comments by organizations or members of the public.[58] Scholars call this

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[56] Ibid.

[57] Jennifer M. P. Stewart & A. John Sinclair "Meaningful Public Participation in Environmental Assessment: Perspectives from Canadian Participants, Proponents, and Government" (2007) 9 Journal of Environmental Assessment Policy and Management 161.

[58] J. E. Innes, "Planning through consensus building: A New View of the Comprehensive Planning Ideal" (1996) 62 Journal of the American Planning Association, 460.; also see Petts, J Public participation in environmental impact assessment. In Handbook of Environmental Impact Assessment. Environmental Impact Assessment: Process, Methods and Potential, ed. J Petts,. (Oxford: Blackwell, 1999) pp. 145–177.

method of engagement the 'decide-announce defend model', but it has long been criticized as being a poor model of engagement.[59]

As a legislative requirement, public comments are expected during the preparation of the scope of the EA. Additionally, during the preparation of the EA report, RAs are mandated to create opportunities for public comments and these comments must be taken into consideration in preparing the EA report.[60] Public participation is encouraged at the various stages of the EA process at least for most of the process options in CEAA. However, the approaches adopted to facilitate the participation process are confronted by some challenges. The next section discusses some of these approaches and the problems they pose in the assessment process.

2.6 Key Public Participation Issues in Canadian EA

2.6.1 Levels of Involvement and Opportunities for Public Comment

Public participation is strongly encouraged in the EA process at the federal and provincial levels in Canada. While this is an important component of the process, it is observed that the process rarely accounts for highly participatory approaches in which proponents are prepared to significantly alter project or implementation plans.[61] For instance, Arnstein defines different levels of public involvement as ranging from

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[59] S. R. Arnstein, "A ladder of citizen participation" (1969) 35 Journal of the American Planning Association 216.; Also see R. Duncan "Constructing barriers in the translation and deployment of science: Basslink — a case studies" (2003) 62 Australian Journal of Public Administration 80.

[60] Bram F. Noble, supra note 7 at 180.

[61] Ibid at 184.

manipulation of the public to citizen control.[62] At one end of the spectrum is what Arnstein described as non-participation. This represents the involvement of the public in a way that does not include participation. This means that, practically, public involvement in EA basically concentrates on consulting, which is not more than a way of providing information to the public, rather than participation through discussion and collective decision making.[63] Recognizing these problems and, in order to forestall it to make participation meaningful, the regulatory regime provides opportunities for the public to comment on the project as proposed, and in regards to its different stages. This takes the form of face-to-face interactions, hearings and presentations where participants ask questions bordering on the ability of the process to address environmental effects.

Public comment provisions in the CEAA apply depending on the EA and the process option it engages. Provisions for public comment for small-scale projects remain unsatisfactory in the EA process and relatively weak for screening level assessments.[64] With regard to screening, the decision on whether to permit participation is at the discretion of the responsible authority (RA), which may be the proponent, the regulator or both. It must be noted, however, that for a class screening assessment, public consultation is required, and the public must be given the opportunity to review and comment on the project before a decision is made to the class screening project. But it is contended that public engagement in the assessment of large projects is relatively well

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[62] Arnstein S., "A Ladder of Citizen Participation" (1969) 35 Journal of American Institute of Planners 216.

[63] Bram F. Noble supra note 8 at 184.

[64] Ibid.

developed.[65] This is more associated with review panels which involve large projects and thus include wider and long periods of public participation. For example, in a comprehensive study process option, public comment is mandatory according to the CEAA.[66] However, only regarding the project scope and on the final comprehensive study report and does not include the ongoing assessment or the development of the report. This remains a problem which could affect the final outcome of an EA, considering that only a handful of projects out of thousands carried out under CEAA, have gone through a panel review, and less than 5 per cent have undergone a comprehensive study.[67] Another approach used to engage the public is the public hearings through open houses or community meetings and this is discussed in the next section.

2.6.2 Public Hearing

Public hearing forms part of the legislative requirements for public participation regarding review panel assessments in CEAA. It appears that under the CEAA, public hearings are required only for panels. However, in most cases, comprehensive studies also hold public hearings. Public hearings have been seen as a more independent form of engaging participants in the EA process. This is because panels usually undertake their

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[65] Meinhard Doelle, The Federal Environmental Assessment Process: A Guide and Critique. (Markham, Ont.: LexisNexis Canada, 2008) at 32.

[66] CEAA Supra see section 21.

[67] John A. Sinclair and Alan P. Diduck (2005) Public involvement in Canadian environmental assessment: enduring challenges and future directions. In: Hanna K (ed) Environmental Impact Assessment: Process and Practice (Toronto, ON, Canada Oxford University Press, 2005) p. 58-79.

assessments at arm's length or neutral position from governments and proponents. Despite panel reviews' powers to broadly hear the public in the EA process, hearing panels do not have the ultimate decision-making authority. A Panel's role is restricted to providing recommendation and advice to government decision-makers. Nevertheless, hearing is preferred by interested parties and commentators in the EA community because it offers procedural certainty and transparency. It also acts as a neutral arbiter and ensures independence of the EA process.[68] Sinclair and Diduck think that hearings are the most favoured choice because among others, they ensure that public participants who take part in the process are granted access to large documents that are relevant to the EA process, and that they also timeously receive the formal written reasons for the ultimate decision in the project.

Contrary to the popular support for public hearings, in the federal CEAA process, very few assessments go to public hearings---in fact less than 2 per cent of all EAs nationally.[69] In addition, public hearings and panel reviews are not decision-making bodies, thus calling into question the capacity of the hearings and panel reviews to effectively influence the EA process. This is because relatively, this method of engaging the public is independent from other process options such as a comprehensive study. Indeed some scholars think that studies of some public review panels' work under CEAA

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[68] Ibid.

[69] Canadian Environmental Assessment Agency online CEA Agency< http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=39778>; Len Gertler, The Hearing Process in Environmental Impact Assessment: As Concept and as Practiced in Ontario In: In: Hanna K (ed) Environmental Impact Assessment: Process and Practice (Toronto, ON, Canada Oxford University Press, 2005) p. 83-102.

could be seen with cynicism, such as in relation to BHP diamond mine in the Northern Territories.[70] Thus, contrary to the popular appeal and support for hearing in panel reviews, this mechanism is probably less important in affecting change in the EA process than the media often portrays.[71]

However, CEAA does provide for the conduct of public hearings, especially in section 34, which requires review panels to make information available and to hold hearings in a manner that gives the public the opportunity to be involved. In section 35(5) of CEAA, hearing is often open to the public, though the Act gives the panel some room to decide how the hearing would be conducted. Thus, among others, necessitates a practical examination of panel reports and other documents for understanding the extent of opportunity for public participation and changes that occur as a result of intervenor and public involvement. Even if public comment and hearings create opportunities for greater public involvement, another challenge is satisfactorily engaging all the stakeholders in the process. One of the stakeholders in the federal EA process whose engagement raises issues has been aboriginal people. This is largely due to the dynamic and diverse nature of the aboriginal people coupled with constitutional and legislative requirements that need to be followed carefully in consulting with aboriginal peoples in the EA process.

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[70] Stephen Hazell, Canada V. The Environment Canada v. The Environment: Federal Environmental Assessment 1984-1998 (Canadian Environmental Defence Fund, 1999) p. 238, see to clarify BHP Diamond mine in Northern Territories and issues arising in the Independent Review of the BHP Diamond Mine Process, Canadian Institute of Resources Law, The University of Calgary: Published under the authority of the Minister of Indian Affairs and Northern Development, Ottawa, 1997.

[71] John A. Sinclair and Alan P. Diduck note 87.

The next section examines some of the challenges that confront aboriginal consultation and whether their involvement influences the EA process.

2.6.3 Aboriginal Participation

Aboriginal consultation in the EA process in Canada and globally is of an immense importance because of the traditional and ecological knowledge indigenous people bring to the process.[72] Apart from traditional knowledge, consultations are important for other reasons, and the term consultation could be interpreted to mean the constitutional duty to consult and accommodate aboriginal people.[73] In this context, consultation is also about recognizing aboriginal rights, asserted or proven. Traditional knowledge or indigenous knowledge (as often called in the literature), encompasses 'cumulative knowledge, practices, and beliefs evolving by adaptive process and handed down through generations by cultural transmission, about the relationships of living beings (including humans) with one another and with their environment'.[74] In this regard, it can be said that people with this knowledge belong to societies that are associated with a long history of exploiting their immediate environment for available resources. Exploiting these resources requires knowledge of management systems, values, social

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[72] Peter J. Usher "Traditional Ecological Knowledge in Environmental Assessment and Management" (2000) 53 Arctic 183.

[73] Richard F. Devlin and Ronalda Murphy Reconfiguration through Consultation? A Modest (Judicial) Proposal in Michael Murphy (eds) Canada: The State of the Federation 2003 Reconfiguring Aboriginal State Relations (Queen's University Press, 2005).

[74] Fikret Berkes, Sacred Ecology: Traditional Ecological Knowledge and Resource Management (Philadelphia: Taylor and Francis, 1999) at 8.

institutions and a world view.[75] Beyond their knowledge of ecology, aboriginal people have special interest in the environment---they historically depend on the environment for their livelihood. This presupposes that their relationship with the environment creates certain rights, either inherent because of their pre-contact practices, customs and traditions, or as created by law.[76] It is, therefore, necessary to consult with these groups if the environment is to be altered for any reason.

In Canada, aboriginal consultation is a legislative and constitutional requirement making their participation and consultation mandatory. The provision central to understanding the rights of aboriginal people in the federal EA process is section 35 of the Constitution of Canada together with CEAA.[77] The CEAA has a number of provisions to ensure that not only aboriginal people are consulted or participate through the EA process, but that their role in general is tapped to help the process. The starting point in the CEAA is the purpose section that specifically indicates the promotion of "communication and cooperation between responsible authorities and Aboriginal peoples with respect to environmental assessment".[78] Other sections that touch on aboriginal involvement are the definition sections. For example, the definition of environmental effect includes the effects of biophysical changes on "physical and cultural heritage", on "the current use of lands and resources for traditional purposes by aboriginal persons",

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[75] Bram F. Noble, supra note 8 at 188.

[76] Annie L. Booth and Norm W. Skelton "Industry and government perspectives on First Nations' participation in the British Columbia environmental assessment process" (2011) 31 Environ Impact Assess Rev 216.

[77] Constitution Act, 1982, being Schedule B to the Canada Act 1982 (UK), 1982, c 11.

[78] CEAA, supra See section 4.

and "any structure, site or thing that is of historical, archaeological, paleontological or architectural significance". Section 16.1 also enjoins proponents to consider aboriginal traditional knowledge in conducting an environmental assessment. These clearly convey the essential recognition of the role of aboriginal people in the main legislation (such as the CEAA), that governs the conduct of EA at the federal level.

The case law in Canada is replete with issues concerning the duty to consult with aboriginal people in the EA process. In 2004, the Supreme Court of Canada made important and relevant decisions, the Taku River Tlingit First Nations v. British Columbia and Haida Nation v. British Columbia.[79] In these two cases, the Court was emphatic that the federal Crown has a duty to consult Aboriginal peoples before making decisions that have the potential to interfere with Aboriginal rights or title, whether fully recognised or not. Significantly, in Taku River Tlingit First Nation (TRTFN) v. British Columbia, the court per McLachlin C.J., unanimously decided that environmental assessment process is enough to fulfil the duty of the Crown to consult. While the court decided that the EA process had been sufficient in that particular case, it cautions that whether or not the EA satisfies the duty to consult should be taken on a case by case basis. The court stated that the "process engaged in by the province under the Environmental Assessment Act fulfilled the requirements of its duty to consult."[80] These decisions has led to various suggestions: there are those who advocate for the consultation process to be integrated

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[79] Taku River Tlingit First Nation v. British Columbia (Project Assessment Director) [2004] 3 SCR 550 at paragraph 22 see also Haida Nation v. British Columbia (Minister of Forests), 2004 3 SCR 550.

[80] Taku River Tlingit First Nation v. British Columbia (Project Assessment Director) [2004] 3 SCR 550 at paragraph 22.

into the EA process, while others call for consultation to be independent of the EA process.[81]

In addition to the uncertainty as to how the consultation should be done, is the even more important issue of whether in some cases, they are even consulted, and even if they are, whether their views often influence the final outcome of the EA process. Of course, in Haida, the Supreme Court added that to be legally sufficient, the consultation process did not require that the concerns of the Taku Tlinglit be addressed to their satisfaction. This creates loopholes for those who choose to use the EA process to consult to justify whatever decisions emerge even if they are not agreed upon by aboriginal people. Of significance in this is that though the CEAA is emphatic on consulting them, there are only interim guidelines on doing this, they have no binding effects.[82] It is, therefore, always left to the courts to determine if the required consultation is meaningful, adequate and fair to all interested parties.[83] The deficiencies in aboriginal engagement in the EA process came to light when the Canadian Arctic Resources Committee criticised the EA for a diamond mine in the Northwest Territories. It said the process was

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[81] Annie L. Booth and Norman W. Skelton "Improving First Nations' participation in environmental assessment processes: recommendations from the field" (2011) 29 Impact Assessment and Project Appraisal 49.

[82] Annie L. Booth and Norman W. Skelton "Improving First Nations' participation in environmental assessment processes: recommendations from the field" (2011) 29 Impact Assessment and Project Appraisal 49 at 218.

[83] Ibid at 219 and also Haida Nation v. British Columbia Supra note 48.

fundamentally flawed because the assessment failed to live up to the three principles of all environmental assessments: comprehensiveness, fairness and rigour.[84]

The failure in aboriginal consultation in the EA process is so serious that a 1999 statement by the Confederacy of Nations to CEAA stated that the Canadian Environmental Assessment Act's required five year Ministerial review should include:

> "A recognition of First Nations' jurisdiction to conduct their own environmental assessments, and resolutions mechanisms to address the concerns of First Nations people and to ensure meaningful participation that incorporated traditional knowledge of the environment into the assessment process".[85]

While the role of aboriginal people in the federal EA process in Canada has evolved in a significant way with several years of practice, and is still evolving, the challenges outlined above indicate that there is much work to be done. For example, the unanswered question is whether, or to what extent the EA process can, and should serve to fulfil the duty of the Crown to consult. Furthermore, how effective is the consultation process, and how does the consultation affect the final outcome of the EA process?

2.6.4 Intervenors Funding

The need for financial assistance for public participation in regulatory proceedings such as the EA process in the CEAA has long made clear.[86] Participant

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[84] CARC, Canadian Arctic Resources Committee 1996. "Critique of the BHP Environmental Assessment: purpose, structure, and process" (1996) 24 Northern Perspectives 1 at 7.

[85] Annie L. Booth and Norman W. Skelton, supra note 50 at 52.

[86] Raj, Anand & Ian. G Scott "Financing Public Participation" (1982) 66 Canadian Bar Review 81; see also Joan B. Aron "Citizen Participation at Government

funding, as advocated by many an EA scholar, is premised on the principle that group intervention in the regulatory process and before regulatory agencies is a public good.[87] As strongly argued by Englehart and Trebilcock, without intervenor funding, the cost associated with public participation would prohibit many potential publics from getting involved in the process. In their opinion, "…. It would probably not be worth it for the individual to intervene at their own expense in the long run, if they must hire lawyers and experts…. but it is worthwhile to firms affected by the regulations."[88] This view has been echoed by other scholars who contend that intervenor funding provides support to large diffused groups and minority groups whose voices are not effectively heard in a representative system based on political and economic rather than environmental constituencies.[89]

While EA scholars advocate for funding to be provided for participants, the beneficiaries, led by Environmental Non-governmental organisation or environmental

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Expense" (1979) 39 Public Administration Review 477; Kenneth G. Englehart and M.J. Trebilcock, Public Participation in the Regulatory Process: The Issue of Funding (Working Paper No. 17, Economic Council of Canada, 1981); Gilmour, J.C 1983 Intervenor Costs before Public Utility Tribunals, (St John's Newfoundland: Camput Annual, 1983) Meeting September 6-9; Robert B. Gibson Environmental Assessment Design: Lessons from the Canadian Experience (1993) 15 Environmental Professional 12 and Christopher W. Wood Environmental Impact Assessment: A Comparative Review. 2nd ed (London: Prentice Hall, 2003).

[87] Englehart and M.J. Trebilcock, supra note 30.

[88] Englehart and M.J. Trebilcock supra note 30 at 18 as cited in Beaufort Sea Environmental Assessment and Review Process: Intervenor Funding Comparative Study Final Report Background Paper, Evaluation Branch, Department of Indian Affairs and Northern Development (Ottawa, Ontario, 1985) at12.

[89] Judith P Cooper Public Participation in the Environmental Assessment and Review Process: The Role of Intervenors Funding (MSC, University of British Colombia, 1988) unpublished at 24.

ENGO have long championed this cause. It was argued by the Canadian Environmental Network that for participation to be effective there is the need for funding to be provided to the public.[90] This is particularly important because of the disparity in resource levels between proponents and the public. This resource imbalance affects the quality of dialogue and deliberation in the assessment process. Thus, financial assistance, if adequately and timely provided, could embolden participants to prepare and participate in scoping meetings, review draft assessment guidelines, challenge the proponent EIS, and prepare and participate in public hearings.[91]

Despite the obvious benefits of financial assistance to participants in the EA process, there are inadequate mechanisms to support participants in the process in Canada.[92] According to Sinclair and Diduck, the province of Ontario, which was a leader in the area of participant assistance, lost it when the legislation providing for it lapsed in 1996. As it stands now, it is Canada and Manitoba that provide assistance. Under the CEAA, assistance is made available for both public hearing and comprehensive studies. Nonetheless, there has also been a concern as to the adequacy of funds provided and the mode of allocation. In addition to these problems, the major critique against funding for

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[90] Canadian environmental network, environmental planning and assessment caucus: A Federal Environmental Assessment Process, The Core Elements (Ottawa: Canadian environmental network, environmental planning and assessment caucus, 1988).

[91] John A. Sinclair and Alan P. Diduck (2005) Public involvement in Canadian environmental assessment: enduring challenges and future directions. In: Hanna K (ed) Environmental Impact Assessment: Process and Practice (Toronto, ON, Canada Oxford University Press, 2005) p. 58-79.

[92] Ibid at 63.

participants is that it has the tendency to exacerbate social conflict by providing a battle ground for competing interests groups to promote their respective agendas.

But the counter argument is that funding does not necessarily create conflict where none exists and that conflict itself can be a social learning and consciousness raising experience.[93] When funding is provided for participants, it paves the way for them to get involved in deliberations and this has the potential to make their participation meaningful. It is quite clear that the issues discussed above still remain grey areas as far as the EA process is concerned. It therefore means that public participation still needs to develop mechanisms to overcome these challenges. While the challenges subsist, the CEAA as it is currently formulated provides for discretion for responsible authorities as to how to conduct public participation. While some amount of discretion may be necessary, the question relates to the amount of discretion necessary for public participation in the EA process. The next section discusses the issue of discretion and how that might affect the independence of the process.

2.6.5 Discretion and Independence of the EA Process

There is consensus in the literature that public participation is an important component of the EA process. However, what is not clear so far is a good understanding of what role the public should play and when and how they should be engaged in the process. The uncertainty regarding the method of engaging stakeholders in the EA

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[93] Morton Deutsch and Peter T Coleman, The Handbook of Conflict Resolution: Theory and Practice (San Francisco: Jossey-Bass, 2000).

process is partly a result of lack of clarity in the CEAA as to how the engagement should be carried out. This uncertainty creates room for some considerable level of discretion in the EA process.[94] It is understandable that the federal EA process in Canada evolved from a completely discretionary process to the hybrid process that it is today, which combines legal obligations and discretion.[95] The overarching question with regard to public engagement is how to ensure independence of the EA process regarding the fact that responsible authorities have discretion in some aspects of the EA process. In addition to this, even if the public is given the opportunity to participate in the process, it is not clear how much influence they have on the final outcome of an EA irrespective of the process option used.

As demonstrated in a number of cases, the underlying issue has been the exercise of discretion by responsible authorities and the Minister of the Environment in determining the scope of a project in s.15,[96] and scope of assessment in s.16.[97] This largely has been blamed on a perceived power imbalance, where the responsible authority is perceived to shield projects from meaningful public review.[98] In the Alberta Wilderness Assn. v. Cardinal River Coals Ltd.,[99] the plaintiffs challenged the adequacy of an environmental assessment carried out by a review panel in the Cardinal River Ltd

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[94] Meinhard Doelle, The federal Environmental Assessment Process: A Guide and Critique. (Markham, Ont.: LexisNexis Canada, 2008).

[95] Ibid p 34.

[96] CEAA, supra at section 15.

[97] CEAA, supra at section 16.

[98] Meinhard & Chris, supra note 1.

[99] Alberta Wilderness Assn. v. Cardinal River Coals Ltd [1999] CarswellNast 511 (FCD).

Coals project. Similarly, in the Red Chris[100] case before the Federal Court of Appeal, Justice Martineau quashed the screening decision and prohibited the RA and the Governor in Council from issuing approvals in relation to the Red Chris mine project until the public had been consulted on the scope of the project and a comprehensive study was carried out in accordance with section 21.[101]

It must be noted that the level of discretion at the disposal of the responsible authority has changed overtime as jurisdictions in Canada have become more experienced in the EA process. This means that matters that were initially carried out at the discretion of government officials are now being handled under legally binding requirements in the CEAA. For instance, under the Environmental Assessment Review Process (EARP),[102] certain factors which were discretional have now been included in the CEAA which are legally binding. Under section 16 of CEAA, the RA is mandated to consider comments from the public, cumulative environmental effects, mitigation measures and many others.

Despite these mandatory provisions in the CEAA, the EA process is still characterised by discretion in four main areas: the trigger or application of the EA process, choice among process options (screening, comprehensive study, panel review

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[100] Mining Watch Canada v. Minister of Fisheries and Oceans, [2008] 3 FCR 84 (TD.).

[101] Mining Watch Canada v. Canada (Minister of Fisheries and Oceans), 2008 FCA 209, [2009] 2 FCR 21; Section 21 in the CEAA mandates the responsible authority to give notice in any manner that it considers appropriate, providing the public with an opportunity to comment on the project and the conduct of the comprehensive study.

[102] Environmental Assessment Review Process, supra note 9.

and mediation), substantive scope of the assessment, and the discretion that flows from the findings of the EA process.[103] Also, the fact that the RA has the discretion to determine which other projects and environmental effects to take into account in a given environmental assessment is central to the ability of the federal government to influence the planning of projects and to limit their potential harmful impacts.[104] The concern discretion poses is the fact that it fits into the issue of self-assessment[105] where the major decisions are taken by government officials. The concerns are raised in the exercise of discretion because it is said to favour certain interests over others and this is also likely to hamper participatory democracy.[106] The judiciary, to some extent, has not taken a firm decision on the discretionary powers of the RA, and has, in most cases, deferred the decision of the RA as long as the RA follows the statutory provisions of the CEAA.[107]

Another area in the EA process mostly subjected to discretion is project needs, purpose and alternative means which are discussed next.

2.6.6 Project Needs, Purpose[108] and Alternatives Means[109]

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[103] Andrew Green "Discretion, judicial review, and the Canadian Environmental Assessment Act" (2002) 27 Queens L.J 785.

[104] Ibid at p. 787.

[105] self-assessment is here concerns the fact that the control of the EA process is entirely in the hands of the RAs and proponents as well as the CEA Agency and the Minister of the Environment.

[106] Meinhard Doelle, The federal Environmental Assessment Process: A Guide and Critique. (Markham, Ont.: LexisNexis Canada, 2008).

[107] Andrew Green "Discretion, judicial review, and the Canadian Environmental Assessment Act" (2002) 27 Queens L.J 785.

[108] The "need for" the project is defined as the problem or opportunity that the proposed project is intending to solve or satisfy. That is, "need for" establishes the

The CEAA mandates proponents to consider "alternative means of carrying out the project that are technically and economically feasible and the environmental effects of any such alternative means."[110] The Act also provides for not only alternative means of carrying out the project, but alternatives to the project proposed which is based on the discretion of the RA.[111] This provision is important because it enables decision-makers to consider alternatives in early stages of planning before irrevocable decisions are made. The basic concept behind EAs, among others, is early identification and evaluation of all potential environmental consequences of a proposed project before they are undertaken.[112] Therefore, the RA and/ or proponent will be in a position to define potential solutions to problems, and to establish the viability of alternatives.[113] The consideration will also help to establish the conditions under which significant adverse environmental effects may or may not be justified in the circumstances, should such a determination subsequently be required.

Responsible authorities should still have the discretion to determine alternatives to projects because of economic, technical and scientific considerations. However, it is submitted that since the decisions under CEAA basically involve determining and

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fundamental justification or rationale for the project. The "purpose of" the project is defined as what is to be achieved by carrying out the project.

[109] "Alternative means" are the various technically and economically feasible ways the project can be implemented or carried out. This could include, alternative locations, routes and methods of development, implementation and mitigation.

[110] CEAA Supra at s.16 2(b).

[111] CEAA Supra section 16 (1)(a).

[112] R. Cotton and D.P. Edmond in "Environmental Assessment" in J. Swaigen, ed., Environmental Rights in Canada (1981), 247 in Meinhard and Chris supra.

[113] Addressing Need for, Purpose of, Alternatives to and Alternative Means under the Canadian Environmental Assessment Act (Operational Policy Statement Original: October 1998 Update: November 2007).

considering the public interest in environmental protection and economic growth, consulting the public would help provide alternative views to enhance the process.[114] This would also prevent leaving important issues relating to the environment in the hands of "decision-makers without an understanding of the issues or agendas potentially adverse to the public interest".[115]

Regardless of the legislative challenges confronting the implementation of public participation provisions, the benefits of public participation in EA have been clearly described in both theoretical and practical terms. A key theoretical argument is that participation actualizes fundamental principles of democracy, and strengthens the democratic fabric of society.[116] In this regard, the next section discusses the theoretical foundation and the rationale for public participation in the EA process. In this section, as indicated earlier, the theoretical framework is developed around mutual learning and deliberative democracy. Thus, the case studies reviewed in chapters 3 and 4 are discussed and evaluated in chapter 5 based on these theories. This section also examines the potential of citizens to become involved in the deliberative process, and how the process works to address potential power imbalances. The rationale is to understand the extent to

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[114] Andrew Green "Discretion, judicial review, and the Canadian Environmental Assessment Act. Supra note 58.

[115] Ibid.

[116] Sinclair, AJ and AP Diduck, "Public education: An undervalued component of the Environmental assessment public involvement process" (1995) 15 Environmental Impact Assessment Review, 219–240; Petts, J. "Barriers to deliberative participation in EIA: Learning form waste policies, plans and projects" (2003) 5 Journal of Environmental Assessment Policy and Management, 269–293; Parenteau, R, Public Participation in Environmental Decision-Making (Ottawa: Minister of Supply and Services, 1988).

which stakeholder participation in the EA process influences the final outcomes of the process.

2.7 Public Participation in the EA Process: Theoretical Foundation

Making sound decisions about development planning and resources management demands quality information. This information must not only be technically accurate; it must ensure that those affected by environmental decisions have the opportunity to contribute and ideally, influence the decision-making process. This forms the foundational basis for stakeholder involvement in the decision-making process in environmental assessment. Analysis of environmental decision-making is done, inter alia via various concepts and perspectives, such as the structure of democratic decision-making, the social and cultural ramifications that relate to resource management and the economic dimension of the decisions.

Decision-making can sometimes be constrained by scientific technicalities and environmental prediction. Nevertheless, participation of affected and interested parties in the process is vital for decision to reflect a balanced and fair representation of concerns which also legitimises the process. Because participation informs decision-making process, various theories have been developed to explain the need to involve stakeholders in decision-making regarding the environment. Subsequently, sub-sections explore some of the theories that justify public participation in the decision-making process. It is contended that while some of the theories offer good reasons for public participation, they do not go far enough to justify a substantive need for participation. In this regard, the

theory preferred in recent EA processes and in the literature is the deliberative democratic governance approach. This theory forms the basis for analysing the case studies discussed in chapters three and four.

2.8 Informing Decision Making

The basic argument for public participation in environmental assessment relative to other environmental decision-making procedures is that it legitimises or validates the decisions taken.[117] Beyond that, greater public participation in decision making is occasioned and seems to be justified by criticisms of modern social organisation.[118]

> The contention is that because of the increasing complexities involved in pluralistic, contemporary social organisation, public representatives do not properly represent all stakeholders decision-making, especially as it relates to the environment.[119]

In an increasingly complex and diverse society, citizens are not just calling for opportunity to be represented and given access to information, but they seek an avenue to express their knowledge and preferences.[120]However representative democratic models are still deficient in ensuring adequate deliberation in decision making process. This

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[117] Jane Holder, Environmental Assessment: the Regulation of Decision- making (Oxford: Oxford University Press, 2004) p.194.

[118] Judith P Cooper Public Participation in the Environmental Assessment and Review Process: The Role of Intervenors Funding (MSC, University of British Colombia, 1988) unpublished at 15.

[119] Ibid at 16.

[120] Ibid at 16; Burton L. Thomas, "A Review and Analysis of Canadian Case Studies in Public Participation" (1979) 19 Plan Canada 13.

creates dissatisfaction among participants involved in the environmental assessment process.[121]

The second critical theoretical assumption of participation that informs decision making is the ends-means rationality in technocratic administration and neoclassical economic analyses.[122] The liberal political tradition has it that political actors presumed to enter the political field with their personal agenda. To this end, the political decision making process is not neutral but value laden.[123] This presupposes that the decision researched, formulated, determined and implemented by decision makers without effective deliberation through participation is equally non-neutral.[124] It is therefore justifiable that stakeholders are given access to these non-neutral and value laden decisions to ensure accountability and transparency. Such decisions usually occur at the scoping and screening stages within the federal environmental assessment process under the CEAA.

The third reason for stakeholder involvement in the EA process evolved from the scientific and technical information used in the process.[125] Predicting the impact that proposed projects would have on the environment and its effect on people poses a great

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[121] Jane Holder, Environmental Assessment: the Regulation of Decision- making (Oxford: Oxford University Press, 2004) at.186.

[122] Michael R. M'Gonigle, "The Tribune and the Tribe: Toward a Natural Law of the Market/Legal State" (1986) 13 Ecology Law Quarterly 233.

[123] Hans Wiklund, "Democratic Deliberation In Search of Arenas for Democratic Deliberation: A Habermasian Review of Environmental Assessment" (2005) 23 Impact Assessment and Project Appraisal 281.

[124] Judith P Cooper Note 16 at p. 16.

[125] Ibid.

challenge. Therefore, to come out with decisions that would be acceptable to all stakeholders in the face of this scientific uncertainty demands that, the process be characterised by openness in the planning stages. The argument is that participation in a deliberative atmosphere can help the public and decision-makers to reach informed collective choices in the face of these uncertainties and contested knowledge.[126]

Building on the characteristics of contemporary society discussed above, as it relates to environmental decision-making and resources management, the next three sections discuss theoretical assumptions based on participation, in light of the elite domination of the process, the potential for participation, and the liberal-democratic perspective on participation.

2.9 Power imbalance resulting from elite domination

Some sociological scholars note that neither the life of an individual nor the history of a society can be understood without understanding both.[127] The argument here is that there is a connection between the patterns of human life and the institutions in which they are actors. Similarly, theories of participatory democracy cannot be considered in isolation because of the idea that individuals and institutions are intricately

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[126] Ronnie Harding, Carolyn M Hendriks & Mehreen Faruqi, Environmental Decision-making: Exploring Complexity and Context (Sydney, Australia: Federation Press, 2009).

[127] C. Wright Mills, "the Sociological Imagination" in Michael Carroll & Jerry P. White eds Images of Society: Reading that Inspires and Inform Sociology (Toronto: Nelson Education, 2010) at 8.

interwoven.[128] Therefore, to be truly democratic, maximum participation in society must revolve around all spheres of life, such as the economic, political, social and cultural—in order to instill in individuals the essential attitudes of participation. Where a decision-maker creates conducive atmosphere for citizens and other important stakeholders to be represented and to have their perspectives considered, legitimate decisions will emerge even if not on basis of consensus.[129] This cannot happen in a society where there is elite domination that makes it difficult for ordinary individuals to participate in decisions that affect their lives.[130]

Some scholars argue that even in pluralistic representational frameworks, it is still the elites who rule.[131] Therefore, democracy is not necessarily compatible with democratic institutions dominated by elites. Contrary to the assertion that in a pluralistic democratic institutional framework there is consensus, the state is actually an instrument of class rule because of unequal allocation of power and resources, making it impossible for certain groups to mobilize and take part in the decision-making process.[132] The undemocratic nature of modern organisations necessitates the call for spaces to be created to promote public causes and to foster debate on issues important to the environment and

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[128] Peter Bachrach & Aryeh Botwinick, Power and Empowerment: a Radical Theory of Participatory Democracy (Philadelphia: Temple University Press, 1992).

[129] Lyn Carson "Creating Democratic Surplus through Citizens' Assemblies" (2008) 4 Journal of Public Deliberation 1-12 article 5.

[130] Judith P Cooper Supra Note 16 at p. 17.

[131] Gaetano Mosca, The Ruling Class (Elementi di Scienza Politica) Review by: Francis G. Wilson The (1939) 33 American Political Science Review 521.

[132] Judith P Cooper supra Note 16.

other sectors of society.[133] While power imbalance and elite domination could be a setback in the public participation, the potential of participation rekindle the need to effectively involve the public could reduce elite domination in the EA process. In this regard, the next section examines the potential for participation in the EA process.

2.10 The potential of participation

It is argued that managing natural resources lies at the heart of human-environment interactions.[134] Therefore, the major potential function of participation is to educate the public on human environment relations in order to reduce conflicts resulting from sustainable resources management.[135] Public involvement has the potential to combat elitist abuse of power in the EA process, in view of the divergent influences of the process. Stakeholder involvement has the potential to displace the institutional top down decision-making culture, therefore, ensures equal participation in decision-making process and also the power to determine the outcomes of decisions.[136]

There is always likely to be an antagonistic relationship between the proponent and the public because of the view that participation carries the risk of giving the project

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[133] Lyn Carson "Creating Democratic Surplus through Citizens' Assemblies" (2008) 4 Journal of Public Deliberation 1-12 article 5.

[134] Patricia Fitzpatrick, A. John Sinclair and Bruce Mitchell "Environmental Impact Assessment under the Mackenzie Valley Resource Management Act: Deliberative Democracy in Canada's North? (2008) 42 Environmental Management 1.

[135] Ibid.

[136] Judith P Cooper supra Note 16.

a high profile, with its attendant costs in time and money.[137] It is contended that participation can be used:

> Positively to convey information about development, clear up misunderstanding, allow a better understanding of issues and how they will be dealt with, and identify and deal with areas of controversy while a project is still in its early planning phases.[138]

This has the potential to avoid the personal bias that the so-called non-neutral institutional bureaucratic institutions bring to the decision-making process.

Another area that has the potential to improve the participation process is how the recruitment of participants is done. While the background of participants may not necessarily be too much of a problem, it is argued that it is important that the recruitment process is done in such a way that those with similar training, education, connections and social position are favoured to participate since all these factors shape an individual's approach to problem solving and decision making.[139] However, this approach is potentially discriminatory to participants who do not fall into this category, but whose input in the assessment process is important. Furthermore, stakeholder support or opposition can be an important factor in determining the success or failure of a project or policy.[140] It is therefore important to engage as many audiences in the community where

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[137] John Glasson, Riki Therivel and Andrew Chadwick, Introduction to Environmental Impact Assessment: Principles and Procedures, Process, Practice and Prospects 2nd edt (London: UCL Press, 1999).

[138] Ibid at 162.

[139] Judith P Cooper, supra Note 16.

[140] Ame-Lia Tamburrini, Kim Gilhuly and Ben Harris-Roxas "Enhancing benefits in health impact assessment through stakeholder consultation" (2011) 29 Impact Assessment and Project Appraisal 195–204.

the EA is likely to affect, as possible, so that the end results would be acceptable to a majority of the stakeholders.[141]

2.11 Liberal Democratic Concept of Participation

Another perspective which justifies participation is the 'liberal-democratic' concept. This emphasis the procedural rights of individuals and NGOs to be consulted and heard in decision-making.[142] When electoral legitimacy is weak, procedural legitimacy assumes greater salience.[143] To Richardson, the traditional polyarchal mechanisms (eg. elections and political parties) of liberal-democratic systems are unable to manage the demands of competing interest groups in modern societies. Additionally, the conflict generated by the democratic institutional apparatus far outstrips its ability to resolve conflicts.[144] As a result of this, increasing lack of trust in democratic liberal states, public participation has been used to legitimise the decision-making process.[145] In this milieu, environmental legislation in modern society incorporates factors pertinent to decision-making by way of early contact with the public. Consequently, through procedural reforms, concerned persons have rights of access to relevant information, to

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[141] Jennifer M. P. Stewart and A. John Sinclair "Meaningful Public Participation in Environmental Assessment: Perspectives from Canadian Participants, Proponents, and Government" (2007) 9 Journal of Environmental Assessment Policy and Management 161–183.

[142] Benjamin J. Richardson and Jona Razzaque "Public Participation in Environmental Decision-making" in Benjamin J. Richardson & Stepan Wood eds., Environmental Law for Sustainability (Oxford: Hart Publishing, 2006) P. 165-194.

[143] Ibid also see page 171.

[144] Claus Offe, Contradictions of the Welfare State (MIT Press, 1987) 167.

[145] Brent K. Marshall Warren S. Goldstein "managing The Environmental Legitimation Crisis" (2006) 19 Organization & Environment 214.

make submissions on environmental decisions, and to use courts to enforce environmental laws.[146]

In addition to the fact that participation in its diverse forms legitimizes decision-making through procedural representation, the concept has the tendency to influence policy formulation substantively. For instance, it is argued that simple obligations of openness could illuminate the uncertainties and value judgements inherent in experts' advice, allowing political decision-makers to reach conclusions on the basis of a wider array of evidence.[147] Participation also has the potential to promote co-operation and to reduce conflicts in resource-rich communities, and this can lead to better behavioural change and sound resources management.

However, not all scholars share such a real world view of participatory proceduralism. This is because liberal-democratic procedural reforms may hardly challenge the power structure of governing elites. Citizens may be heard, but their views are given weight in discretionary decision-making only insofar as they are seen as consistent with the 'seamless web of bureaucratic control and coordination'.[148] To this end, an important theoretical concept at the heart of EAs concerns citizen deliberation, and the learning implications of participatory resource and environmental governance.[149]

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[146] Benjamin J. Richardson and Jona Razzaque, supra note 76.

[147] Ibid 170-173.

[148] A Fraser, 'Legal Theory and Legal Practice' (1976) 44–45 Arena at p. 123-147 as cited in Richardson supra note 76.

[149] John Sinclair, Alan Diduck and Patricia Fitzpatrick "Conceptualizing learning for sustainability through environmental assessment: critical reflections on 15 years of research" (2008) 28 Environmental Impact Assessment Review 415.

It is argued by some that public participation in environmental assessment provides a fertile ground for considering the intricacies of governance as they relate to participation, and for examining the education and learning implications of participation. Since EA law requires, in many cases, that public voices be part of the decision process, it has resulted in the creation of state-sanctioned, deliberative spaces for civic interactions.[150] In this regard, the next sections explore the literature to understand how EA promotes deliberative democracy and learning. It focuses on the deliberative potential of environmental assessment, as a preferred theoretical option to those discussed in the previous sections.

2.12 Deliberative democracy and learning theory

The fundamental assumption for greater participation in environmental assessment, as compared to other environmental decision-making mechanisms, is that it serves as a benchmark for validating the correctness of decisions. This is achieved by allowing certain claims to be verified against the views of those who have traditional knowledge of an area, the interested parties.[151] A more deliberative approach to decision-making has been suggested as a way to revitalise democracy at a time when citizens' are disillusioned. Their trust in established political institutions is dwindling.[152] Some scholars conceive deliberative democracy as a dialogue that induces reflection upon

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[150] Ibid.
[151] Jane Holder, supra note 50.
[152] Hans Wiklund "Democratic Deliberation in Search of arenas for Democratic Deliberation: a Habermasian Review of Environmental Assessment" (2005) 23 Impact Assessment and Project Appraisal 281–292.

preferences in a non-coercive fashion[153] which is assumed to bring about better decisions. Furthermore:

> "deliberative democracy provides one lens through which to examine the characteristics of the civil space created to encourage participation, the decisions reached through participatory processes, and the learning outcomes associated with the participation."[154]

2.13 The Deliberative Ideal

It is a general consensus among deliberative theorists that the concept engenders accountability, legitimacy and responsiveness. This is because it gives people a fair opportunity to have their views heard and their perspectives considered.[155] As well, that deliberation enhances the rationality of decisions by integrating the local and situated knowledge of ordinary citizens. It is also argued that deliberative participation enables the citizen to be part of the actual decision-making and, thus, reorient decision processes to fundamental and ethical social values.[156] However, a key challenge to implementation of the deliberative democratic theory is how to bridge the gap between theory and

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[153] John Dryzek, Deliberative Democracy and Beyond: Liberals, Critics, Contestations (Oxford: Oxford University Press, 2000) p. 2.

[154] Patricia Fitzpatrick, A. John Sinclair and Bruce Mitchell "Environmental Impact Assessment under the Mackenzie Valley Resource Management Act: Deliberative Democracy in Canada's North"? (2008) 42 Environmental Management 1–18 at 2.

[155] Julia Abelson et al. "Deliberations about deliberative methods: issues in the design and evaluation of public participation processes" (2003) 57 Social Science & Medicine 239–251 see also Hans Wiklund Supra note 84.

[156] James Bohman and Williams Rehg Deliberative Democracy: Essays on Reason and Politics (eds), (MIT Press,
1997).

practice.[157] The questions that need urgent answers in this direction include at what levels should opportunities for deliberation exist — local, national or international? How should these opportunities be integrated into the public policy-making process? Is the goal to make established democratic mechanisms more deliberative or should novel opportunities for deliberation be created?

To answer these questions, the literature provides a number of tools in regard to the implementation of deliberative democracy. These mechanisms include citizen juries, planning cells, deliberative polling, consensus conferences, citizen panels, authentic dialogue and deliberative mapping.[158] Citizen juries, panels and consensus conferences are routinely used to integrate technical information and values into planning and resource allocation decisions in the environmental, energy, education and local government fields.

Citizen juries and planning cells have been run in the US and Germany respectively since the 1970s. The jury method was developed by Ned Crosby, and

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[157] John Uhr, Deliberative Democracy in Australia (Cambridge: Cambridge University Press, 1996) also see Will Kymlicka, Contemporary Political Philosophy: An Introduction (Oxford: Oxford University Press, 2002).

[158] Julia Abelson et al Supra note 87 at 242 also see, Fishkin, J S, R C Luskin and R Jowell "Deliberative polling and public consultation" (2000) 53 Parliamentary Affairs 657–666, Eames et al (2004), Deliberative Mapping: Integrating Citizens and Specialists Appraisals in a Transparent and

Inclusive Participatory Process (London: Policy Studies Institute, 2004) and Innes, J E, and D E Booher, "Collaborative policymaking: governance through dialogue", in M A Hajer and H Wagenaar (editors), Deliberative Policy Analysis. Understanding Governance in the Network Society (, Cambridge: Cambridge University Press, 2003) p. 33–59.

promoted at the state government level in agriculture, water and welfare policy; and at the national level for US health care reform, the federal budget and candidate ratings.[159]

> Citizen panels are similar to juries in their composition and task but can have more permanency with the same, or a partially replaced group, meeting routinely to consider and make recommendations or decisions about different issues or on different aspects of a single decision-making process.[160]

Consensus conferences, developed in Denmark, are used in a variety of settings. Typically, they involve a group of citizens with varied backgrounds who meet to discuss issues of a scientific or technical nature. A conference has two stages: the first involves small group meetings with experts to discuss the issues and work towards consensus. The second stage assembles experts, media and the public where the conferences main observations and conclusions are presented.[161]

The common element to all the mechanisms is the deliberative component where participants are provided with information about the issue being considered. They are also encouraged to discuss and challenge the information and consider each other's views

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[159] Crosby, N, "Citizen Juries: one solution for Difficult Environmental Questions", in O Renn, T Webler and P Wiedemann, Fairness and Competence in Citizen Participation: Evaluating Models for Environmental Discourse (Dordrecht: Kluwer Academic Publishers, 1995).

[160] Daniel, P C, and O Renn , "Planning Cells: a Gate to 'Fractal' Mediation", in O Renn, T Webler and P Wiedemann, Fairness and Competence in Citizen Participation: Evaluating Models for Environmental Discourse (Dordrecht: Kluwer Academic Publishers, , 1995).

[161] Joss S "Danish consensus conferences as a model of participatory technology assessment: an impact study of consensus conferences on Danish Parliament and Danish public debate" (1998) 25 Science and Public Policy 2–22.

before making final decisions or recommendation for action. This is how Sabel, Fung, and Karkkainen succinctly described it:[162]

> ....among others this emergent regulatory system owes its success to a counterintuitive but durable form of practical deliberation between and among environmentalists, developers, farmers, industrialists, and officials from distinct, perhaps competing, subdivisions of government---parties who are conventionally thought to be antagonistic. In this problem solving process, disciplined consideration of alternative policies leads protagonists to discover unanticipated solutions provisionally acceptable to all. Further deliberation leads to successive re-definitions of self-interest that permit robust collaborative exploration, including revision of institutional procedures, and even what is feasible.[163]

With this great potential for better decision-making, environmental assessment has been seen as a deliberative tool that has the potential to improve environmental decision-making.[164] For some scholars, EA has the potential to be a decision process which includes deliberation, inherent learning and decision influence through stakeholder and public input.[165] A similar opinion has been expressed by Richardson: "What has been described as the 'communicative turn' in planning seems to be repeating itself in EA."[166]

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[162] Bradley C. Karkkainen, Archon Fung & Charles F. Sabel "After Backyard Environmentalism: Toward a Performance-Based Regime of Environmental Regulation**"** (2000) 44 American Behavioural Scientist 692-711

[163] Ibid at 4.

[164] Jelle Behagel & Esther Turnhout "Democratic Legitimacy in the Implementation of the Water Framework Directive in the Netherlands: Towards Participatory and Deliberative Norms"? (2011) 13 Journal of Environmental Policy & Planning 297–316.

[165] Judith Petts, Public participation and EIA. In Handbook of Environmental Impact Assessment, ed. J. Petts. (Oxford: Blackwell Scientific, 1999a), at 145–177. Vol. 1 also see Judith Petts, Environmental impact assessment versus other environmental management decision tools. In Handbook of Environmental Impact Assessment, ed. J. Petts (Oxford: Blackwell Scientific, 1999b), pp. 33–59, Vol. 1.

[166] Tim Richardson "Environmental assessment and planning theory: four short stories about power, multiple rationality and ethics" (2005) 25 Environmental Impact Assessment Review 341–365.

> Additionally, it is observed that the structures of deliberation encourage the deliberative democracy to provide ‘‘a concise and general summary of the requirements cited in EA research for impact assessment to achieve its analytical potential without stunting democratic participation.’’[167]

2.14 Deliberative Democracy and EA

The potential of deliberative democracy to influence better decision-making in the EA process is undisputed. The true deliberative potential of EA may rest not in opportunities for participation outlined by legislation or policy, but rather in the flexibility of the institutions. This involves implementing programs to create more opportunities for interaction with the public.[168] Furthermore, even if the intuitions create opportunities for participation in the EA process, it is not clear, so far in the literature, how that influences the final outcome of the process. To this end, the aim of this study is to contribute to understanding regarding the extent to which EA as a decision support mechanism facilitates citizen participation in inclusive and deliberative processes. Another aim is to provide an understanding of the extent to which the deliberative approach influences the final outcome of the EA process. This is necessary because while legislative provisions on the EA process facilitate public participation in Canada,

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[167] Baber Walter “Ecology and democratic governance: toward a deliberative model of environmental politics” (2004) 41 The Social Science Journal 331 at 335.

[168] Hans Wiklund supra note 55.

decision-makers are still vested with a great deal of discretion[169] with regards to how participation is carried out in respect to some of the process options.[170]

As well, the kind of decision-making process deliberative democracy enhances, and more importantly, what final outcomes to expect that legitimises the participation that would be acceptable to all stakeholders involved in the EA process must be understood clearly. Indeed, looking at the deliberative democratic approach, Dryzek talks about it as discursive democracy. Petts discusses it in terms of contestatory democracy, Young considers it as communicative democracy and Habermas says it is deliberative politics.[171] However, at the center of the deliberative democratic approach and, for the purpose of this study is the Habermasian discourse which fashions it as an ideal procedure for rational and democratic decision-making.[172]

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[169] Meinhard Doelle, supra note also see Bram F. Noble note 7 and Sinclair, AJ and AP Diduck note 49.

[170] CEAA supra note 2 at section 21.

[171] James Dryzek, Discursive Democracy: Politics, Policy and Political Science (Cambridge: Cambridge University Press, 1990) see also Pettit P, "Democracy, electoral and contestatory", in I Shapiro and S Macedo (editors), Designing Democratic Institutions, NOMOS 42 (New York: New York University Press, 2000) p. 105–144; Young I M, "Justice and communicative democracy", in R Gottlieb (editor), Radical Philosophy: Tradition, Counter- Tradition, Politics (Philadelphia: Temple University Press, 1993) p. 123–143; Jurgen Habermas, Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy (Cambridge MA: Polity Press,1996a) and Habermas, J (1996b), "Three normative models of democracy", in S Benhabib (editor), Democracy and Difference: Contesting the Boundaries of the Political (Princeton NJ: Princeton University Press, 1996b) p. 21–30.

[172] See Jane Holder supra note 50 at page 195 and Hans Wiklund note 84 at page 4 further details.

2.15 Deliberative Democracy, EA and the Governing Rules

Rather than breathe instructions on people or communities through the participation process in a take it or put up style of governance, the deliberative democratic ideal emphasis discourse among people. This enables them to contribute effectively by presenting their perspectives on issues that affect them. Public deliberation is seen as an avenue through which the education of citizen participants is paramount, the empowerment of communities is key, and that can result in fairer participatory processes, strengthen the quality of the decisions, and result in decisions that reflect modern social norms.[173]

In a deliberative process, three sets of termed universal pragmatic rules govern the process.[174] The first rule put forward by Habermas is based on the fact that "argumentation is designed to produce intrinsically cogent arguments with which we can redeem and repudiate claims to validity."[175] It stipulates that participants in discourse must make use of the same logical–semantic rules. For instance, they may not contradict themselves and they must use expressions in a consistent way over time as individuals and across groups.[176]

The second rule is premised on the principle that "arguments are processes of reaching understanding that are ordered in such a way that proponents and opponents …

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[173] Patricia Fitzpatrick, A. John Sinclair and Bruce Mitchell supra note 87 at 2.

[174] Hans Wiklund note 84 at page 5, Patricia Fitzpatrick, A. John Sinclair and Bruce Mitchell note 87 and Jurgen Habermas, Moral Consciousness and Communicative Action (Cambridge, MA MIT Press, 1990) at 86-89.

[175] Hans Wiklund supra note 84 at 5.

[176] Ibid Habermas 1990 at 87.

can test the validity claims that have become problematic". It states that participants must follow certain procedural rules, for instance, they must state and defend only what they believe, and they must provide reasons to justify their opinions.[177] The third rule is based on the notion that "argumentative speech is a process of communication that, in the light of its goal of reaching a rationally motivated agreement, must satisfy improbable conditions".[178]

The set of process rules insulates the communicative process from coercion and inequality and specifies that nobody with the competence to speak and act should be excluded from discourse. Furthermore, everyone is allowed to question or introduce any assertion and to express his/her needs, beliefs and wants, and that nobody should be prevented by external or internal coercion from exercising these rights.[179]

It is important to state that while it is difficult to pin point an ideal model for deliberative democracy, the literature indicates that these rules (the theory of argumentation, rational communication and the ideal speech) have largely informed the analysis of deliberative democratic potential, especially as it relates to EAs.[180] Apart from the academic literature that reflects the principles of deliberative democracy of public

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[177] Ibid at p 87.
[178] Ibid at 87.
[179] Ibid at 88-89.
[180] Juan R. Palerm "An empirical-theoretical analysis framework for public participation in environmental impact assessment" (2000) 43 Journal of Environmental Planning and Management 581, see also Thomas Webler, Hans Kastenholhz and Ortwin Renn "Public Participation in Impact Assessment: A Social Learning Perspective"(1995) 15 Environ Impact Assess Rev 443-463 Hans Wiklund Supra note 87.

involvement in the EA process; legislative provisions have also been complying with the elements of deliberative democracy.[181] Consequently, as described by Fitzpatrick, Sinclair and Baber: The structures for deliberation encouraged by deliberative democracy provide[182] ‘‘a concise and general summary of the requirements cited in EA research for impact assessment to achieve its analytical potential without stunting democratic participation.’’[183]

Nonetheless, as observed by some, for the deliberative democratic approach to achieve its aim of meaningful public participation (in addition to the lead taken by legislation in providing opportunities for public participation); there must be some flexibility in institutional frameworks to facilitate greater public participation in the EA process.[184] In this regard, a growing body of research evaluates EA, and the learning opportunities it creates for participatory aspects of the EA processes, based on criteria derived from communicative action and deliberative democratic tenets.[185] The next section, therefore, explores the literature on the opportunities for mutual learning in the EA process through deliberative democratic principles.

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[181] Judith Petts “Barriers to Deliberative Participation in EIA: Learning from Waste Policies, Plans and Projects” (2003) 5 Journal of Environmental Assessment Policy and Management 269-293.

[182] Patricia Fitzpatrick, A. John Sinclair and Bruce Mitchell Supra note 87 at 5.

[183] Walter F. Baber “Ecology and democratic governance: toward a deliberative model of environmental politics” (2004) 41 The Social Science Journal 331.

[184] See the abstract of Hans Wiklund note 84.

[185] Sinclair AJ, Diduck AP (2005) Public involvement in Canadian environmental assessment: enduring challenges and future directions. In: Hanna K (ed) Environmental Impact Assessment: Process and Practice (Toronto, ON, Canada Oxford University Press, 2005) p. 58-79.

2.16 Deliberative Democracy and Mutual Learning

It has been demonstrated in the literature that deliberative democracy aims to improve decision making by effectively involving stakeholders in discussions to reach conclusions that are mutually beneficial to all involved in the process. The resultant effect, among others, when the participation process employs the deliberative mechanism, is learning and awareness.[186] Notably, the view that participation encourages social learning is a central claim made for reflexive legal mechanisms.[187] This claim is made for regulation to be reflexive in the sense of both responding, in its form and content, to social contexts, and in triggering a range of responses from stakeholder in the process.

Social awareness denotes the internalisation of values, as well as the "accretion and assimilation of knowledge".[188] Holder indicates that learning is supposed to take place when individuals and organisations appreciate that their private interests are closely linked with broader social interests such as environmental protection. The result is that greater awareness may lead to behavioural altering and reordering, thereby, achieving the aim of environmental protection.

Creating opportunities for deliberation in the EA process has the potential to enhance learning as people participate, and this can lead to the development of new ideas, opinions, clarify doubts, and present facts that facilitate better resource management.[189]

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[186] Ibid and see also Jane Holder, supra note 50.
[187] Ibid.
[188] Jane Holder, supra note 50 at 197.
[189] Patricia Fitzpatrick, A. John Sinclair and Bruce Mitchell, supra note 87.

For example, since participation aims to make environmental issues public, civil society is increasingly well informed[190] about the risk and impacts associated with the environment and are better equipped to contribute to decision making. Therefore, the benefits of participation in the deliberative process are demonstrably evident: it ‘‘improves the moral, practical or intellectual qualities of those who participate: it makes them not just better citizens—though clearly this is crucial— but also better individuals”.[191] It is even contended that expanding opportunities for participation to encourage social learning has led to a growing concern with environmental justice.[192] To the extent that it relates to environmental assessment, a disproportionate burden of predicted impacts is imposed upon particular groups and areas.

It is quite evident that there is an important relationship between learning and deliberative democracy. Despite these important relationships, the concept is usually not adequately represented in the deliberative democratic discourse.[193] It is observed that when participation is encouraged in the EA process, it engenders learning that facilitates sound resources management, and that it also empowers local communities to assume greater control of resource decisions that affect their lives.[194] While scholars in the EA community have recognised that deliberative democracy has theoretical and practical

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[190] Jenny Steele “Participation and Deliberation in Environmental Law: Exploring a Problem-Solving Approach” (2001) 21 Oxford Journal of Legal Studies 415-442.

[191] Maeve Cooke “Five Arguments for Deliberative Democracy” (2000) 48 Political Studies 947-969 at 948.

[192] Jane Holder supra note 50.

[193] Patricia Fitzpatrick, A. John Sinclair and Bruce Mitchell supra note 87.

[194] Alan Diduck “Critical education in resource and environmental management: Learning and empowerment for a sustainable future” (1999) 57 Journal of Environmental Management (1999) 85–97 at 87.

elements,[195] evaluating the EA process options in a comparative manner to understand the extent to which it encourages mutual learning through participation is underexplored.

The major reason inadequate attention has been paid to the learning outcomes of participation are that public participation in the EA process focuses on process and access, and not on outcomes.[196] Indeed, scholars have advocated for outcome based EA, rather than process. However, these concerns are in other areas of the EA process. For example, some researchers have argued that participation in EA decision-making could and should be directed towards ensuring sustainability outcomes.[197] Others too have promoted the need to carefully consider public participation in strategic environmental assessment (SEA).[198] This has necessitated the need to pay more attention to new forms of environmental governance that stimulate learning.

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[195] Ibid and also see Patricia Fitzpatrick, A. John Sinclair and Bruce Mitchell supra note 87.

[196] Meinhard Doelle and A. John Sinclair "Time for a new approach to public participation in EA: Promoting cooperation and consensus for sustainability" (2006) 26 Environ Impact Assess Rev 185– 205.

[197] Robert B.Gibson, "Sustainability assessment: Basic Components of a Practical Approach" (2006) 24 Impact Assessment and Project Appraisal 170 see also Lawrence D. "Integrating sustainability and environmental impact assessment" (1997) 21 Environ Manage 23 and Bram F. Noble "The Canadian experience with SEA and sustainability" (2002) 22 Environ Impact Assess Rev 3.

[198] Mario Gauthier, Louis Simard and Jean-Philippe Waaub "Public participation in strategic environmental assessment (SEA): Critical review and the Quebec (Canada) approach" (2011) 31 Environ Impact Assess Rev 48.

2.17 Deliberative Democracy, EA and Learning

As discussed earlier, Habermas has put forward three sets of universal pragmatic rules that govern the deliberation process.[199] From these rules of discourse, four principles have been derived by Wiklund,[200] against which institutional arrangements and practices can be assessed in the deliberative democratic EA process. These principles will form the framework for evaluating the comprehensive study and the joint review panel case studies in Chapters 4 and 5 as facilitated through EA. The four principles of the Wiklund framework adopted here and have been utilised by other scholars[201] are:[202]

- Generality: this principle stipulates that discourses shall be open to all competent speakers whose interests are, or will be, affected by a matter of common concern or the norms adopted to regulate a matter. The principle advocates for at least all actors whose interest would be affected in the deliberative process to be involved.
- Autonomy: This principle states that participants in a discourse should be granted the right to take sides with or against their validity claims. Furthermore, participants shall be granted the right to effective participation, that is, equal opportunities to present and challenge arguments and counterarguments in the deliberation process.
- Power neutrality: This principle has it that distortions related to administrative, economic and cultural power must be neutralized to ensure that only the ‘‘forceless faces of the better arguments’’ (or communicative power)[203] affect the outcome. In order to produce legitimate and rational outcomes in the deliberation process, asymmetries of power with distorting effect must be neutralised. This is also premised on the fact that administrative power finds expression in formal organisation in general and the political system in particular, economic power follows the logic of

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[199] See the section on Deliberative Democracy, EA and the Governing Rules in chapter 2.

[200] Hans Wiklund note 84 at 5.

[201] These principles which include generality, autonomy, power neutrality and ideal-rule taking have been adopted by scholars like Patricia Fitzpatrick, A. John Sinclair and Bruce Mitchell to analyse the Mackenzie Valley project in the Northern Territories of Canada.

[202] Hans Wiklund, supra note 84.

[203] Ibid at 5.

market exchange and is represented by financial resources, and cultural power finds expression in values and norms generated in the life world.

- Ideal role-taking: Here, participants must adopt attitudes of reciprocity and impartiality. Reciprocity implies that participants must talk and listen sincerely and that they must not act strategically. Impartiality means that participants engage in sincere attempts to view matters of common concern from the perspectives of others and, against the background of this multitude of views, try to find an independent stance.

The framework would be used to determine the deliberative potential of EA, and it would be assessed through an analysis of the EA process in the two process options chosen to understand how the four principles are reflected in the process. The study adopts these principles because it provides democratic theoretical foundation for analysing EA.[204] The framework is implemented in this study by structuring operational questions (Table 1.) These questions are derived from Wiklund, as modified in Fitzpatrick, Sinclair & Mitchell. The questions conform to the purpose of this study and the literature on learning or transformative learning,[205] as well as deliberative democracy.[206] The questions are used to evaluate the case studies and to illustrate the extent to which participants are accommodated in the deliberative process. Ultimately, the goal is to facilitate understanding of the extent to which the process insulates the communicative process from coercion and inequality and, thus, presents people with the competence to speak and not be excluded from the EA discourse.

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[204] Ibid.

[205] Jack Mezirow and Associates, Learning as transformation: critical perspectives on a theory in progress (San Francisco Jossey-Bass, 2000); Judith Petts "Barriers to Deliberative Participation in EIA: Learning from Waste Policies, Plans and Projects" (2003) 5 Journal of Environmental Assessment Policy and Management 269-293.

[206] John Dryzek, Deliberative Democracy and Beyond: Liberals, Critics, Contestations (Oxford: Oxford University Press, 2000).

Theoretical principles (Wiklund, 2005 and Fitzpatrick, Sinclair & Mitchell, 2006) and operational questions

Principles	Operational questions
Generality: All those affected, or at least their interest shall be included Autonomy: Everyone included shall be granted the right of effective participation Power neutrality: Distortions related to administrative, economic and cultural power must be neutralised to ensure that only the forceless faces of the better arguments' affect the outcome Idea role taking: Participants must adopt attitudes of reciprocity and impartiality	Was the EA open to interested parties? Did participants represent a variety of interest? How was the public engaged in the EA? Did the EA provide resources to ensure alternative perspectives were presented? Were steps taken to address the cross-cultural context of the EA? Did participants learn as a result of the EA? What qualities of the process best facilitated learning?

In summary, the discussion above demonstrates that there are key issues and concepts that affect public participation in the EA process in Canada. While some of these issues have been well addressed in legislation and through EA practice, concerns still remains regarding how this facilitate public participation in the EA process. It was quite clear from the discussion that even if the public participate, it is not clear the extent to which their concerns are addressed by project proponents, RAs and review panels. It was evident that the use of discretion by RAs in the implementation of public participation is a common practice despite attempts by legislation to ensure certainty. It is therefore necessary to evaluate in practical form, through EA case studies how intervenor

concerns have been addressed. It was also evident that EA is conducted through different process options and whether intervenors views would be addressed could be dependent on the process option used. In this regard, in chapters 4 and 5 comprehensive studies and review panels' cases are discussed to determine which option results in uptake of intervenor concerns. The theoretical framework discussed would also be used to evaluate how deliberative, the EA process was in these cases and whether intervenors learnt from the process. The next chapter presents the methods that used in evaluating the cases that are discussed in chapters 4 and 5.

CHAPTER III: STUDY DESIGN, METHODS AND RATIONALE

3.1 Introduction

This Chapter reviews the study design, methods used and data analysis techniques employed. It starts with a brief discussion of the qualitative approach with emphasis on case study strategy, and proceeds with the rational for the choice of case study design with details of how this design is appropriately positioned to help achieve the objectives of this research.

3.2 Approach

This research employs multiple methods, integrates distinctions, frameworks, and insights from various aspects of EA literature. Researchers like Peshkin observes that research that uses different lenses to expanding efficacy, creates new focal points and angles to understand what is being studied.[207] This study applies a range of qualitative methods, including academic literature review and case study to answer the objectives of the study. It also applies various perspectives to analyse the extent to which RAs and review panels are responsive to intervenor concerns in the EA process.

This qualitative approach utilises comparative case study strategy to address the objectives of this study. Since qualitative research and the application of its diverse techniques does not privilege any particular set of methodological approach, it allows for use of various techniques.

The use of a qualitative case study strategy in this study to compare the independence of Joint Review Panels and Comprehensive Studies as EA process options

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[207] Alan Peshkin, "Angles of Vision: Enhancing Perception in Qualitative Research" (2001) 7 Qualitative Inquiry 238.

benefits from the method's ability to construct and establish the validity and reliability[208] of evidence to ground the analysis and conclusions yielded by the sources of data utilized for the purposes.[209] The traditional conception is that case studies are best suited for exploratory research. However, Yin[210] indicates that the method can also be used for descriptive and explanatory investigations. Though this study is mainly descriptive, it has explanatory and analytical aspects.

3.3 Case Studies' Selection

The case studies represent a range of contexts (contaminated sites remediation, Quarry projects and mine projects), from different provinces in Canada. In the four case studies, two different EA processes are used, so the study compares two EA process options. The discussion first provides a descriptive summary of each case, setting out the institutional and regulatory context in which each EA process occurred. Following this descriptive overview, a detailed look at each of the two EAs follows. The work situates public participation and EA, and then uses the case studies to yield new qualitative evidence based on concerns raised by intervenors and how they were responded to by RAs, review panels and proponents.

The rationale for the four case studies was to allow for precision and confidence in the validity of the findings.[211] The cases selected under the comprehensive study option

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[208] See the intervenor comments tracking tables in Appendices A-D for the data upon which the validity of the analysis in this study is grounded.

[209] Yin, R. K. Case study research: Design and methods (3rd ed.). (Thousand Oaks, Calif.: Sage Publications, 2003) p.97.

[210] Ibid at 97.

[211] In general, for the case of a probability sampling, the bigger the sample size, the higher the precision of its estimates. This is also premised on the principle that the

involved projects carried out under CEAA from 2004 to 2010, but before the 2010 amendments to CEAA. The comprehensive cases utilized are Galore Creek Copper-Gold-Silver Mine Project and Mount Milligan (Mt) Copper-Gold Mine Projects,[212] and the Review Panel cases are the Whites Point Quarry and Marine Terminal and the Sydney Tar Ponds and Coke Ovens Sites projects.[213]

The selection of the two comprehensive studies started with ten available cases as determined by the following criteria:

- The EA was conducted by way of comprehensive study
- It was conducted based on CEAA rules of 2004-2010 governing comprehensive studies
- There were hearings during the public consultations
- The assessment process was conducted jointly by federal and provincial authorities

The two cases that met all the criteria were the Mt Milligan Gold-Copper Mine in North-Central British Columbia, proposed by Terrane Metals Corporation, and the Galore Creek project proposed by NovaGold. The panel cases were chosen because of their

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larger the sample, the smaller the likely error in the estimates. Though four cases may not be too large for that purpose, for the purpose of this study, four cases allows for a reasonable deduction of how responsive RAs and Panels are to intervenor concerns in the EA process. See also Edward, O Laumann et al. "The Study Design for a Survey of American Sexual Behaviour" in Michael Carroll & Jerry P White. Images of Society (Toronto: Nelson Education, 2009) Ch 4 at 19.

[212] Canadian Environmental Assessment Agency, Comprehensive Study Report: Galore Creek Copper-Gold-Silver Mine Project, Joint Report, (B.C, 2007) at 16 CEAA Online: http://www.ceaa.gc.ca/050/details eng.cfm?evaluation=31649&ForceNOC=Y; and Canadian Environmental Assessment Agency, Comprehensive Study Report Mount Milligan Copper-Gold Mine Project (B.C, 2009) online BC < http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=39778>.

[213] Canada, Environmental Assessment Agency, Environmental Assessment of the White Point and Marine Terminal Project (Joint Panel Review Report, 2007) (Chair: Robert Fournier); and Canada, Environmental Assessment Agency, Environmental Assessment of the Sydney Tar Ponds and Coke Ovens Site Project (Joint Review Panel Report, 2006).

significance to EA. For example, the Whites Point project was rejected by government decision-makers after the EA which is a rare occurrence in the EA process. This is the second time a project was rejected in the Canadian EA history. The Tar Ponds project was chosen because of its historical significance. While the public wanted the contaminated ponds to be cleaned up, they were opposed to the proponent's proposed remediation approaches which are discussed in detail in chapter 5. Public involvement was facilitated by a Joint Action Group (JAG) made of up community members affected by the ptoject long before the panel was appointed.

The main data collection method, include libraries, internet, phone calls, CEA Agency public registry, which spans several volumes.[214] This material, including the impact statement, information requests (IRs), technical session minutes, EA publications, hearing transcripts, and correspondences, were reviewed with reference to key constructs related to participation and learning. Many of the results on learning that follow are often represented by direct quotes from these data.

In the comprehensive study, research used the following documents:

- a description of the project at the start of the environmental assessment;
- the final comprehensive study report released for public comment;
- individual submissions from the public;
- the letter to the Minister summarising public comments on the report; and
- the final decision by the Minister and the Responsible Authority.

Similarly, for the joint panel review, the research explored information ranging from:

- the environmental impact statement prepared by the proponent before the

[214] The main source of data for this study is review of documents. This means that there were no field or telephone interviews involved.

assessment is carried out;
- hearing and written submissions by government departments;
- intervenors, including non-governmental organisations, civil society organisations and individual members of the public; and
- the final joint review panel report on the environmental assessment.

These documents were selected by using purposeful sampling, which involved deliberately selecting key documents that contained public involvement events and other relevant information.

Preparation of the study in chapter two also involved the following main components: an academic literature search and synthesis of EA review materials from scholarly analyses, submissions to, and results from the suite of Canadian EA reviews. Some of these sources are Duck[215] and CEAA Regulatory Advisory Committee reports. The EA literature search, and the legislative and administrative reviews, could help understand differences concerning key elements, such as the appointment of the competent and responsible authorities, screening and scoping, environmental components to be considered during impact analyses and mitigation design, temporal and spatial frameworks for EA processes, procedures for review and decision making, public notification and follow-up. The findings of this review also provide information on specific shortcomings of the two EA process options.

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[215] Duck, P., ENGO concerns for the review of the Canadian Environmental Assessment Act," (Ottawa: Environmental Planning and Assessment Caucus, Canadian Environmental Network, March 2008).

3.5 Analysis Techniques and Sampling Procedure

The data was analysed using qualitative methods, without the use of qualitative software. During the data gathering process, certain themes emerged with respect to the issues and concerns raised by intervenors. These themes and ideas were identified through content analysis[216] within intervenor groupings (First Nations, ENGOs, Government Agencies and the public including local governments and community members).[217]

The case studies are plotted on tables 1-4 based on intervenor comments (see the Tables attached as Appendices A-D). The tables summarise general concerns raised by intervenors relating to project design and the changes made by the proponent. The study examines general concerns, and changes that come in the form of recommendations, commitments and mitigation measures put in place by the proponent in response to public comments. The tables track intervenor comments, and RAs' and proponent's responses. The results presentation of the comprehensive studies are structured in two steps: step one include intervenor concerns, commitments made by proponents to address intervenor concerns, and step two is based on the RAs' regulatory requirements or authorisation conditions. In the panel reviews, the results are presented based on intervenor concerns, proponents' responses and panel recommendations. The tables' track which issues were fully addressed (FA), partially addressed (PA), not addressed (NA) and not sure (NS). Concerns were said to be fully addressed if intervenors indicated that they were satisfied

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[216] Babbie, E R. The basics of social research (Belmont: Thomson Wadsworth, 2008).

[217] See intervenor comments tracking tables in Appendices A-D for further details.

with proponents' responses, or there was an obvious change to project design. Concerns that were partially addressed were those that intervenors expressed dissatisfaction and wished proponents had done more to address the issue. Also, when certain regulatory requirements were not met or were addressed by proponents but intervenors were not aware of them. The 'not sure' ratings were triggered if it was difficult to determine how effective proponents' mitigation measures address the issues. Finally, a concern was not addressed at all if it was not adress in any meaningful way by the proponent or the panel. Also, for each case study, results are quantitatively presented (see Tables in Appendices for details), followed by a detailed discussion and analysis of intervenor concerns around specific themes

3.6 Data Limitation

This work has inherent data limitations and assumptions. With respect to public concern in relation to the projects, no attempt is made to weight the analysis to reflect the number of individuals and issues represented by each submission because of the large volume of data involved. For example, petitions are inherently difficult to gauge owing to unknown demographics and geographical representation. It is also difficult to appreciate whether intervenors were fully cognizant of the nature and intent of the submissions and their relevance to a specific issue or concern. Similarly, feedback with stated or inferred representation of constituents is difficult to track.

It was unable to determine what factors RAs take into consideration in comprehensive studies before accepting commitments submitted by proponents to meet the requirements for granting approval certificates. This is because though the

commitments were submitted under provincial legislation, they formed the basis upon which the federal authorities granted approvals to the projects. In most cases, it was also difficult to determine the level of satisfaction of intervenors with responses from RAs. This is because RAs respond to comments sent by intervenors, without further feedback from intervenors. Despite the significant findings yielded by the PRs, the study cannot make general conclusions or prediction from them. This is due in large part to the dynamic and fluid nature of the EA process. For instance, panel recommendations are not binding on government decision makers and, therefore, a different set of panel conducting the same EA under the same rules could reach a different decision. A different decision could also be reached by different government decision makers under the same rules. Furthermore, the decisions of the panel could also be determined by the independence of the panel during the EA process. The limited nature of the data does not also allow for generalisation of these findings. Perhaps a longitudinal research is needed for a complete picture of the outcomes of intervenor comments in the EA process. Nevertheless, the findings provoke thoughts and give an indication of the power of the public to influence the EA process if the process is transparent.

CHAPTER IV: PARTICIPATION, INFLUENCE AND THE DELIBERATIVE IDEAL: A CLOSER EXAMINATION OF COMPREHENSIVE STUDY PROCESS OPTIONS UNDER CEAA

4.1 Introduction

The results presented in this chapter are based on an analysis of the Galore Creek and Mt Milligan comprehensive study projects[218] carried out under CEAA. It investigates the extent to which Responsible Authorities (RAs) and proponents are responsive to intervenor comments in comprehensive study conducted under the CEAA. The chapter focuses on the comprehensive study process option under the CEAA. It discusses its regulatory requirements and the Environmental Assessment process it provides for. The study would reference other process options and compare where they offer opportunities to address limitations of the comprehensive study process option.

The review discusses how intervenor comments changed the project in its various stages using intervenor comments tracking tables.[219] The review falls into four main parts. Part I discusses the comprehensive study regulatory requirements and the EA process, namely, the comprehensive study process option under CEAA based on the rules that govern comprehensive studies after the 2003 amendments to CEAA and before the 2010 amendments. Part II analyses comprehensive study projects that were carried out

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[218] Canadian Environmental Assessment Agency, Comprehensive Study Report: Galore Creek Copper-Gold-Silver Mine Project, Joint Report, (B.C, 2007) at 16 CEAA Online: http://www.ceaa.gc.ca/050/details eng.cfm?evaluation=31649&ForceNOC=Y; and Canadian Environmental Assessment Agency, Comprehensive Study Report Mount Milligan Copper-Gold Mine Project (B.C, 2009) online BC < http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=39778>.

[219] These Tables are added as Appendices at the tail end of the thesis because they too large to be incorporated in the text.

from 2004 to 2010 under CEAA. The discussion in this part centers on the federal and provincial regulatory requirements and the EA process in the Galore Creek and Mt Milligan projects.

Part III focuses on the projects. It examines intervenor comments in terms of their broad concerns with environmental, socio-economic and socio-cultural issues. It also tracks the commitments and mitigation measures proposed by the proponent to address them. The discussion also tracks responses to intervenor concerns by the RAs, and the conditions, if any, that they imposed on the proponent. It also discusses the project as initially proposed without public comments, and the project as approved, taking into consideration intervenor comments. Part IV ties up the discussion with findings in terms of who controls the EA process, its substantive decisions, and whether RAs and the proponent were responsive to intervenor comments.

4.2 Comprehensive Study (CS) under CEAA

4.2.1 Legal Basis of the Process

The Canadian Environmental Assessment Act (CEAA) 1992[220] was amended in 2003 as part of a five year review process required by the Act.[221] The goal of the review, among others, was to ensure more meaningful public participation in the EA process.[222]

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[220] Canadian Environmental Assessment Act RSC 1992 c 37.

[221] Bill C-9, An Act to amend the Canadian Environmental Assessment Act, 2nd sess., 37th Parl., 2003.

[222] Hugh J. Benevides "Real Reforms Deferred: Analysis of Recent Amendments to the Canadian Environmental Assessment Act" (2004) 13 JELP 196.

This section describes the rules that govern CS processes based on the 2003-2010 amended CEAA provisions, as a background to analyzing the Mt Milligan and Galore Creek Projects that were carried out under these rules.

The legal basis for a comprehensive study process conducted under CEAA, based on the 2003 amendment, is provided under sections 21-23 of the Act.[223] Comprehensive studies and screening are often regarded as alternative forms of self-assessment. A comprehensive study has mandatory requirements, including mandatory public participation at four stages in the process: Responsible Authorities (RAs) must ensure public consultation with respect to the proposed scope of the project and the proposed factors to be considered in environmental assessment and the proposed scope of those factors; public concerns in relation to the project; the project potential to cause adverse environmental effects; and the ability of a Comprehensive Study to address issues relating to the Project.[224] Additionally, participant funding, direct involvement of the Agency as Federal coordinator, and involvement of the Minister of Environment are other major characteristics of CS under the 2003 amended CEAA.[225]

There are notice and registry requirements to be met in the CS process.[226] Generally, the Act is triggered when there is a project that is not excluded from assessment under CEAA for which federal authority is required to make a section 5

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[223] See CEAA new sections 21-23 and also supra note 5 at 21.
[224] See CEAA section 21(1).
[225] See CEAA new section 58(1.1).
[226] CEAA section 22.

decision.[227] Section 5 decisions are where a federal authority is the project proponent; provides financial assistance other than tax relief; transfers federal land for the project; or grants a permit, licence or approval for the project.[228] Comprehensive study is conducted if a proposed project that has triggered CEAA meets one of the items[229] described in the Comprehensive Study List Regulations[230] in the CEAA.

In comprehensive studies, it is the RAs who, for the most part, control and conduct the EA process. But RA(s) can delegate any part of the project to the proponent.[231] On the other hand, according to the rules of CEAA after the 2003 amendments, the Canadian Environmental Assessment Agency became the Federal coordinator of the process,[232] while the Minister of the Environment has oversight responsibility to make the final EA decision.

The starting point in a comprehensive study is that once a project has been determined to be on the comprehensive study list, coordination is required for the process to be carried out.[233] The agency also facilitates communication and cooperation among federal authorities and other participants, such as the provinces, Crown corporations,

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[227] See also Law List Regulations, SOR/94-636.

[228] CEAA supra section 5.

[229] See CEAA Comprehensive Study List Regulations SOR/94-638 online <http: //laws-lois.justice.gc.ca.>.

[230] CEAA supra note 2 at section 21.

[231] CEAA section 17.

[232]Bill C-9, An Act to amend the Canadian Environmental Assessment Act, 2nd sess., 37th Parl., 2003 at 17.

[233] See CEAA new section 12(1).

harbour/port authorities, band councils and specified Aboriginal governments or governing bodies, foreign governments and international organizations.[234]

A comprehensive study demands a scoping process which requires a determination by responsible authorities on the scope of the project and the scope of assessment. Public participation is mandatory in this aspect as well. In addition, every comprehensive study must include: the purpose of the project; alternative means of carrying out the project that are technically and economically feasible; environmental effects of any such alternative means; need for, and requirements of, any follow-up program; and capacity of renewable resources likely to be significantly affected by the project to meet the needs of the present and those of the future.[235] Significant in the comprehensive study process is that scoping runs alongside a final track determination as to whether to continue with the comprehensive study process, or refer the project to a review panel. If at that point a comprehensive study report is ordered, the project will remain on that track; it will not be referred to the review panel track.[236]

Where a project is listed on the comprehensive study list, the RA is required to ensure that adequate notices are given for public participation. Notice for public participation must be posted on the internet site of the proposed project for at least thirty days before an environmental assessment decision statement is issued by the Minister of

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[234] Supra note 13 at 18.
[235] See CEAA section 16(2) factors
[236] Hugh J. Benevides "Real Reforms Deferred supra note 6 at 208.

the Environment.[237] After consulting the public, the RA reports to the Minister of the Environment on the scope of the project, scope of assessment, public concerns, the project's potential to cause adverse environmental effects and the ability of the comprehensive study to address the issues of concern raised regarding the execution of the project. The RA must, in the same report, recommend to the Minister whether to proceed by comprehensive study, or refer the project to panel review or a mediator.[238]

At this stage, if the project remains subject to a comprehensive study, public participation continues until the final comprehensive report is prepared, that is, before any decision is made regarding whether the project is likely to cause significant adverse effects to the environment. In accordance with the Act, the Agency is required to notify the public that the report is available, indicate where it is accessible from, and indicate the deadline for submission of public comments.[239] The Minister is required to issue a final EA decision, but before that is done, public comments filed on the EA report must be considered prior to the deadline for the public to do so. In this regard, the Minister must issue an EA decision statement setting out his opinions about the likelihood of the project causing significant adverse environmental effects, and any mitigation and follow-up measures that may be required.[240] Before issuing this statement, the Minister may

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[237] CEAA, supra note 1 see section 23.
[238] CEAA, supra note 1 see section 21(2).
[239] CEAA, supra note 4 see section 23(3).
[240] CEAA, supra note 4 see section 23.

request further information from federal authorities in relation to the project, or from the proponent.[241]

Based on the Minister's findings, the responsible authority is required to take the appropriate action, such as send the project back to the RA for a decision under section 37 of the Act as to whether the project should be allowed to proceed.[242] Section 23 of the Act contains more specific notice requirements applying to comprehensive studies. For example, the Minister is required not to make a section 23 decision until thirty days after the notice requirements have been satisfied. These requirements, as provided in section 23, include a notice of commencement of the EA, the scope of the project and scope of assessment determinations, the final track decision, and notice of the availability of the comprehensive study report for comment. It is, therefore, apparent that the public has a minimum of thirty days to review all the major process decisions of a comprehensive study report. It has been said that this is inadequate time for the public to consider the comprehensive study report[243] because of its voluminous nature.

The cases selected for this study are joint assessments between the federal and provincial authorities. This means that process harmonization to undertake a comprehensive study is an option available to the federal and provincial authorities for carrying out an EA. As discussed in the following sections, as long as all the

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[241] CEAA, supra note 4 see section 23.
[242] CEAA, supra note 4 see sections 37 and 23.
[243] Hugh J. Benevides "Real Reforms Deferred supra note 5 at 210.

requirements for conducting comprehensive studies under CEAA are met, joint scoping and joint comprehensive study reports can be done.

As indicated, the two cases discussed here are the Nova Gold Canada Inc. Proposed Galore Creek Copper-Gold-Silver Mine Project in North Western British Columbia, and Terrane Metals Corporation Proposed Mount Milligan Gold-Copper Mine in North-Central British Columbia. The history and key features of each case study is provided below, preparatory to undertaking a detailed analysis of the two cases. As the focus of this study is on public participation, the analysis of these cases dwells, for the most part, on those aspects of the reports that deal with public participation. The next section discusses the Galore Creek project, first, by discussing the EA process. A brief description of the project as proposed is also given. The third part analyses the role of intervenors in influencing changes to the project.

4.3 Case Study One: Project Description Galore Creek Copper-Gold-Silver Mine Project

This was a proposal to construct, operate, and decommission a copper-gold-silver mine. The work comprises several components: the construction of an access road, including bridges and tunnel, a slurry concentrate pipeline, and a 138 kV electrical transmission line. Other aspects are mine pre-stripping, waste rock dump preparation, water diversions, and tailings dams for the tailing impoundment areas. Also to be built are a concentrate processing plant and supporting facilities and infrastructure. An airstrip would be established at Porcupine River, and camps would be constructed to support the development of the mine. The mine was estimated to have an operating life of more than

20 years. It would provide 553 permanent full-time jobs during operation and 900 full-time jobs during the three year construction period. It was also estimated that over the life of the mine, 5.9 billion pounds of copper, 3.9 million ounces of gold and 40 million ounces of silver would be produced.

The proposed open-pit mine would process up to 60,000 tonnes per day of ore and produce up to 2,000 tonnes per day of gold-copper concentrate. The concentrate would be transported via a buried pipeline along a 125 km single lane access road to a facility where the concentrate would be dewatered and then trucked via Highway 37 to the port of Stewart for shipment to smelters overseas. The project is proposed to be built in and around the Galore Creek Valley, which is located in a remote mountainous terrain, approximately 260 km northwest of Stewart, British Columbia. The property is within the Stikine River drainage, which empties into the Pacific Ocean near Wrangell, Alaska.[244] A water treatment facility associated with concentrate dewatering would treat and discharge approximately 660,000 m^3 of water annually into the Iskut River. In June 2005, the proponent proposed a modified northern route to limit the road to a single lane and utilize a pipeline to transport concentrate to the highway. This modified northern route has become the preferred access route for the project. Construction is expected to take more than three years. Against the foregoing factual background on the project, the issue next is how its acceptability fits within the federal EA process.

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[244] See the Comprehensive Study Scoping Document NovaGold Canada Inc. Proposed Galore Creek Copper-Gold-Silver Mine Project, in Northwestern British Columbia (CEA Registry, 2005). Online NWBC<http: //www.eao.gov.bc.ca.>.

4.3.1 Federal EA Process

In terms of the EA process under the CEAA, the Galore Creek[245] project was assessed by way of comprehensive study under the post 2003 amended CEAA regulations. In this regard, there was a final track decision to proceed by way of comprehensive study instead of a panel review early in the process.[246] The mandatory public involvement at the four stages of the process, including scope determination, the final process decision, the assessment, and the final CEAA decision applied. The participant funding provided under the amended CEAA was also made available by the Agency to enable intervenors to participate.[247] The RAs in this project included: Natural Resources Canada (NRCan),[248] Transport Canada (TC),[249] Fisheries and Oceans Canada (DFO)[250] and Environment Canada (EC). They jointly determined that the proposed

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[245] British Columbia Environmental Assessment Office, NovaGold Canada Inc. Proposed Galore Creek Copper-Gold-Silver Mine Project, Comprehensive Study Report (BC, 2007), online BCEA<www.gov.bc.ca.>.

[246] The Environmental Track Report prepared by the RAs Proposed Galore Creek Copper-Gold-Silver Mine, (British Columbia, 2007) BC online< http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=8858>.

[247] Canadian Environmental Assessment Agency, Notice of Commencement of an Environmental Assessment: Galore Creek Copper-Gold-Silver Mine Project, CEAA Online: <http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=31649&ForceNOC=Y, also see case study one above.

[248] NRCan would need to issue a permit or license for an explosives factory and magazine under paragraph 7(1) (a) of the Explosives Act.

[249] Transport Canada would likely need to issue approval(s) pursuant to subsection 5(1) of the Navigable Waters Protection Act for the construction of bridges or other structures over navigable waterway(s) associated with: the access road from Highway #37 into the Galore Creek Valley, the construction of a bridge across the Porcupine River, containment dams required for the construction of the Tailings Impoundment Area (TIA), and some of the pipeline crossings.

[250] DFO would likely need to issue authorizations pursuant to subsection 35(2) of the Fisheries Act for the harmful alteration, disruption or destruction of fish habitat

Galore Creek Copper-Gold-Silver Mine development would likely require specific regulatory authorizations or approvals from each department. Consequently, this triggers the need for an environmental assessment under the Canadian Environmental Assessment Act (CEAA). Environment Canada (EC) and Health Canada (HC) participated in the environmental assessment process as Federal Authorities (FAs) to provide specialist knowledge for environmental assessment of the project.

The proponent submitted the application for an environmental assessment certificate to the Environmental Assessment Office (EAO) pursuant to the British Columbia Environmental Assessment Act (BCEAA).[251] As well, the project would have potential transboundary effect, thus engaging, particularly, the Boundary Waters Treaty,[252] Pacific Salmon Treaty,[253] and the International River Improvements Act[254]. Therefore, during the EA review process, U.S federal officials and Alaska State Agencies were invited to participate in the public consultation process. There were some intervenors in Alaska who were critical of the down stream effects of the projects but

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resulting from stream crossings and the infilling of water bodies associated with: the access road from Highway #37 into the Galore Creek Valley, the ore concentrate pipeline and the diesel fuel pipeline following the road corridor from the plant site in the Galore Creek Valley to Highway #37, the 1525-metre airstrip along the south side of the Porcupine River and the construction of a bridge across the Porcupine River.

[251] British Columbia Environmental Assessment Act, RSBC 1996, c. 119, s 2.

[252] *Boundary Waters Treaty Act* RSC, 1985, c. I-17.

[253] Pacific Salmon Treaty Act of 1985.

[254] International River Improvements Act RSC, 1985, c. I-20.

majority of them were in favour of the project and the proponent proposed mitigation measures.[255]

In accordance with section 21 of CEAA, the RAs invited written public comments regarding the proposed scope of the project and the ability of the comprehensive study to address issues relating to the project. Public comments on the scope were invited by placing advertisements in local newspapers in and around the project area, and on local radio stations in Vancouver. In order to achieve the cooperative provincial/federal review of the project, the Responsible Authorities shared the formal comment period on the Application as prescribed in the BCEAA from July 10 to September 8, 2006.[256] A third opportunity for public input into the project and the associated environmental assessment was held during the federal public comment period on the Comprehensive Study Report (CSR).[257] There were both proponent and Government led First Nations consultations.

As a requirement under the Public Consultation Policy Regulation,[258] the proponent, NovaGold, provided public notice of the availability of the application and the duration of the public comment period on the CSR. Seven days notice was provided before the start of the formal public comment period, and again one week prior to the close of the public comment period. NovaGold also provided public notice of the open

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[255] See NovaGold Canada Inc. Proposed Galore Creek Copper-Gold-Silver Mine Summary of Public Consultation Activities (B.C, 2006) online NovaGold Inc< www.novagold.net>.

[256] See Proposed Galore Creek Copper-Gold-Silver Summary of Consultation Activities from June- September 2006.

[257]See Galore Creek Comprehensive Study Report 2007 section 4.3.3 at 22. The report did not indicate how long this lasted.

[258] Public Consultation Policy Regulations, Galore Creek CSR, 2007.

houses seven days prior to the date of the event, and again closer to the event date. Notification of the submittal of the application and request for public comments were advertised in conjunction with the notice of upcoming public open houses. Advertisements were placed in newspapers circulated in the affected communities of Smithers, Terrace, Prince Rupert, Kitimat, Nass Valley, Hazelton, Stewart, and Wrangell and Petersburg, Alaska. The distribution of the notices also included First Nations Band and Council Offices, municipal, provincial and U.S federal regulators.

There were a total of eight public open houses held during the comment period on the CSR, and these went on for 60 days. The open houses were well attended: a total of 141 people attended them, and there were sign in sheets for those who wished to provide written comments. According to the proponent coordinated public consultation report, the most commonly asked questions during the open houses in the BC communities of Smithers, Stewart and Terrace were about: employment opportunities, training, shift rotations, and employee pick-up locations.[259] The report further indicates that, the route chosen for the access road, the general description of road, and access to and the use of the road both during operation and after mine closure were the other concerns raised. Questions were also raised regarding operational infrastructure and processes, power consumption levels, power source / supply, power transmission line, mining development schedule, mine site description, the mining and milling process, and operational water

[259] See NovaGold Canada Inc. Proposed Galore Creek Copper-Gold-Silver Mine Summary of Public Consultation Activities (B.C, 2006) online NovaGold Inc< www.novagold.net>.

discharge. Table 1 below represents a summary of public participation activities in the Galore Creek CS project.

Table 1

Public Participation Activities Galore Creek Comprehensive Study Project 2007

Activity	Organisation
Distribution of information for public participation (PP) in Comprehensive Study	BC Environmental Assessment Office EAO, CEA Agency &Federal RAs
Open Houses and Oral Hearings Pre-application stage	Project Proponent
Public Comments on Draft Terms of Reference on Pre-application stage	EAO
Application stage Open Houses	EAO & CEA Agency
Public comments on Scoping Document	RAs
Comments on CSR	RAs & CEA Agency
First Nations Consultations	Government
First Nations Consultations	Proponent
Provision of Participant Funding	CEA Agency
Meeting with Interested Parties ordered by EAO	Project Proponent

The sections that follow present these issues from the view points of intervenors, the number of issues raised, and how they were addressed by proponents and RAs (see Tables 1-4 in Appendices A-D).

4.3.2 Intervenor Concerns and Proponent and RAs Responses

During the proponent's public consultation activities, many of the intervenors generally expressed their support for the project.[260] First Nations expressed concerns about the project effects on social lives of young people in the community but they were generally satisfied with the proponent's commitments and mitigation measures in response to their concerns. They were also satisfied with the potential economic benefits of the project to their communities. A number of ENGOs expressed concerns about specific aspects of the project but generally did not oppose it. Most government departments focused on providing technical advice on areas within their mandate. Government agencies raised concerns within their respective areas but were generally satisfied with the proponent's responses. On the other hand, the proponent made 193 project-specific commitments to implement throughout the various phases of the project in response to public concerns.[261] Broadly, these commitments addressed most of the concerns raised by intervenors during the open houses and comments period, and during the pre-application, scoping and comprehensive study report preparation period.

Generally, environmental, cultural heritage and economic issues constitute the main concerns related to this project raised by participants. The major environmental issues that concerned them centered on adverse impacts of the mine on acid rock

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[260] See NovaGold Canada Inc. Proposed Galore Creek Copper-Gold-Silver Mine Summary of Public Consultation Activities (B.C, 2006) online NovaGold Inc< www.novagold.net>.

[261] See NovaGold Canada Inc. Galore Creek Copper-Gold Silver Project Environmental Assessment Certificate #MO6-03 (B.C, 2006). online BC< http://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_project_index_report.html>.

drainage, fish and fish habitat, air quality, terrestrial ecosystems including wetlands, navigable waters protection, among others. Economic concerns centered on jobs prospects to them as individuals and to their communities if the project is developed. For example, in table 1, of the 16 issues raised by First Nations, 12 border on adverse effects of the project on the environment. Out of the 16 issues, 12 were fully addressed by the proponent, 2 were partially addressed and 2 issues could be said to not have been addressed in any meaningful way. ENGOs raised three major environmental issues and all three were partially addressed by the proponent.

On the intervenor comments tracking tables, government agencies raised 21 issues.[262] However, based on the criterion, 5 environmental related issues were identified. Government agencies expressed satisfaction with the proponent's responses. Of all the 18 issues raised by the public, of which 5 were selected for discussion, three centered on the downstream effect of the project,[263] and the other two were socio-cultural and economic issues. In this regard, the next section discusses intervenors comments in detail to indicate the level of voluntary receptiveness of intervenor comments by the proponent. The comments and responses discussed, in the comments tracking table, relate thematically to environmental, socio-economic and cultural heritage issues (see Table 1 Appendix A).

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[262] Galore Creek Comprehensive Study Report 2006, Comment Tracking Table Appendix E at 1.

[263] See Table 1 in Appendix A for details on intervenor concerns raised and responses from both the proponent and RAs.

4.3.3 Environmental Issues

4.3.3.1 Downstream Effects

i. Water quality, fish and fish habitat

The public comments tracking table (Table 1 see Appendix A), representing public comments made during the Galore Creek EA process, displays the concerns expressed by almost all the participants about adverse impacts of the mine downstream. The concerns center on the effects of the project and their potential impact on commercial fisheries, water quality and on vulnerable terrestrial wildlife and their supporting ecosystems.[264]

As a matter of condition, the RAs indicated that waters would only be discharged into Galore Creek if they met both the federal Metal Mining Effluent Regulations and the provincial permitted levels. The proponent commitments were also detailed, and the RAs agreed that they could adequately address water quality concerns. Specific commitments and mitigation measures put in place by the proponent include to:

- conduct further water quality modelling during operations to characterize pit and impoundment water quality after closure;
- monitor water levels in Porcupine River and design a flood protection barrier adjacent to the Porcupine aerodrome;
- undertake a flood risk assessment during the final design for the Porcupine aerodrome which will include consideration of potential impacts of climate change;

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[264] NovaGold Canada Inc. Proposed Galore Creek Copper-Gold-Silver Mine Summary of Public Consultation Activities Tracking Table Appendix B (B.C, 2006) p. 37 online NovaGold Inc< www.novagold.net>.

- monitor pertinent glaciers to predict effects on mine safety and water management;
- conduct revised local-scale numerical modelling to predict seepage from the Galore Creek impoundment;
- plug wells and drains at mine closure; and
- monitor water quality after closure until regulatory agencies determine that conditions are stable and predictable.[265]

Despite these commitments, and given the magnitude of the likely adverse environmental effects, some participants remained sceptical about the proponent's mitigation measures but many thought they were reasonable.

Reduction in the value of commercial fisheries became a major concern for First Nations and the public because fishing is a major economic activity for First Nations in the project area. On this issue, the proponent committed to:

- Maintain an intensive receiving environment, and aquatic, fisheries and wildlife monitoring programs throughout the life of the mine and in cooperation with university researchers, Canadian and U.S. federal, B.C. and Alaska State government agencies and the Tahltan Central Council, to ensure that water quality, aquatic, fisheries and wildlife resources are not impacted by the Project and are protected for future generations;
- establish criteria, in conjunction with appropriate Canadian and U.S. federal, B.C. and Alaska State government agencies and the Tahltan Central Council, for assessing potential significant biological effects to the receiving environment identified by the monitoring programs; and
- work with the Fisheries and Oceans Canada, Transport Canada and Tahltan Central Council, to ensure the design of the diffuser minimizes potential impacts on fisheries resources and waterborne traffic.

In view of the concerns, however, DFO required the proponent to prepare comprehensive fish and fish habitat compensation plans in cooperation with the Ministry

[265] Ibid.

of Environment, Fisheries and Oceans Canada and the Tahltan Central Council. This is to fulfill the RA's authorisation requirements under section 35(2) of the Fisheries Act. Also, as part of the Aquatic Effects Monitoring Plan created pursuant to the federal Metal Mining Effluent Regulation and the Environmental Management Act,[266] the proponent would monitor fish health and tissue quality, including, but not limited to analysis of the full suite of 30 metals used in the baseline studies.

Though these conditions are laudable, they all relate to regulatory requirements which, perhaps, the proponent would have to comply with in any case. This raises the question whether the RAs are actually adding anything to the concerns raised by intervenors. It must be noted that, the concerns raised under this issue go beyond the destruction of fish, to include broad water quality issues as well.

ii. Wildlife and Wildlife Habitat

It was identified during the pre-application and the application stages by the public, government agencies, ENGOs and First Nations that the project would have adverse effects on wildlife and wildlife habitat. In response to the comments from the intervenors, the proponent met with the Ministry of Environment intervenor groups to discuss issues related to the Wildlife Mitigation and Monitoring Plan, concerns about the quality of the predictive ecosystem mapping, new criteria for the goat and grizzly bear habitat modeling, wildlife compensation proposals, and additional wildlife survey requirements.

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[266] Environmental Management Act and Ibid.

After the meeting, the proponent committed to undertake the following measures to mitigate the potential effects on wildlife and wildlife habitat:

- develop and implement a Wildlife Mitigation and Monitoring Plan;
- where reasonably possible, avoid some construction activities during sensitive periods for wildlife and, where avoidance is not reasonably possible, minimise adverse impacts of these activities;
- make a draft monitoring plan for the transmission line available for Canadian Wildlife Service's timely review;
- contact Environment Canada if there is a requirement to scare SARA-listed species from the aerodrome;
- contact Canadian Wildlife Service if there is a requirement to move bird nests in relation to the project.
- commit to a wildlife and wildlife habitat monitoring and follow-up program

On this particular issue, the RAs imposed no specific conditions, but the proponent made the commitments after discussing the issues with government and intervenors. Intervenors, especially ENGOs thought the proponent's commitments were reasonable but remained fairly sceptical about the proponent's readiness to comply with its own commitments.[267]

iii. Air quality

In the area of air quality, government agencies were concerned that emissions from smoke during open burning of vegetation from land clearing was not identified and addressed. It was noted by government that given the size of the Project and the pristine

[267] Response to Public Comments on Comprehensive Study Report Proposed Galore Creek Copper-Gold-Silver Mine, (British Columbia, 2007) BC onlinehttp://a100.gov.bc.ca/appsdata/epic/html/deploy/epic_project_home_239.html.

nature of the environment, it is necessary to have a minimum 3-5 years of non-continuous air quality monitoring once the mine begins operation.

In light of these concerns, the proponent committed to mitigate adverse effects on air quality through the following means:

- implement an Air Emissions and Fugitive Dust Management Plan;
- use appropriate emissions control equipment such as scrubbers;
- use high-efficiency technologies for diesel mining equipment
- make reasonable efforts to use post-2005 diesel equipment to minimize air emissions;
- use the lowest sulphur-content fuel reasonably available on the market;
- implement a recycling program to reduce the amount of incinerated wastes and hence CO2 emissions;
- monitor workplace contaminants to ensure compliance with occupational health exposure limits pursuant to permitting requirements;
- abide by the Open Burning Smoke Control Regulation during construction;
- use a dust suppression system for the primary crusher to reduce fugitive dust and keep ore drop height to a minimum

Based on these commitments, government agencies were satisfied that the proponent's mitigation measures would prevent air contamination and emissions likely to be caused by the project.

From the discussion on the environmental concerns raised by intervenors, the proponent was responsive to their comments through its broader commitments and mitigation measures. However, the RAs were not responding to the broader concerns raised by intervenors but focus on their approval requirements. For example, some participants expressed disquiet that the proponent's commitments were inadequate to address specific problems related to accidents and ecosystems preservation. However, the RAs referred the participant to the commitments made by the proponent as adequate to

address the problem. The trend that emerged is that the RAs rely on the commitments and mitigation measures proposed by the proponent to address intervenor concerns.[268]

Another aspect of the project that concerned the public had to do with its socio-economic impacts on local communities, individuals and organisations. The next section analyses intervenor comments and responses from proponent and the RAs on these matters.

4.3.4 Socio-economic Issues

Most of the concerns regarding socio-economic impacts of the project can be subdivided into two: those that center on the ability of the project to create economic opportunities, such as jobs, and secondly, the potential of the project to impact negatively on the socio-economic activities and lives of the people (see table 1). While the public and First Nations were concerned about the project's adverse effects on the environment, they also anticipated its economic benefits to their communities.

In clear demonstration of this, questions raised during open houses in the BC communities revolved around employment opportunities, training, shift rotations and employee pick-up locations.[269] To these concerns, the proponent committed to:[270]

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[268] Galore Creek Comprehensive Study Report at Appendix F Summary of Proponent's Commitments 2007.

[269] See NovaGold Canada Inc. Proposed Galore Creek Copper-Gold-Silver Mine Summary of Public Consultation Activities (B.C, 2006) online NovaGold Inc< www.novagold.net>.

[270] Commitments 13-16 Supra note 50 and 51.

- give hiring priority to Tahltan Nation people, residents of northwestern British Columbia residing in the project community, and then to other Canadians;
- develop a long-term recruitment, employment and training strategy, whose success depends on the cooperation and commitment of the Tahltan Central Council, local communities and provincial and federal governments;
- implement a hiring strategy that would include a workforce education and skills assessment, capacity survey of primary communities, mine employment orientation program, open pit mine heavy equipment training program, specific on-the-job training programs and apprenticeship programs;
- ensure that all employees receive site-specific safety and environmental awareness training.

In addition to the above, the proponent committed to help create business opportunities for First Nations and others. The proponent will:[271]

- develop a long-term business opportunities strategy involving structuring contacts so they can be accessed by a variety of different sized local businesses.
- implement a business strategy that will require contractors to disclose their policies and practices for providing opportunities to the members of the Tahltan Nation and residents of northwestern British Columbia.

From the economic perspective, the negotiated agreement signed with the proponent and the Tahltan Nation was instrumental in defining and scoping out how the project would be beneficial to the First Nations people. Based on the final comments submitted,[272] the group indicated that the negotiated agreement supports the Tahltan's principles of environmental stewardship and economic sustainability.

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[271] Commitment 17 and 18 Supra note 50 and 51.

[272] Reponse to Public Comments on Comprehensive Study Report, Galore Creek Copper-Gold-Silver, British Columbia, 2007.

What emerged from the discussion of environmental and economic issues in this project is that the proponent is slightly more responsive to the economic concerns raised by intervenors than the environmental concerns. Intervenors also seemed less agitated by the responses provided by the proponent to the economic concerns they raised base on an assessment of their responses to it, whereas they expressed a number of reservations with the proponent's commitments and mitigation measures to the environmental issues. This presents a number of scenarios.

From the business point of view, the proponent, perhaps, finds it more expensive to address issues bordering on the environment. On the other hand, it is much easier for the proponent to show the economic benefits of the project, such as jobs and business opportunities that the communities stand to gain from if the project is approved. For example, it would be more expensive and time consuming for the proponent to address the issue of waste disposal than just saying that this project has already employed a number of people from this community. It can therefore, be concluded that the proponent's responses to intervenor concerns are based on economic calculations. The RAs not being assertive in impressing upon the proponent to fully address intervenors environmental concerns could also be based on economic considerations. For instance, the development of the project means more taxes to government and jobs for the people, and these could boost the political fortunes of government decision makers. If these assertions are valid, and considering the fact that it is the RAs who control and conduct the EA process in CS, it raises concerns regarding whether the final decision taken (by the RAs) in this project would be devoid of these competing interests and their influence.

4.3.5 Socio-cultural Issues

First Nations argued that the project would contribute to a variety of adverse social and cultural impacts on the traditional structures and communities of the Tahltan.[273] They were concerned that the project would cause an:

> increased level of domestic violence; increased gambling and substance (alcohol and drugs) abuse; increased property crimes; marginalization of the elders; changes in social status and structures within families and communities; loss of support systems through loss of Tahltan members to employment at the mine; reduced interest and engagement in traditional activities, and resulting loss in ability to pass on this knowledge; increased inter-generational dissociation; more single-family homes; loss of adult male role models in families; increased family stress as a result of two week rotation fly-in-fly-out schedule at the mine.

Nevertheless, the Crown's consultation on socio-cultural issues was not up to Tahltan standards. This was due to the Crown's over-reliance on the proponent's Participation Agreement (PA),[274] signed with the Tahltan Nation. In particular, the Tahltan expressed their frustrations over the Province's reliance on the proponent to fulfill its' legal requirements, while First Nations lacked any decision-making authority over the process.

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[273] Galore Creek Comprehensive Study Report 2006, Appendix E - First Nations Comment Tracking Table at 41.

[274] The Galore Creek PA was established between the TCC, on behalf of the Tahltan Nation, and NovaGold - effective as of January 2006. The PA sets out each party's rights and interests by recognizing the Tahltan's inherent Aboriginal title, rights and interests within the project area, and NovaGold's rights and interests to explore and develop mineral resources. See Courtney Riley Fidler. Aboriginal Participation in Mineral Development: Environmental Assessment and Impact and Benefit Agreements (MSC Thesis, University of British Colombia 2008), unpublished at 45.

It is observed that the PA could facilitate the EA process, but it is clear, it cannot be a substitute for consultation.[275] For example, the Tahltan concern was expressed over the explicit absence of socio-cultural issues in the EA, and government's ability to skirt around social issues. This reinforces the imperative for a PA to pick up on the areas government does not have the capacity to, or is unwilling to address.

However, the Provincial and Federal governments sometimes blurred the boundaries by using the agreement as a principle of acquiescence.[276] This was the case in Galore Creek: the Tahltan Nation expressed the concern that the government, somehow, viewed the agreement as a component of consultation, even though the duty to consult is judicially confined to the government.[277]

The RAs conceded that some of the issues raised about the adverse socio-cultural effects that could be caused by the project are beyond prediction. This is why the Participation Agreement with the First Nations ensures on-going monitoring and assessment of social, cultural and heritage and environmental issues. To this end, mechanisms, such as the Human Resources Committee, workplace commitments, Tahltan Heritage Trust, and a scholarship fund were agreed with the Tahltan. The proponent is further committed to honour the conditions of the PA that provide avenues to mitigate

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[275] Fidler, C., Aboriginal Participation in Mineral Development: Environmental Assessment and Impact and Benefit Agreements (M.A.Sc. Thesis, the University of British Columbia, 2008) unpublished.

[276] Fidler, C. & Hitch, M., "Impact and Benefit Agreements: A Contentious Issue for Aboriginal and Environmental Justice" (2007) 35 Environments Journal 49.

[277] See the Supreme Court of Canada decision in Haida Nation v. British Columbia where the court stated that the Crown has the duty to consult and accommodate aboriginal in the EA process.

social and cultural impacts of the Project on the Tahltan people.[278] The proponent proposed to address some of the above concerns by continuing to work with the Tahltan Central Council on the development of Traditional Knowledge studies and the continued application of Traditional Knowledge to the project.[279]

Though the proponent's commitments on this issue seemed to be elaborate, this paternalistic approach where decision making is solely in the hands of industry, with little consultation with the Tahltan Nation, can lead to failure of proponent's initiatives. This has been found to be true in other projects where employment quotas were not achieved, the training programs were unsuccessful as students left school to work at the mine, and not one individual completed the apprenticeship program.[280] Nonetheless, it is the hope that the commitments would address First Nations concerns. But it remains to be seen whether the intentions and aspirations of First Nations regarding Galore Creek would be achieved through this PA. From the foregoing, it is easy to conclude that socio-cultural issues were not completely addressed in this project.

4.3.7 RAs Authorisation and Conditions

As a requirement under CEAA, the RAs in this project were DFO, TC and NRCan who needed to make authorisations under their respective triggers.[281] Environment

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[278] Ibid.

[279] See commitments 49-51 Supra note 50 and 51.

[280] Doelle. M., "Regulating the Environment by Mediation and Contract Negotiation: A Case study of the Dona Lake Agreement" (1992) 2 Journal of Environmental Law and Practice189.

[281] See CEAA section 5(1).

Canada, Health Canada, and the CEA Agency participated as Federal Authorities (FAs), to offer expert advice. DFO determined authorizations pursuant to subsection 35(2) of the Fisheries Act as to harmful alteration, disruption or destruction of fish habitat resulting from stream crossings and the infilling of water bodies associated with: the access road from Highway 37 into the Galore Creek valley; the ore concentrate pipeline and the diesel fuel pipeline to be built to follow the road corridor from the plant site in the Galore Creek valley to Highway 37; the 1525-metre airstrip along the south side of the Porcupine River, the construction of a bridge across the Porcupine River; and a licence under subsection 10(1) of the International River Improvements Regulations[282] for a river improvement that will alter the natural flow of an international river.

NRCan participated as an RA to issue a permit or license for an explosives factory and magazine under paragraph 7(1)(a) of the Explosives Act. Also, whereas approval(s) were required pursuant to subsection 5(1) of the Navigable Waters Protection Act for the construction of bridges or other structures over navigable waterway(s) associated with: the access road from Highway 37 into the Galore Creek valley, the construction of a bridge across the Porcupine River, containment dams required for the construction of the Tailings Impoundment Area, and some of the pipeline crossings.

As part of its authorisation requirements, DFO mandated the proponent to prepare a Fish and Fish Habitat Mitigation and Compensation Plan to address the adverse effects the project would have on fish and fish habitat. The compensation plan was also to meet

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[282] International River Improvements Act RSC, 1985, c I-20.

DFO's policy of no-net-loss of fish and fish habitat. In response to this requirement, the proponent developed comprehensive fish and fish habitat compensation plans in cooperation with the Ministry of Environment, Fisheries and Oceans Canada and the Tahltan Central Council. Due to data limitation, I could not determine the specific conditions imposed on the proponent by the other two RAs.

What is certain is that the project was approved by all three RAs. Indeed, in July 2007, the RAs determined that after taking into consideration the comprehensive study report and the projected implementation of appropriate mitigation measures, the authorities were of the opinion that the project would likely not cause significant adverse environmental effects.[283]

The discussion above has considered the concerns raised by intervenors in the Galore Creek project and how they were responded to by the RAs and the proponent. RAs' legal requirements in approving or authorising certain aspects of the EA have also been discussed. What has emerged from the discussion is that the public raised wide ranging issues from environmental to socio-economic and most of these issues were addressed by the proponent through its commitments. It is also clear that apart from the legal requirements of the RAs, they were not imposing new conditions on the proponent. In this regard, the next section discussions the project in light of changes implemented by the proponent due to comments from intervenors.

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[283] Canadian Environmental Assessment Agency, Decision, Galore Creek Gold-Silver-Copper Mine Project CEA Agency online < http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=39778>.

4.3.8 Changes to the Project

As evident from the foregoing, there were very few changes to project design. Only two changes were made to project design, but the proponent offered 193 commitments and mitigation measures. The two changes to project design were the proponent's decision to abandon the original southern route to adopt the northern route to avoid passing through a critical salmon and wildlife habitat, as identified by First Nations. It would also prevent traffic that would affect individual residents and businesses.

Also, the Tahltan elders raised concerns over toxic impacts on wildlife if ore concentrate were to spill into the environment. In response, the Proponent incorporated pipelines to pump the concentrate from the process plant to Highway 37 and to supply diesel to the site in order to reduce the number of trucks on the access corridor.[284]

The decision by the proponent to incorporate these concerns is a clear indication that participants had an impact on the project design. This is because the change was voluntarily taken up by the proponent. It appears it values its relationship with the community, since the change was not a condition imposed by government decision makers. This also highlights the importance of contact with the public at the initial stages of a project before irrevocable decisions are taken with their attended consequences.

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[284] Response to Public Comments on Comprehensive Study Report, Proposed Galore Creek Copper-Gold-Silver Mine, (British Columbia, 2007) at 201.

Clearly, the proponent made several commitments which formed part of the requirements that it had satisfy before an environmental assessment certificate was granted to it. The common feature of these commitments is that they are broad and, thus, appear as though they were made to anticipate every possible situation or issue. It also appears that the proponent made these broad commitments to cover every situation to avoid RAs imposing much stiffer conditions on it. This is grounded in the fact that RAs, in most cases did not impose conditions apart from their regulatory requirements.

Under CEAA,[285] RAs must consider the need for, and requirements of a monitoring and follow-up program for the project. A monitoring and follow-up program in this project is crucial because as indicated earlier, 97 percent of mitigation measures are based on commitments and promises and the most effective way the RAs can ensure compliance is through this program. In this regard, the three RAs, Environment Canada, Health Canada, and the CEA Agency had an agreement with the proponent on how this program could be administered. In an effort to ensure compliance and to create some legal obligation between RAs and the proponent, the monitoring and follow-up reports will be published in the CEA Registry annually. However, most of the actual implementation of the follow-up program depends on the proponent and the province. This raises concerns of the RAs effective involvement in ensuring that these commitments are implemented in an effective way. This is troubling because monitoring does not involve public participation and therefore raised concerns as to how this could

[285] CEAA section 16(2).

be done effectively by the province and the proponent who are interested in the approval of the project.

4.3.9 Concluding Observations: Galore Creek Project

In this project, the proponent was generally responsive to intervenor comments. For example, 28 issues were raised by participants, and based on the analysis 17 of them were fully addressed, 9 were partially addressed, and in regard to 2, it could not be determined how effectively they were addressed. Issues raised by ENGOs were not fully addressed. For example, 3 of the issues raised were partially addressed by the proponent and all of these issues centered on the project effect on the environment. It appears the proponent was more responsive to First Nations concerns than other intervenors in this project. For instance, out of the 16 issues raised, 12 were fully addressed, and 4 were either partially addressed or indeterminate in this regard.

The study also found that the three RAs involved in the project did not impose new conditions apart from their legal approval requirements. The reason for this is that the RAs perhaps, pushed the proponent to make these commitments and therefore, are satisfied with them. This explains why RAs were more likely to agree with proponent proposed measures than intervenors concerns. Overall, the findings indicate that proponent was more responsive to intervenor comments in the Galore Creek project than the RAs.

4.4 Case Study Two: Project Description Mount Milligan Copper-Gold Mine Project

The Mt Milligan Mine project involves a proposal by Terrane Metals Corporation (the Proponent) to construct and operate a conventional truck-shovel open pit gold-copper mine. It is located approximately 155 km north of Prince George, British Columbia, between the communities of Mackenzie and Fort St. James. It is expected to extract and process, on average, 60,000 tonnes of ore per day (21.9 million tonnes per year) over a 15 year mine life. The total disturbance area of the proposed mine and associated infrastructure, including off-site facilities, will be approximately 1,820 hectares (a reduction of 29% from the previously permitted 1993 plan).

The proposed Mt Milligan Gold-Copper Mine components include: open mine pits, a tailings impoundment area, stream diversions, a water supply pond, an upgraded access road, a concentrate mill, a 92 km long 230 kV power line, borrow pits, overburden and topsoil stockpiles, associated site drainage and water management structures, worker facilities, an explosives factory and magazine facilities, fuel storage, maintenance and warehousing facilities. The proposed mine site is located within the area covered by the Province of British Columbia's Mackenzie Land and Resource Management Plan and Philip Enhanced Resource Management Zone. This zone has a management objective of promoting the development of high mineral values and recognizing the significance of the mineral potential of the region.

The capital cost of the project is estimated at $917 million and the 30-month construction phase will provide an average of 370 jobs. Of the estimated $156 million

annual operating cost, almost $100 million will be spent in the regional economy and the project is expected to generate approximately 400 full-time jobs annually over the 15-year lifespan of the mine. Once the project is in operation, annual revenue to local governments is estimated at $1.3 million, and total provincial revenue over the proposed project life is estimated at $200 million. With the project as proposed described above, the next section examines the federal EA process within which the EA of the Mt Milligan project was conducted.

4.4.1 Federal EA Process

The federal EA process in Mt Milligan is very similar to that of Galore Creek because they were both conducted under the same legislation and institutional framework. However, in contrast to the Galore Creek project where there were three RAs, in the Mt Milligan Gold-Copper Mine, only the Department of Fisheries and Oceans (DFO) and Natural Resources Canada (NRCan), which identified themselves as responsible authorities, determined that an environmental assessment was required.[286]

EA regulations normally provide guidance through opportunities for the public to participate in the process.[287] In consonance with this principle, and similar to the Galore

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[286] Specifically, DFO may issue an Authorization pursuant to subsection 35(2) of the Fisheries Act for the harmful alteration, disruption or destruction of fish habitat. Further, regulations to be made by the Governor in Council are contemplated to list the headwaters of King Richard Creek and Alpine Creek as a Tailings Impoundment Area on Schedule 2 of the Metal Mining Effluent Regulations.[286] NRCan may issue a licence pursuant to Section 7(1) (a) of the Explosives Act.

[287] Judith Petts, "Public participation and EIA", in Judith Petts (ed), Handbook of Environmental Assessment, Vol 1 (Blackwell Science, Oxford, 199) p. 145–177.

Creek case, Mt Milligan's proponent public engagement program also offered various opportunities for public involvement in the review of the project and its environmental assessment.[288] These opportunities included several open house forums and comment periods that were designed to educate the general public on the project, exchange information with project representatives, express any environmental or social concerns, and allow for input into the EA process. The proponent held two rounds of public open houses. In the first round, five open house forums (compared to eight in Galore Creek) were held in March 2007 at various locations in local communities, including McLeod Lake, Fort St. James, Mackenzie, and Prince George. A second round of public open houses was held in July 2007. Notices of the open houses were communicated through advertisements in local newspapers, flyer postings, and in a news release given to local media.

The proponent also maintained a project website that was updated regularly with information about the proposed project. A three-dimensional computer simulated video of the proposed project that illustrated what the mine site would look like throughout the life of the project was shown at the second round of open houses and made available on the website. The proponent also consulted with, and gave presentations to local government officials, regional community representatives and economic development organizations on a number of occasions. A Community Sustainability Committee was established by the proponent in May 2008, and representatives were invited from First

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[288] See Public Notice, Canadian Environmental Assessment Act, and Comprehensive Study Assessment of the Proposed Mount Milligan Gold-Copper Mine online CEAA <http://www.ceaa.gc.ca/050/documents/35085/35085E.pdf>.

Nations, local governments and local colleges in Fort St. James and Mackenzie. Table 2 below represents a summary of public participation activities in the Mt Milligan CS project.

Public Participation Activities Mt Milligan Comprehensive Study Project 2009

Activity	Organisation
Requirements for Public Comments Period	EAO
Setting up of Technical Working Group for PP	EAO
Distribution of information for public participation (PP) in Comprehensive Study	BC Environmental Assessment Office EAO, CEA Agency &Federal RAs
Open Houses and Oral Hearings Pre-application stage	Project Proponent
Application stage Open Houses	EAO & CEA Agency
Public Comments on CSR	RAs & CEA Agency
First Nations Consultations	Government
First Nations Consultations	Proponent
Provision of Participant Funding	CEA Agency
Meeting with Interested Parties ordered by EAO	Project Proponent
Setting up of Community Sustainability Group for PP purposes	Project Proponent

4.4.2 Intervenor concerns and Proponent and RA Responses

There was general public support for the Mt Milligan project.[289] For example, on the Mt Milligan project public consultation report, 53 comments were received.[290] Out of this number, 38 letters were in support of the project and the 14 were general concerns on specific aspects of the project but were not opposed to the project. However, MiningWatch, an ENGO was generally opposed to the project. A number of First Nation groups expressed opposition to the project, particularly, Nak'azdli, Takla Lake, and West Moberly First Nations. Their concerns centered on inadequate Crown Consultation.

Similar to the Galore Creek project, the provincial EA certificate contains 97 project-specific commitments made by the proponent to implement throughout its various stages.[291] These commitments addressed both provincial and federal legal requirements, issues identified by government agencies, First Nations and the public. The commitments provide intervenors with some measure of proponent's preparedness to deal with concerns regarding adverse effects of the project, and benefits to the environment and community life. The comments and responses discussed in this project also relate broadly to environmental, socio-economic and socio-cultural concerns raised by intervenors.

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[289] Mount Milligan Gold-Copper Mine Project, Mount Milligan Public Consultation Report 2009, this was during the application review process.

[290] Ibid

[291] Mount Milligan Gold-Copper Comprehensive Study Report 2009, Amalgamated Table of Proponents Commitments, Mitigation Measures and Best Management Practice at Appendix C at 168

In this project, there were a total of 28 environmental and socio-economic issues raised (see Table 2, Appendix B). Out of this, First Nations raised 13 issues, 8 were fully addressed by the proponent, 3 were partially addressed by the RAs and the proponent, 1 could not be determined and 1 was not addressed. Most of the issues raised by First Nations bordered on the effects of the project on the physical environment but they were also concern about economic benefits. The ENGO that participated in all stages of the project assessment was MiningWatch. MiningWatch focused its concerns on 3 issues: the proposed use of important fish habitat for the tailings impoundment, wildlife and wildlife habitat, and the unresolved concerns[292] and disagreement about the project from the most affected First Nation, the Nak'azdli Nation (see Table 2 Appendix B). MiningWatch was not satisfied with the responses from the RAs to these concerns.

There were five government agencies that raised broader environmental concerns. In general, the Federal government agencies raised 14 issues. However, based on the criteria set for selecting the issues, 6 were sampled. Government agencies were satisfied with all the responses to their concerns provided by the proponent. As seen in table 2, the public raised 6 issues, 3 were fully addressed, and it could not be determined how well the other 3 were addressed by the proponent and the RAs. Out of the 6 issues raised, 3 were environmental and the other 3 spread across socio-economic and cultural concerns. Most of the concerns raised by the public relate to project effects on wildlife and poisonous chemicals that would be released into various creeks. From the results, it is

[292] The report does not say what these unresolved issues complained of by the First Nations were.

clear that most of the concerns in this project center on the likely adverse effects of the project on the environment.

4.4.2.1 Environmental Issues

The major environmental issues in this project revolved around the disposal of tailings and the effects of the project on the various creeks in the area. There were also concerns about the project's impact on fisheries and aquatic ecosystems, vegetation and plant community, wildlife and wildlife habitat, contamination from acid rock drainage, air quality and climate change, among others.

i. Waste Disposal: Tailings and Mercury

Disposal of tailings and mercury was a subject of concern for First Nations, and ENGOs such as MiningWatch during the comment period on the CSR in 2009.[293] MiningWatch argued that while these issues may be examined during review of the application, based on their experience, consultations planned by DFO on issues affecting water bodies have not been effective at addressing them.

The RAs responded that in the Environmental Impact Statement (EIS), concentrations of mercury in fish collected within Meadows Creek and in nearby streams, rivers and lakes were shown to be low and comparable to concentrations found in similar species in other uncontaminated water bodies in British Columbia. Mercury was also

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[293] See Canadian Environmental Assessment Agency, Document List, Mount Milligan Copper-Gold Mine Project online CEAA< http://www.ceaa.gc.ca/050/documents/35085/35085E.pdf>.

assessed as part of the environmental health risk assessment described in the EIS. The maximum predicted concentration of mercury in air and soil was less than the risk-based guidelines set by regulatory agencies. Since these criteria are conservative, results provide confidence that there will no be unacceptable risks to human or environmental health.[294] Despite these conclusions by the RAs, it was found that the CSR assessed only the potential of mercury methylation from the flooding of the water supply pond, and no consideration was given to the potential releases of mercury from the tailings impoundment area or the pit after closure.[295] This was a major oversight of the CSR and a failure of responsibility by the RAs.

It is quite clear that this issue was not comprehensively addressed. Clearly, the RAs did not address the inconsistencies in the CSR and EIS pointed out by intervenors regarding it. The RAs' responses on these particular issues did not impose any commitments or conditions on the proponent, but referred to the proponent commitments which in the RAs' opinion satisfactorily addressed the issue.

ii. Surface and Ground Water

In terms of surface and ground water, First Nations and the public were concerned that there are several fish-bearing creeks in the area, and so the project would certainly cause significant adverse effects on water bodies, which would impact negatively on fish.

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[294] See Responsible Authority Response to Public Comments on Comprehensive Study Report for the Proposed Mount Milligan Gold-Copper Mine (October 2, 2009 to October 31, 2009) online http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=39778>.

[295] Ibid

They therefore, urged the proponent to develop mitigation measures to deal with potential contamination of groundwater from uncontrolled seepage from the impoundment. In response to these concerns, the proponent offered to:

- finalize and implement a construction water management plan that minimizes the potential for the release of contaminated water to the environment. If required by the Ministry of Environment (MOE) (and in consultation with DFO), would install a flocculent addition system for construction of the Meadows Creek Water Supply Pond as a contingency to remove suspended solids from the water;
- operate systems, implement staged tailings impoundment area (TIA) dam construction, and monitor water management to ensure that there is no discharge of surface contact water from the mine site to receiving streams during operations; and
- install additional groundwater wells to enhance the ability to monitor seepage and implement the monitoring program.

The proponent further indicated that numerous design features, coupled with the commitments, addressed all the concerns regarding water quality identified by the technical working group, First Nations, and the public. As a result, no residual adverse effects are anticipated in light of these measures by the proponent.

iii. Air Quality and Climate Change

At the center of this issue were government agencies, First Nations, and the public who expressed concern that emissions from the proposed Project can adversely impact the quality of existing relatively good air, and also cause green house emissions within the area. Intervenors subsequently demanded that if the project is to proceed, more needs to be done to minimise the potential for adverse effects on air quality and climate change. To deal with this, the proponent proposed the following measures:

- Standard Operating Procedures (SOPs) to be developed prior to mine operations, including measures to minimize engine idling;
- maintenance requirements for haul roads would be further assessed as part of detailed design;
- use vapour recovery units at fuel and chemical storage tanks;
- conserve energy by reducing unnecessary lighting, heating, and air conditioning and ensuring proper building and facility insulation;
- use grid electricity for plant and some mining equipment operations;
- utilize covers or control devices for crushing and milling to avoid the generation of dust such as enclosed low speed conveyor belts, dust containment at conveyor transfer points (curtains and rubber seals), and stockpiling concentrate within an enclosed storage building; and
- use dust suppression measures including dust collection systems for bulk materials handling.[296]

It must be pointed out that on the single issue of climate change, the proponent's mitigation measures do not refer to any set standard by either Environment Canada or any international regulatory framework. It is therefore unclear how these measures would prevent GHG emissions since there are no set targets which can be verified.

iv. Wildlife and Wildlife Habitat

There were numerous concerns raised by First Nations, MiningWatch, and the public on the adverse effects of the project on wildlife and wildlife habitat.[297]

To address them, the proponent offered a Wildlife Management Plan incorporating a wide variety of measures, including those relating to specific species with the aim to minimize or avoid potential effects related to:

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[296] Supra note 56.
[297] Comprehensive study Report 2009 supra not 1.

- Habitat degradation from dust, traffic emissions, equipment operations, hazardous materials spills and fires;
- interference with wildlife travel corridors, feeding sites, and nesting sites;
- displacement of wildlife;
- wildlife mortality;
- implement no hunting policy for all workers; and
- reclaim wildlife habitat at closure.[298]

These commitments (as acknowledged by the RAs in the CSR), also addressed the RAs' requirements for the proponent under the Species at Risk Act.

However, some intervenors thought that the proponent's assessment of the project's impact on wildlife is inappropriate and based on assumption.[299] This means that some of the mitigative measures proposed may not have been properly directed at the problem. The RAs, in their response, indicated that the proponent properly assessed the effects of the project on wildlife and wildlife habitat, and that mitigative measures would prevent adverse effects. They contended that in their view, no residual significant adverse effects are anticipated in light of the mitigation measures.

The major environmental concerns in this project were the downstream effect on water bodies which has the potential to destroy fish habitat. The proponent committed to mitigate the project effect on water bodies, and has also proposed a fish habitat compensation plan to this effect. There was no general opposition to the proponent's mitigation measures by inteevenors. However, MiningWatch was not entirely confident

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[298] Supra note 56.

[299] Responsible Authority Response to Public Comments on Comprehensive Study Report for the Proposed Mount Milligan Gold-Copper Mine (October 2, 2009 to October 31, 2009) online at http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=39778.

that these measures would adequately address their concerns considering the magnitude of the likely adverse effects the project would caused to the environment.

Social and economic impacts of a project could be key determinant in project approval or disapproval. Nevertheless, the tendency for EA to focus on the biophysical environment to the neglect of socio-economic concerns is high. In this regard, the public and First Nations were concerned with the socio-economic impacts on local communities, individuals and organisations.

4.4.3 Socio-economic Issues

i. Economic Issues

Most of the concerns regarding socio-economic impacts of the project centered on the ability of the project to create economic opportunities, such as jobs.[300] There were large numbers of intervenors who came to the opening houses with their resumes.[301] In an attempt to address this problem, the proponent made specific commitments. In general, the proponent promised to:

- maximise employee recruitment from Northern B.C., particularly from the communities within the regional study area; and
- work closely with the employment and training officers in First Nations communities and band Councils to establish conditions at the operation that support a multi-cultural work force and encourage their participation in the labour pool.[302]

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[300] Mount Milligan Gold-Copper Mine Project, Mount Milligan Public Consultation Report 2009, this was during the application review process.

[301] Ibid.

[302] Supra note 83 schedule B proponent commitments.

In addition to the employment related commitments, the proponent would also provide training and development and create business opportunities by doing the following:

- develop collaborative training programme in employment readiness with government and community groups, for members of local communities;
- continue to work with the college of New Caledonia to complete a skills and training gap analysis for Fort St. James and Mackenzie;
- establish a collaborative site-wide training programme with contractors to focus on equitable training standards so that workers from different contractors are able to work safely together;
- implement a collaborative project-wide orientation programme with contractors to ensure that all on-site workers are aware of operational practices, policies, conditions of employment, and health and safety issues;
- use local and regional suppliers when those suppliers can provide products and services at competitive prices and timeframes;
- work with First Nations groups to increase the participation of First Nation-owned businesses in providing goods and services to the project; and
- develop a business policy including processes to assist First Nations businesses in bidding contracts, and provide a published list of project requirements for goods and services.[303]

It was also estimated by the proponent that the project would generate approximately 400 full-time jobs annually over the 15-year lifespan of the mine. It is important to state here that there were no criteria by either the proponent or the RAs as to how these jobs would be distributed among the groups. Nevertheless, intervenors were hopeful that the project would provide them with the needed jobs if it is approved.

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[303] Ibid.

While some focus on how the project may contribute to economic welfare, specifically, creation of jobs, others were concerned that the project would impact negatively on the social lives of the people in the community.

ii. Social Issues

The concern in this regard was that the project might lead to social problems, such as decreased interest in obtaining higher levels of education (or even basic literacy and numeracy skills), as young people may choose immediate high paying employment at the mine.

In response to these concerns, the proponent indicated that a number of safety and work place conditions, worker lifestyle and worker orientation would be put in place to foresee and address social issues associated with working at a mine. Overall, the promise is that potential socio-economic effects associated with future mine closure would be addressed through the Sustainability Management Plan developed by the proponent.

It remains to be seen whether the proponent would implement the commitments. In any case, it is required for the proponent to make the commitments before the application certificate is granted. Therefore, it is under a legal obligation to implement them. The CEA Act gives the RAs the authority to ensure the implementation of commitments and mitigation measures.[304]

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[304] See CEAA section 20(2).

4.4.4 Cultural and Heritage Issues

First Nations' lives are intricately interwoven around their cultural heritage. In this project, cultural heritage issues such as the destruction of archaeological sites and cultural heritage resources, including traditional land use and non-traditional land use, were at the center of their concerns. Intervenors asked the proponent to continue to seek the opinions of those who live in the area on whether the risks of archaeological destruction are worth the benefits the project may yield.

The proponent, in response, indicated that no resources protected under the Heritage Conservation Act[305] exist in the proposed project area and all sites with archaeological features are considered to have low significance. But in view of the concerns, the proponent made commitments to:

- protect existing and any new cultural heritage resources sites;
- review all Project plans/drawings on an on-going basis to ensure that areas affected by the Project undergo study as necessary;
- mark all Project plans/drawings to identify all areas of archaeological and cultural sensitivity that require protection or monitoring;
- implement protective measures throughout the project area to avoid and mitigate effects on identified archaeological resources and culturally sensitive areas;
- develop and implement a chance find procedure for construction, operation, and closure of the mine to ensure that appropriate protocol and notification procedures are followed when any unidentified archaeological or cultural heritage resources/remains are encountered during development activities; this will include the immediate stoppage of work and the Archaeology Branch and relevant First Nations being informed; and
- Continue to seek and use Traditional Knowledge (TK) throughout the life of the Project.

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[305] Heritage Conservation Act RSBC 1996, c 187.

The proponent further indicated that the project is designed with various features to prevent the destruction of archaeological sites. Furthermore, the commitments made address most of the issues identified by intervenors, and so no significant negative effects are foreseen. A key concern in this study is whether the EA process can deal adequately with social and cultural issues. The question is what the process in its current form can accommodate since non quantifiable issues, such as spirituality could form part of the cultural concerns raised by First Nations.

4.4.5 First Nations Involvement

The proposed Mt Milligan Gold-Copper Mine is located in predominately First Nations territories. Specifically, the project is situated within the claimed traditional territory of the McLeod Lake Indian Band as an adherent to Treaty No. 8,[306] and within the asserted traditional territory of the Nak'azdli First Nation. It is also in an area subject to litigation among certain First Nations signatories to Treaty 8, Canada and the Province of British Columbia. In view of this, the McLeod Lake Indian Band, West Moberly First Nations, Halfway River First Nation and Nak'azdli First Nation were invited to participate in the harmonized EA review process as members of the B.C EA Technical

[306] Treaty No. 8 Order in Council Setting up Commission for Treaty 8 P.C. No. 2749; Treaty 8 is one of twelve numbered treaties made between the Government of Canada and First Nations. Treaty 8, covers 840,000 square kilometres (84,000,000 ha)^2, is larger than France and includes northern Alberta, northeastern British Columbia, northwestern Saskatchewan and a southernmost portion of the Northwest Territories.

Working Group (TWG). This was to enable the proponent to engage in what is described as 'deep consultation' in keeping with the Haida[307] spectrum of consultation.

Despite this move by the proponent, First Nations participation was characterised by boycotts and resentments. In fact, some of the First Nations staged a protest against the project over safety concerns with traffic that is likely to be caused on Highway 27.[308] The only group that seemed to have actively participated in most meetings and the various stages of the EA is the McLeod Lake Indian Band. While the group supported the project, they were concerned that it created a conflict with their neighbours to the west. This issue was not addressed at all by either the proponent or the Crown.

At three different press releases, the most affected First Nations expressed their disproval for the project, citing serious environmental concerns and lack of consultation.[309] To put this in perspective, most of these concerns were directed at the Crown for not fulfilling their legal obligation to consult properly with those affected First Nations. The McLeod Lake Indian Band that seemed to have participated actively and expressed appreciation to the proponent still had to deal with the unresolved issue of the

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[307] Haida Nation v. British Columbia (Minister of Forests), 2004 3 S.C.R. 550, the Supreme Court of Canada in this case unanimously concluded that the provincial Crown has a legal duty to consult in good faith with First Nations about decisions that may impact the First Nation's interests in land before the First Nations have proven title or rights.

[308] Brent Patterson, Nak'azdli blockade against Mount Milligan mine, Council of Canadians' Blog (13th January, 2012) online http://canadians.org/blog/?p=13046.

[309] Nak'azdli Band Council, Press Release: New British Columbia Mine Certificate Flies in the Face of Promised "New Relationship" with First Nations Proposed Copper and Gold Mine Project Cannot Proceed without Nak'azdli , March, 2009, June, 2009 and December, 2009.

territorial boundary conflict that the project created between it and its neighbours. This issue was not resolved because it was not mentioned in the proponent First Nations report, neither was it directly mentioned in the proponent's commitments. The proponent's commitments to First Nations include the following:

- Continue to seek and use traditional knowledge (TK) throughout the life of the project; and
- Incorporate TK into the environmental assessment review and permitting process.

These commitments do not directly address the conflict problem mentioned by the group. The commitments are generic, and there is no indication that the RAs made any further commitments in that regard. First Nations refused to participate in the process organised by the Crown because the Crown refused to engage them on a government-to-government level to deliberate on the serious environmental dangers that would be caused by the project.

Despite these concerns, the authorities stated in the approval letter that First Nations were consulted on the assessment, and that they were satisfied that the Crown's duties to consult and accommodate First Nations interests were discharged. It was suggested that the province may have wanted the project to proceed because of economic benefits. For example, as suggested, the provincial government might be desperate to take the edge off its surprise record deficits and its planned HST tax grab by implying that major mining projects are about to make their return to BC.[310] On the other hand, the federal authorities were looking to make political gain because there was going to be an election in the

[310] Nak'azdli Band Council, Press Release, Ford St James, BC, December, 2009 online< http://www.miningwatch.ca/proposed-mt-milligan-gold-copper-project>.

spring of 2010.[311] These events clearly indicate the reason both governments were probably interested in the development of the project irrespective of intervenor concerns regarding its adverse effects on the environment. It thus point to some state influence in the process that is controlled by the RAs and the proponent.

It must be noted that in Haida,[312] the Supreme Court of Canada stated that to be legally sufficient, the consultation process did not require that the concerns be addressed to their satisfaction. It suffices if the Crown consulted and accommodated them. The Court stated that consultation could be done through the EA process, but this should be taken on a case by case basis. However, the EA process, sometimes, does not provide the right environment for effective consultation. Consequently, some have questioned whether the EA process is the appropriate forum for consultation.[313] The concern is also whether the legal obligation can be achieved through the EA process, especially in cases where the process involves open houses and hearings.This also highlights that the EA process is fraught with challenges in regard to engaging First Nations. Though various consultations were held by the proponent with the different First Nations groups, their final comments on the CSR indicates that Crown consultation was not satisfactory to them. First Nations unsatisfaction perhaps, stem from the fact that the Crown relied on the proponent to fulfill that legal obligation through the EA process. Though the above

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[311] Nak'azdli Band Council, Press Release, December, 2009 where they stated their disproval for the project because of the numerous environmental risks the project would likely cause.

[312] supra note 89.

[313] Annie L. Booth & Norm W. Skelton "Industry and government perspectives on First Nations' participation in the British Columbia environmental assessment process" (2011) 31 Environmental Impact Assessment Review 216.

analysis highlights the general picture with regards to First Nations consultation in the EA process, in this particularly project, some of the First Nations groups thought they were properly consulted. They also believed that the economic benefits of the project would compensate for any adverse effects likely to be caused by the project.[314]

As indicated earlier, RAs have the legal responsibility to authorise some aspects of this project by imposing certain conditions on the proponent. In this regard, the next section discusses the RAs role in ensuring that the proponent's mitigation measures and commitments address intervenor concerns regarding the project likely adverse effects on the environment and community life.

4.4.6 RAs Conditions and Authorisation

The role of the RA is important because they must ensure that the project meets certain regulatory requirements and any conditions imposed on the proponent before the project is approved. RAs may set conditions for the proponent to meet based on their assessment of the likely adverse impacts the project would have on the environment and community life. The conditions RAs impose may also be tailored to public concerns regarding the negative or positive impacts the project would have on their communities. The more direct role of the RAs with respect to public participation is their section 21 duty to ensure that public concerns are considered. It is therefore possible RAs could use these regulatory requirements as a bargaining chip to get proponents to address public

[314] Mcleod Lake Indian Band, 002/004, Re consultation with Mcleod Lake Indian Band on Mt Milligan project (10 December 2008).

concerns. A more general role of the RAs is to work together with Federal Authorities (FAs) to ensure the implementation of mitigation measures and commitments through the follow-up programme prescribed pursuant to the assessment of the project. This section discusses the conditions and authorisation requirements set by the RAs in this project.

The RAs in the Mt Milligan project are DFO and NRCan. They are needed to make authorisations under their respective legal requirements. Specifically, DFO determined that:

- the watercourse crossings associated with the installation of the transmission line requires authorizations under subsection 35(2) of the Fisheries Act
- the watercourse crossings associated with the onsite mine haul roads requires authorizations under subsection 35(2) of the Fisheries Act
- any works or undertakings, that are required as compensation for the harmful alteration, disruption or destruction of fish habitat, require an authorization under subsection 35(2) of the Fisheries Act.

It was understood that the construction and operation of the Mt Milligan project would result in harmful alteration, disruption, or destruction (HADD)[315] of fish habitat in the Rainbow Creek watershed. The RA, therefore, mandated the proponent to prepare a Fish Habitat Mitigation and Compensation Plan that addresses the concerns raised by the public, while also meeting their regulatory requirements and conditions for project approval.[316]

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[315] Fisheries Act RSC, 1985, c F-14.

[316] Fisheries and Oceans Canada, Fisheries Act Subsection 35(2) Authorization for Works or undertakings Affecting Fish Habitat (Authorization No: 06-HPAC-PA1-00014); the valid authorization period for the harmful alteration, disruption and

The compensation plan was to meet DFO's policy of no-net-loss of fish and fish habitat.[317] As part of monitoring the progress and implementation of the compensation plan, the proponent will report to DFO in years 1, 2,3,5,7, and 10 following initial construction to show that the compensation works were conducted according to, and within the schedule of the fish habitat compensation plan. These conditions are not only legally binding; they also serve as authorisation for the proponent to proceed with the development of the project. Failure to comply with any condition of the authorisation could result in charges under the Fisheries Act.

In response to these conditions, the proponent prepared a Fish Habitat Mitigation and Compensation Plan, which was incorporated into the project to minimize these losses. It was determined, however, by the RAs and intervenors, that the proponent's measures would not avoid residual impacts on fish habitat. This is due to the construction of required mine infrastructure over existing stream habitat, and from the reduction of flow in some streams due to mine site water management. In total, 126,584 m2 of fish habitat would be affected by the Project.

In response to these concerns, the proponent proposed additional compensation options for implementing relevant components of the Mt Milligan Gold-Copper Mine project. These options were intended to alleviate habitat bottlenecks in different parts of the Rainbow Creek watershed. Compensation options were targeted to increase

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destruction of fish habitat associated with the works or undertaken is: from November 17 2010 to December 31, 2012.

[317] This was the RA section 35(2) of the Fisheries Act requirement for the proponent to meet and also a condition for approving the project.

production of fish species most directly affected by the Project. The proponent's plan, confirmed to the RA that all plans and specifications relating to the authorisation were duly prepared and reviewed by appropriate professionals working on behalf of the proponent.

On this condition, the proponent acknowledges that they are solely responsible for all design, safety and workmanship associated with the authorisation. On the issue of monitoring, the proponent commits to undertake a Monitoring Program (which covers the HADD issues), during construction and provide a summary report to DFO on the monitoring program after construction was completed. The report would be submitted to DFO within 60 days of the completion of construction. This report will detail whether the mitigation measures outlined in the proponent's plan were followed.

However, MiningWatch, during the public comment period, indicated that the proponent's mitigation measures did not meet the RA's no-net-loss policy.[318] In response, the RA indicated that, under the guiding principle of no net loss of the productive capacity of fish habitat from DFO's Policy for the Management of Fish Habitat, DFO would strive to balance unavoidable habitat losses with habitat replacement on a project-by-project basis.[319]

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[318] Responsible Authority Response to Public Comments on Comprehensive Study Report for the Proposed Mount Milligan Gold-Copper Mine (October 2, 2009 to October 31, 2009) online at http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=39778.

[319] Ibid.

On the concerns raised by the public as to the inadequacies of the compensation measures, the RA contended that the guiding principle of DFO's Policy for the Management of Fish Habitat is to strive to maintain the capacity of fish habitat to produce fish for human consumption, or to produce aquatic organisms upon which fish depend.[320] Therefore, this can be accomplished either through creation of new fish habitat or increasing the productive capacity of existing fish habitat.[321] The fish habitat compensation measures will be monitored to ensure stability and effectiveness. However, MiningWatch contended that based on published and internal documents, DFO recognized that as currently practised, the habitat compensation and no net loss policies are often ineffective at achieving their goals.[322]

DFO indicated it was satisfied with the fish habitat mitigation and compensation plan proposed by the proponent. Though MiningWatch was not completely satisfied with the proponent's proposed compensation measures and the RAs responses, the measures seemed reasonable. In any case, these measures part of a general step by the proponent to fulfil its legal obligation and approval conditions under DFO.

The CEA Act mandates the RA to ensure that the public is provided with the opportunity to participate in the comprehensive study. But the RA has the discretion to determine whether the proponent's mitigation measures are satisfactory. In this regard, MiningWatch determined that the proponent's mitigation measures and compensation

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[320] Ibid.

[321] Responsible Authority Response to Public Comments on Comprehensive Study Report for the Proposed Mount Milligan Gold-Copper Mine (October 2, 2009 to October 31, 2009) online at http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=39778.

[322] Ibid.

plan do not fully address the adverse impact of the project effect on fish and fish habitat based on the reasons advanced earlier. However, the RA was satisfied with it which is within the remits of its mandate. Thus, the final decision favoured the proponent's mitigation measures. While the RAs' seemed reasonable in this occasion, the discretion of the RAs could have been detrimental to intervenors where there are unreasonable. This is because as federal regulator, the RA sets the conditions for the proponent to meet. At the same time, the RA responds to public comments by defending the mitigative measures proposed to meet the conditions. It would have been appropriate for the proponent to defend its own measures before intervenors, rather than RA performing that role on behalf of the proponent. This questions the ability of the RA to independently ensure that a proponent's commitments and mitigation measures are fully subject to public scrutiny.

Similar to DFO, NRCan was also required to authorise the project and issue a factory licence pursuant to subsection 7(1) (a) of the Explosives Act.[323] Though there was no specification of the conditions imposed on the proponent by NRCan, unlike DFO, the proponent was required to develop an explosive management plan to deal with accidents and malfunctions that might occur in the course of mine development. In pursuit of this, the proponent came up with an explosive management plan that contains standard operating procedures as a mitigative measure against accidents and malfunctions.[324] NRCan subsequently expressed satisfaction with the plan. The study could not determine public comments on this particular issue because of data limitations.

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[323] Explosives Act, RS, 1985, c E-17.
[324] Comprehensive Study Report supra at 119.

Generally, environmental issues raised by MiningWatch appeared not to be fully addressed in their opinion. Social and economic issues were satisfactorily addressed by the proponent through its commitments. Some First Nations were not satisfied with the way their concerns both on substantive issues and procedural matters were handled by the Crown. Though the public were satisfied with the job prospects of the project, some were also concerned about the adverse environmental effects the project would cause to the environment. However, most intervenors including some First Nations thought the project economic potentials would compensate for the likely adverse effects.[325] There was a monitoring and follow-up program for this project. However, with the exception of a follow-up program designed to meet the requirements of federal regulatory instruments, such as Fisheries Act and the Explosives Act, the RAs rely on the proponent and the province for the implementation of the follow-up program. This raises some concerns for the proponent an interested party to carry out this exercise since there no effective public engagement program in during the follow-up.

4.4.7 Concluding Observations: Mt Milligan Project

The foregoing analysis of the extent to which RAs and proponents are responsive to intervenor comments in the Mt Milligan comprehensive study under the CEAA indicates that for the most part, the proponent was more responsive to those comments

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[325] As indicated in this comment by intervenors: I am confident that the environmental review process is sufficient to conserve our environment while allowing the mine to be built. The only adverse effect I would predict is continuous exodus of working class families from B.C if this project is not approved or if the mine is not opened.

than the RAs. MiningWatch was not satisfied with the RAs and proponent's responses to the concerns they raised regarding inadequacy of commitments in relation to the Fish Habitat Mitigation and Compensation Plan. Consequently, MiningWatch appealed to the RAs that no federal permits should be provided to the proponent until the technical concerns identified in the comprehensive study report were satisfied, and the free, prior and informed consent of the directly affected First Nations is obtained. In their final submissions, MiningWatch suggested that referral of the project to a panel review would help to resolve these outstanding issues.[326] This demands seemed unreasonable since it was not clear whether a panel would have necessarily agree to their suggestion if the panel thinks the proponent's mitigation measures are adequate.

While the RAs and the proponent were satisfied with their consultation with First Nations, some First Nations expressed concerns with the Crown's discharge of its duty to consult.[327] The most affected First Nations groups appeared dissatisfied with the Crown's duty to consult and accommodate but were comfortable dealing with the proponent. This is an indication of the proponent's willingness to engage with First Nations during the EA process. The Crown's duty to consult and accommodate First Nations has long been settled by the Supreme Court of Canada in Haida.[328] The duty to consult requires trying to accommodate, but not necessarily reach an agreement with First Nations. It requires a

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[326] MiningWatch Canada, Terrane Minerals Mt. Milligan Copper-Gold Project (2008) Mines Alert online <www.miningwatchcanada.ca>.

[327] Nak'azdli Band Council, Press Release, "New British Columbia Mine Certificate Flies in the Face of Promised "New Relationship" with First Nations Proposed Copper and Gold Mine Project Cannot Proceed without Nak'azdli" (19 March 2009).

[328] Supra note 89.

good faith effort to understand the First Nations' concerns, and to move to address them meaningfully. This is why some scholars call for consultation to be independent of the EA process.[329]

4.5 Concluding Observations: Galore Creek and Mt Milligan Projects

Generally, these two projects are in all material respects, similar to each other. Also, it is quite clear from the assessment of the EA process in both projects that there were opportunities for public participation. This is exemplified by the fact that both EA public consultation processes were characterized by open houses, oral hearings and other opportunities for written submissions.[330] This is evident from the fact that there were no concerns from intervenors regarding lack of or inadequate opportunities for them to participate during the EA process. Also, it was quite clear that the proponents appeared to more responsive to intervenor comments than the RAs. The major concern by intervenors in the two cases therefore was whether they were being listened to or taken seriously by the RAs. However, in the Galore Creek project, RAs and proponent seemed to be slightly more responsive to intervenor comments than in the Mt Milligan case. In the Galore Creek project, it appears the RAs were somewhat willing to impose more regulatory conditions than in Mt Milligan. The presence of more RAs in Galore Creek and the relatively more regulatory conditions imposed, could account for the difference in an

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[329] Annie L. Booth and Norman W. Skelton "Improving First Nations' participation in environmental assessment processes: recommendations from the field" (2011) 29 Impact Assessment and Project Appraisal 49.

[330] See Galore Creek Comprehensive Study Report 2007 section 4.1 at 22-26 and Mt Milligan Comprehensive Study Report 2009 section 6.0 at 147-150.

assessment of the two projects. In relative terms, First Nations were more satisfied with their consultation in the Galore Creek project by both proponent and Crown while in the Mt Milligan case, FirstNations felt more engaged by the proponent than the Crown. It can be concluded from the results that proponents were more responsive to intervenor concerns in Galore Creek and Mt Milligan project. However, between the two projects, Galore Creek proponents and RAs were fairly more responsive than Mt Milligan see Tables 1 and 2 Appendices A and B).

The proponents in both projects made several commitments, some of which directly addressed intervenor concerns while others broadly addressed their concerns. For instance, the Galore Creek proponent had 193, while in Mt Milligan, the proponent made 97 commitments to implement throughout the various phases of the project. Legally, they are bound to implement the commitments pursuant to the BC Environmental Assessment Act. Federally, the RAs are to ensure that the proponents implement these commitments through the monitoring and follow-up programme established under section 16(2) of CEAA. However, in practical terms, the RAs rely on the province and the proponents to implement these commitments.

The study found that in practical terms, it was the proponents who controlled the greater part of the public consultation processes in the two projects, though in principle, and from the legal stand point, the RAs conduct and control the EA process. The CEA Act makes it possible for the RAs in comprehensive studies to delegate any part of the

conduct of the EA to the proponent.[331] This explains why in these two projects, the RAs delegated some aspects of the public consultation process to the proponents. But the Act gives RAs some discretion to decide the level of control and influence the proponent had in the conduct of the EA.

The study found that RAs, who were responsible for conducting the EAs, were more likely to agree with the proponent than with intervenors. The conclusion that can be drawn from this is that, perhaps, the RAs pushed the proponents through the process to make these commitments. This explains why the RAs sided with the proponents because in the end, they accepted the commitments made by the proponents via the comprehensive study process.

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[331] CEAA section 17(1) states that a responsible authority may delegate to any person, body or jurisdiction within the meaning of subsection 12(5) any part of comprehensive study of a project or preparation of a comprehensive study report, and may delegate any part of the design and implementation of a follow-up, but shall not delegate the duty to take course of cation.

CHAPTER V: PARTICIPATION, DELIBERATION AND INFLUENCE: AN EXAMINATION OF JOINT REVIEW PANELS UNDER CEAA

5.1 Introduction

The preceding chapter explored the EA process with focus on the public participation component of comprehensive studies under CEAA. The Galore Creek and the Mt Milligan comprehensive study projects were used to illustrate the extent to which RAs and proponents were responsive to intervenor comments.

This chapter explores in detail the regulatory and institutional processes that frame the public participation element of joint review panels under CEAA. The chapter utilizes the Whites Point Quarry Terminal[332]and Sydney Tar Ponds panel review projects for the discussion. Panel reviews have served as an important forum for public debate on large projects in the EA process in Canada. This is because panel reviews could, and do engage broader sections of the public through the EA hearing process. They also add transparency to the EA process because they typically operate from a neutral point of view from government and proponents. It is against this background that this chapter discusses these two panel review projects to ascertain how responsive panels and proponents were to intervenor concerns. The objective as indicated earlier is to ascertain the degree to which the panel considered intervenor comments and the extent to which those comments were taken up by government.

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[332] Canada, Environmental Assessment Agency, Environmental Assessment of the White Point and Marine Terminal Project (Joint Panel Review Report, 2007) (Chair: Robert Fournier).

Part I discusses the panel review process option under CEAA. It identifies the key differences between this process option and comprehensive studies in relation to opportunities for public involvement. This also involves an examination of the regulatory and institutional framework governing panel reviews. Part II analyses the panel review case studies mentioned above to illustrate and discuss the extent to which panels and proponents were responsive to intervenor comments, and whether their comments were incorporated into the final decisions. This contrasts to chapter 4 where the focus was on the RAs and proponents.

In part III, the chapter examines the learning outcomes from intervenor participation in the EA process. This is premised on the fact that intervenors derive mutual understanding of the process by learning from each other, and by drawing on their experiences from previous projects. Mutual learning, to some extent, signifies individuals' and organisations' appreciation that their interests are closely intertwined with broader social interests such as environmental protection.[333] This study only examines mutual learning among intervenors. Part IV concludes with observations as to who controls the process and the final substantive decisions, and as to whether the panels were independent of state and proponent influence in their decision making.

[333] Jane Holder, Environmental Assessment: The Regulation of Decision Making (New York, Oxford University Press, 2004).

5.2 Panel Review Process Option under CEAA

Panel reviews under CEAA are different in various respects regarding how they are conducted. Compared to a comprehensive study, a panel review is a more independent form of assessment, especially regarding the nature of public involvement.[334] The major feature of panel review which differentiates it from a comprehensive study is the fact that, the participation process is taken out of the control of the responsible authority (RA)[335] and given to an independent panel appointed by the Minister of Environment.[336] Additionally, the final project decision is taken by the Governor in Council, compared to a comprehensive study where the Minister takes the key project decisions.[337] The Minister can make this decision any time before, during, or at the conclusion of a screening level assessment.

The Minister's role is central in panel reviews. While the implementation of the actual process rests with an independent ad hoc appointed panel, the important process decisions are made by the Minister.[338] When a decision is made to refer a project to a panel, the Minister's assume control to determine the scope of the project,[339] the scope of

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[334] CEA Act, supra note 1 see section 29.
[335] CEAA section 34.
[336] CEAA section 33.
[337] CEAA section 37 (1.1).
[338] CEAA section 37; also see Canadian Environmental Assessment Agency, Procedures for an Assessment by a Review Panel: A Guide Issued by the Honourable Minister of the Environment Pursuant to s.58(1)(a) of Canadian Environmental Assessment Act (Ottawa, 1997) online: CEA Agencyhttp://www.ceaa.gc.ca>.
[339] CEAA, S. 15.

the assessment,[340] the terms of reference of the panel,[341] and the appointment of members of the panel.[342] The Minister makes the scoping determination irrespective of whether the responsible authority has already determined the scope of the project or the scope of assessment for the purposes of a screening or a comprehensive study.[343]

The Minister's control of the process ends once the scoping determination is made. This allows the panel to take charge of the process based on the perimeters set by the scoping decision and the terms of reference issued by the Minister. Part of the panel's mandate is to establish procedures, hold hearings, receive oral and written comments and make recommendations for policy and decision-makers. In finalising its public participation programme, the panel has the responsibility under section 34 of CEAA to:

- ensure that the information required for an assessment by a review panel is obtained and made available to the public;
- hold hearings in a manner that offers the public an opportunity to participate in the assessment;
- prepare a report setting out the rationale, conclusions and recommendations of the panel relating to the environmental assessment of the project, including any mitigation measures and follow-up program, and a summary of any comments received from the public; and
- submit the report to the Minister and the responsible authority.[344]

Apart from the legal requirements, as a matter of guidance, the panel has the responsibility to:

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[340] CEAA, s. 16(3).
[341] CEAA, s. 33 (1)(b).
[342] CEAA, s. 33(1)(a)
[343] CEAA section 15; also see Meinhard Doelle, The federal Environmental Assessment Process: A Guide and Critique. (Markham, Ont.: LexisNexis Canada, 2008) p 177.
[344] CEAA s. 34.

- provide opportunity for interested parties to indicate their interest in participating in the review;
- take into account cultural seasons, key community gatherings, and general assemblies of aboriginal communities;
- take into account seasonal, economic and social considerations;
- develop a mailing list of all participants in the review, using electronic mail where possible;
- determine the most appropriate means of communication for public participation;
- determine the language requirements; and
- determine the need for and mandate of a local information officer.[345]

Once a review panel has completed its work, the public hearings, and its analysis, it must prepare an environmental assessment report which summarizes its rationale, conclusions and recommendations, including a summary of comments received from the public. This report is submitted to the responsible authority and the Minister of the Environment who then makes it public. The responsible authority must take the review panel's report into consideration before making any decision with regard to the project. It must also respond to the report, with the approval of Cabinet.[346]

The Minister must make the panel report available to the public, and the responsible authority must use this report, with the approval of governor in Council, to determine whether to exercise its powers, duties and functions to allow the project to proceed.[347] This determination of whether or not the project can proceed is made on the basis that the

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[345] Canadian Environmental Assessment Agency, Procedures for an Assessment by a Review Panel: A Guide Issued by the Honourable Minister of the Environment Pursuant to s.58 (1) (a) of Canadian Environmental Assessment Act (Ottawa, 1997) at 12 online: CEA Agencyhttp://www.ceaa.gc.ca>.

[346]Canadian Environmental Assessment Agency supra note 98 also online CEA Agency <http://www.ceaa.gc.ca/default.asp?lang=En&n=B053F859-1#comp>.

[347] CEAA s.37.

project is not likely to cause significant adverse environmental effects, or that significant effects are justified in the circumstances. If the Governor in Council decides that the project can proceed based on the EA carried out by the panel, RAs may still decide whether to exercise their powers, duties and functions under section 5 of CEAA. Subsequently, the panel's recommendations beyond the "likely significant" test can be useful in enabling the RAs to make their determination consistent with the purpose of the Act.

Stakeholder engagement is a pivotal element in panel reviews, and process transparency is the driving force behind public involvement in panel reviews. The tools and mechanisms by which to ensure transparency are public notices of the essential steps in the process and direct access to the panel through hearings. This includes access to relevant information and documentation through the electronic registries. Similar to comprehensive studies, participant assistance is provided.[348] Community and aboriginal knowledge may be considered during the panel public review process.[349]

Review panels have the unique capacity to encourage an open discussion and exchange of views. They also inform and involve large numbers of interested groups and members of the public, as it allows individuals to present evidence, concerns and recommendations at public hearings. A panel allows the proponent to present the project to the public and to explain the projected environmental effects. It also provides opportunities for the public to hear the views of government experts about the project.

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[348] CEAA section 58(1.1).
[349] CEAA section 16.1.

Despite the potential for greater public participation in review panels, limitations such as capacity, time and resources availability to members of the public to effectively challenge the proponent threatens the process.[350] This is because the proponent has more resources than members of the public. This limitation has the potential to prevent the public from commenting on issues relevant to them. The adversarial nature of the process has the potential to discourage members of the public with genuine interest from being involved in it.

In addition to the standard panel process, CEAA provides for joint panels,[351] and this demands cooperation between the Federal Government and other jurisdictions, such as the provinces. In joint panels, the Minister of Environment and the Minister of Foreign Affairs may enter into an agreement or arrangement with that jurisdiction respecting the joint establishment of a review panel and the manner in which the environmental assessment of the project is to be conducted by the review panel.[352] In joint panel reviews, issues such as the scope of the assessment, timelines, intervenor funding, and some procedural concerns are harmonised. These agreements in most cases come in the

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[350] Meinhard Doelle, The federal Environmental Assessment Process: A Guide and Critique. (Markham, Ont.: LexisNexis Canada, 2008) at 179.

[351] CEAA section 40.

[352] CEAA s.40 (3), For the purpose of this section, a federal authority may enter into an agreement or arrangement with a jurisdiction usually provincial to establish a joint review panel in line with how the assessment of the project is to be conducted by a review panel; also, Any agreement or arrangement referred to and any document establishing a joint review panel shall be published before the commencement of the hearings conducted by the review panel.

form of project–specific memorandums of understanding, but they can also be in the form of generic harmonisation agreements.[353]

There are some similarities between comprehensive studies discussed in chapter 3 and review panels: both processes have mandatory public participation and participant funding requirements. However, while in joint review panels the process is taken out of the control of the responsible authority, in a comprehensive study, it is the responsible authority, with CEA Agency as a coordinator, which controls the entire process.

The case studies discussed subsequently, practically illustrate the EA process described above, with a view to assess how responsive the panel and the proponent were to intervenor concerns. It begins with a description of the federal and provincial EA processes (in the Whites Point and the Sydney Tar Ponds EAs), followed by a detailed discussion of the substantive issues that were raised. Changes resulting from public participation, responses from the panel, including panel recommendations and proponent's responses are also discussed.

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[353] See for example Canada-British Columbia Agreement for Environmental Assessment Cooperation, 2004. This agreement provides for coordinated environmental assessment processes between the CEA Agency and EAO.

5.3 Case Study Three: Whites Point Quarry and Marine Terminal Project

5.3.1 Project Description: The project as proposed before public comments

The White Point Quarry was proposed by Bilcon of Nova Scotia Corporation (the Proponent/Bilcon) to construct, operate and decommission a large basalt quarry, processing facility, ship loading facility and marine terminal at Whites Point, Digby County, Nova Scotia, for the export of aggregate to New Jersey, USA. It is estimated that the company was going to produce 2 million tonnes of aggregate per year for 50 years. The aggregate was to be transported weekly on 600 foot vessels from Nova Scotia to New Jersey. Marine facilities would consist of two parts: berthing dolphins and mooring buoys to support and restrain a 230m bulk carrier ship. Quarrying and processing of the rock would take place on a 152-hectare site located on Digby Neck, approximately 30 km southwest of Digby, Nova Scotia. The site covered 2.6 km of undeveloped coastline.

The commercial activity at Digby Neck, the project area, is and has always been fishing and tourism.[354] The area is a traditional fishing community with low population density, and almost no industrial activity. In 2001, the United Nations Education, Scientific and Cultural Organisation (UNESCO) designated the five counties comprising, south Nova Scotia, including Digby Neck, as a Biosphere Reserve.[355] The New Brunswick portion of the upper Bay of Fundy was also designated a Biosphere Reserve in

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[354] Canada Statement of Defense of Government of Canada in Bilcon v. The Government of Canada (Ottawa: Ontario, 2009).

[355] A Biosphere Reserve is an area of terrestrial and coastal ecosystems that promote biodiversity, conservation and sustainable resources.

2007.[356] In addition to being a fishing community, the place has tourism value. Fishing villages along the peninsula and the ecological splendour of the Bay of Fundy have transformed the Digby Neck into a center of ecotourism. For example, activities like Whale watching, birding, hiking, beachcombing, photography and kayaking have become popular tourist attractions and major economic activities in the area. It was, therefore, necessary for the project proponents to justify how overall, it would contribute to the attainment of ecological and community sustainability both at the local and regional levels.

Opposition to the proposed quarry centered on the potential impacts of the project on the local lobster and herring fisheries, on tourism, and on the general quality of life, including aesthetics, noise and air quality. Other concerns related to the endangered Atlantic salmon and marine mammals, such as the endangered right whale in the Bay of Fundy.[357] There was concern about the impact of the project on local water quality, and about the introduction of alien species through ballast water exchange in the Bay of Fundy.[358]

The large public interest in this project because of the adverse significant environmental consequences associated with its development necessitate an examination of the EA process to highlight how the public participation process was organised, and what its influence on the final decision was. The following subsection discusses,

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[356] Canada Statement of Defense of Government of Canada in Bilcon v. The Government of Canada, supra note 108.

[357] Joint Review Panel 2007, supra.

[358] Joint Review Panel Report 2007.

generally, the Whites Point joint panel review process designed by the Federal Government and the Government of Nova Scotia.

5.3.2 The EA Process

The EA process for the proposed Whites Point quarry started in 2002 with an application for approval of a 3.9 ha quarry to the Nova Scotia Department of Environment and Labour.[359] The 3.9 ha quarry was to serve as a test site to determine the viability of the larger project. The size of the quarry was designed to avoid a provincial environmental assessment, which was required for quarries larger than 4 ha.[360] In April, 2002, the proponent was granted approval by the province. This approval brought the larger project to the attention of the public. Opposition to the quarry built over the course of 2002.[361] The proponent generally took an adversarial approach to engaging with those concerned about the proposed project.[362]

In early 2003, the proponent applied for federal and provincial permits and approvals for the full quarry. The project triggered both provincial and federal EA processes. Their application for the construction of a marine terminal would necessitate authorizations under the federal Navigable Waters Protection Act[363](NWPA) from

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[359] Joint Review Panel Report 2007.

[360] Quarry Proposal Killed: Victoria Beach Group Welcomes Province's denial of ApplicationThe Chronicle Herald, Thursday, December 9, 2004

[361] Neil Craik, Meinhard Doelle and Fred Gale "Governing Information: A Three Dimensional Analysis of Environmental Assessment" (2012) 90 Public Administration 19 at 7.

[362] Ibid at 7.

[363] Navigable Waters Protection Act supra at section 5(1).

Transport Canada (TC) and under the Fisheries Act[364] from Fisheries and Oceans Canada (DFO). The required authorizations triggered an assessment under the Canadian Environmental Assessment Act.[365] The proposal to enlarge the quarry to greater than 4 hectares also triggered a provincial Environmental Assessment under Part IV of the Nova Scotia Environment Act,[366] administered by Nova Scotia Environment and Labour (NSEL). Under the federal Canadian Environmental Assessment Act, a project of this nature is subject to a comprehensive study, which requires the preparation of a detailed impact assessment, and some ongoing public consultation.[367] Provincially, the Minister had considerable discretion to determine the level of assessment required.

In January 2003, DFO, the responsible authority for the project, determined that a comprehensive study would be required. In March, 2003, the federal and provincial Ministers agreed to jointly carry out a comprehensive study of the project. Under the Act, the agency responsible for the EA, in this case the Minister of Fisheries, may create a review panel that conducts formal hearings and issues a report outlining its findings and recommendations to the Minister.

In June 2003, the Federal Minister of Fisheries and Oceans required that the Project be referred to a Panel Review under the Canadian Environmental Assessment Act. A review panel may be created where the responsible authority is of the view that the project may result in significant adverse environmental impacts or where public concerns

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[364] Fisheries Act, supra at section 35(2).
[365] CEAA, supra.
[366] NS Environmental Act 1994-95, c.1., s.1.
[367] CEAA s. 21.

warrant a review.[368] On 5 November 2004, the Federal Minister of the Environment, and the Nova Scotia Minister of Environment and Labour, announced the creation of a three-member Joint Review Panel to assess Bilcon's proposed basalt quarry and marine terminal at Whites Point, Digby County.

The process commenced with the development of Environmental Impact Statement (EIS) guidelines, which were issued by the panel in March 2005, following public engagement through scoping hearings and written comments. The underlying principles driving the guidelines as established by the panel included:

- sustainable development: Sustainable development suggests that communities make decisions about the use and commitment of resources while respecting the rights of future generations and other communities to social, economic and environmental health;
- public participation: Environmental assessment requires the meaningful participation of community members;
- Traditional Community Knowledge: Local people provide valuable knowledge to complement scientific studies provided by consultants and other experts;
- ecosystem approach: a strong foundation of scientific knowledge is fundamental to the assessment of potential environmental effects that may affect ecosystem health and viability; and
- the precautionary principle: Where there are threats of serious or irreversible damage, the precautionary principle suggests that uncertainty does not reduce the need to try to prevent environmental degradation.[369]

The EIS guidelines served as direction to the proponent on issues it had to address in its Environmental Impact Statement (EIS). The proponent submitted its 3000 page EIS in April, 2006. Public comments and two rounds of information requests

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[368] CEAA s.25 and Doelle Meinhard, supra note 103.
[369] Joint Review Panel Report 2007 at 3.

identified some 100 deficiencies in the EIS.[370] The proponent submitted a further 1200 pages of documents in response to the information requests. In May, 2007, the panel concluded that it had enough information to proceed to hearings.[371] The hearings took place in June, and the panel released its report in October, 2007. Participation in the panel review process was broad, including local businesses, seasonal residents, fishermen, academics, government officials, and elected representatives from the area.[372]

In November 2007, the Nova Scotia Minister of the Environment determined that the 'proposed Project poses significant adverse effects to the existing and future environmental, social and cultural conditions influencing the lives of individuals and families in the adjacent communities.'[373] As a result, the project was not approved by the province. In December 2007, the federal Minister of Fisheries and Oceans (approved by the Governor in Council) announced that he agreed with the Panel finding that the project is likely to cause significant adverse environmental effects that cannot be justified in the circumstances. Based on this decision, responsible authorities were directed not to issue any authorizations or approvals for the project.[374]

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[370] Neil Craik, Meinhard Doelle and Fred Gale supra note 113 at 8.

[371] Joint Review Panel Report 2007, section 1.2.3.

[372] Joint Review Panel Report 2007.

[373] Canada, Environmental Assessment Agency, Environmental Assessment of the White Point and Marine Terminal Project Executive Summary Recommendation 1, (Joint Panel Review Report, 2007) see also New Release: Environment and Labour, Minister Rejects Whites Point Proposal Environment and Labour (NS, 2007) also available at www.gov.ns.ca/enla.

[374] Gibson, R. and A. Fonseca, "Application Denied" (2009) 34 Alternatives 4 also see Mullen, D. 2009. "Power of the People" (2009) 34 Alternatives 4.

The regulatory and EA processes described above indicate that the public concern and involvement in this project started before the panel hearing. For example, groups opposed to the project launched a campaign to pressure the local Member of Parliament and Minister of Fisheries to call for a panel review long before the review panel started its work. It is even argued that a local long time conservative member of the legislative assembly for the province of Nova Scotia, Gordon Balser, lost his seat in a provincial election in 2003 due in large part to his support of the proposed quarry.[375] The authorities' earlier decided to have the project assessed by way of comprehensive study. The chosen process was substantively thorough, but it was run by government officials rather than an independent panel.[376] Additionally, comprehensive studies, at the time, generally involved no hearings, limited requirements for public engagement, and no participant funding.

The significant thing about this EA is that the panel mandate differs from some other CEAA panels, in that the panel drafted the EIS guidelines; in other words, the panel was engaged in the scoping process. The panel also directed the proponent on the principles that should guide it in preparing the EIS. The panels'engagement in the scoping process is crucial because its decisions are integral to the capacity of the process to deliver on the principles and purposes of CEAA.[377] The final decision in this project,

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[375] Noah Richler, 'Rock Bottom: With the seas nearly barren, should Digby Neck, Nova Scotia, settle for selling the earth?' (Walrus Magazine, December, 2007).

[376] Neil Craik, Meinhard Doelle and Fred Gale supra note 113.

[377] Some of the purposes and principles of CEAA include the need to ensure public involvement: the emphasis that environmental assessment requires meaningful

which was a recommendation to reject the project, reflected the mandate granted to the panel to conduct the process. This was clearly demonstrated when the panel held the proponent to every one of the principles and found that the proponent incompetently and, in some cases, inadequately handled the principles. This had strong influence on the final recommendations of the panel which was an outright rejection of the project. It thus means that if panels are given the mandate to direct the proponent in the EIS guidelines in the scoping process as to what issues to cover, the proponent will be more accountable to the panel and the public.

With this background, the next section reviews the panel report and other related documents of the Whites Point quarry project to show the extent to which the panel and the proponent were responsive to public comments. The section discusses the concerns raised by the public and the panel recommendations that seek to address them. As in chapter 4, intervenor concerns are thematically discussed as environmental, socio-economic and cultural heritage issues.

5.3.3 Intervenor Concerns and Panel Responses

The concerns generated by this project were based on the ability of the proponent's EIS to address the likely adverse environmental effects related to the project. The Whites Point Quarry involved construction and excavating of rocks, among others things. This required changing the biophysical shape of the landscape of the environment

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public involvement, and the need to incorporate traditional knowledge, since local people provide valuable knowledge to complement scientific enquiry.

with their attendant effects. Intervenors major concerns regarding the project and the environment had to do with its direct effect on water quality, air quality, noise, dust, vibration, tourism, fishing, community life, farming and forestry.

5.3.4 Summary of Intervenor Concerns

From Table 3(see Appendix C), intervenors identified in this project included First Nations, ENGOs, Government Agencies, the public, local government, academics and community members.[378] The issues raised by these intervenors centered on the short and long term effects of the project on community life, the environment, socio-economic and cultural problems. In Table 3, intervenors raised a total of 21 concerns. Of this number, 20 of them were fully addressed by the panel, and it could not be determined whether the one issue was addressed fully or partially. Most of these concerns were not addressed in any meaningful way by the proponent. First Nations raised about 5 concerns. While these concerns were fully addressed by the panel, the proponent EIS did not address them properly.

The notable ENGOs that participated in the various aspects of the project were Sierra Club of Canada (SCC), Canadian Parks and Wilderness Society (CPAWS), Ecology Action Center (EAC) and Friends of Nature. Altogether, they raised 6 issues bordering on various aspects of the environment. All the 6 concerns were fully addressed

[378] For the purpose of this discussion, the local government and community members are classified as the public.

by the panel, but erratically addressed by the proponent.[379] On the part of the public, local government and community members, 5 concerns were raised and all were fully addressed by the panel.

Finally, federal government agencies broadly raised 4 concerns. Some were partially addressed by the proponent, and with these, some government agencies were satisfied. However, other government agencies were not satisfied with the proponent's mitigation measures, but satisfied with the panel recommendations.

The next section undertakes a detailed discussion of the issues as environmental, socio-economic and cultural heritage issues, and indicates how the panel responded to them.

5.3.5 Discussion of Concerns: Environmental Issues

The major environmental issues raised in this project include, but are not limited to blasting, water management and quality, terrestrial ecology and marine and coastal environment.

1. Blasting: the effects of Vibrations, Noise and Dust

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[379] See Table 3 Appendix C; also see Whites Point Joint Review Panel Report 2007; and Submissions of the Green Party of Canada to Whites Point Quarry and Marine Terminal Project Joint Review Panel 2007 online at http://www.ceaa.gc.ca/default.asp?lang=En&n=B4777C6B-1.

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The effect of blasting does not only obliterate the physical environment, it results in vibrations, noise and generation of dust. Most intervenors bemoaned the noise levels that the blasting would cause if the project was approved. As a participant said "will my family be subject to an industrial sound while living in a rural setting"[380]?

On this issue, the proponent presented conflicting information during the hearings (different from how it is described in the EIS), as to the size of each planned operational blast, the blast array, the amount of explosive to be used, and the possible number of blasts required. As a mitigation measure, the proponent proposed normal operations from 0600 – 2200 hours, six days a week, to prevent residents being subjected to noise in the day, although some ship loading could occur overnight or on Sunday. The proponent also proposes to completely enclose each component of the process to minimize dust and noise. Truck beds and crusher chutes would also be lined with rubber mats to reduce noise.

The panel, however, indicated that the explosive weights used for operational blasting appear to fall well above those cited in the examples or the modelling, and therefore, was unconvinced that the proponent's compliance with the noise levels would be feasible. The panel argued that the proponent did not consider the environmental effects or operational implications of smaller and more frequent blasts.[381] They further

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[380] Public Hearing Transcripts, White Point Quarry and Marine Terminal Project, (Joint Review Panel, 2007) online CEAA< http://www.ceaa.gc.ca/B4777C6B-docs/WP-1811-013.pdf>.

[381] White Point Quarry and Marine Terminal Project, (Joint Review Panel, 2007) at 28, online CEAA< http://www.ceaa.gc.ca/B4777C6B-docs/WP-1811-013.pdf>.

asserted that basalts are denser and more cohesive than virtually any other rock type commonly quarried. The amount of explosives needed to fragment massive basalts would be expected to lie above the generic value rather than below it. In view of the uncertainties about volumes of explosives, the panel considers it advisable to use precaution and estimates that the amount of explosives used to fragment one tonne of rock could be 0.45 kg.[382]

After taking into account public concerns on this issue, the panel concluded that considering the high-end estimates of explosive to be used, and acknowledging the risk of residual chemical contamination, degradation of the environment, discharges of chemicals into water bodies, and environmental effects of blasting in general, it held that adverse effects could result from blasting that cannot be mitigated. In this regard, the panel found the proponent's mitigation measures related to blasting as inadequate to prevent the effects that blasting is likely to have on the communities.

2. Water Management and Quality

i. Surface and Ground Water

The project effect on water quality was a key concern raised by the public throughout the hearing process. In response, the proponent proposed to channel surface runoff and recycled process water into a set of five interconnected sedimentation ponds. The purpose of the sedimentation ponds would be to retain fine suspended sediments from washing

[382] Ibid at 29.

operations, to provide storage of water required for quarry operations, and to control runoff during storm events. The proponent EIS concluded that quarrying operations would not adversely affect the quantity and quality of the groundwater supply or the local wells.[383] These conclusions were generally not based on any research or argument in the EIS. This raised questions for participants regarding whether the proponent EIS was seriously researched or the EA process or intervenor concerns on this issue was taken seriously.

In response, the panel stated that in normal conditions, the proposed sedimentation ponds would have the capacity to manage surface water. However, a comprehensive rainfall dataset (1880-2006) provided by Environment Canada predicts maximum drought conditions that exceed those suggested by the proponent in the EIS. In view of this, the panel indicated that in anticipation of such a drought, pond storage would have to be significantly higher than recommended by the proponent, along with release volumes and flow rates commensurate with these higher requirements.[384]

The proponent subsequently presented the panel with various scenarios regarding surface water management. However, the panel found all of them to have possible environmental problems. To this end, the panel concluded that in the absence of a more reliable design and concrete management plan, the panel was unable to conclude that the proposed structures and surface water management plan would retain fine sediments and

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[383] Plain Language Summary Volume I, Whites Quarry &Marine Terminal, Environmental Impact Statement (Bilcon, Nova Scotia, 2006) at 16.

[384] Whites Point Panel Report at 33.

dissolved contaminants during extreme climatic events.[385] In the absence of extensive additional data from new and existing test wells, many of the uncertainties about groundwater remain very difficult to address.[386] The panel concluded on this issue that the quarry would have long term negative impact on the yields of wells near the project site. Generally, on the issue of water management and the proponent's mitigation measures, the public and government were not convinced with the proponent's mitigation measures, and therefore, the panel was not convinced to recommend approval.

3. Terrestrial Ecology

During the hearings, intervenors, stakeholders and government agencies were concerned that the quarry would have an unmitigated effect on various animal, bird and plant species in the area if it should proceed. To address this concern, the proponent provided a list of species at risk, that is, species at risk for which the regional occurrence was determined to be possible, likely or common, based on the general distribution of the species. The proponent also planned to do a nest survey of birds before clearing the forest. The proponent further committed to conduct monitoring, at appropriate times, of plant populations that are considered at risk.

However, it was found during the hearing by intervenors that certain species of importance were not included in the proponent's long list. Intervenors also questioned the usefulness of nest survey since adult birds actively disguised nest locations. In assessing

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[385] Joint Panel Report 2007, supra 33.
[386] Joint Panel Report 2007, supra 33.

the proponent's mitigation measures on rare species, the panel considered the principles that frame its review. The panel determined that the proponent EIS has no demonstrated evidence of mitigative measures for biodiversity protection, a condition in the guiding principles. The panel stated that rare species are at the limits of their range, and therefore, need to be protected. The sustainable development principle would suggest preserving indigenous biological diversity because it represents options for future generations. The precautionary principle argues that uncertainty should not be used as a justification for doing nothing to protect valued environmental components.

The panel required the proponent to have incorporated these principles into assessing the project effects on terrestrial ecology. In this context, the Panel believed that the proposed Project's impact on these native species should be considered as an adverse environmental effect. The panel concluded that uncertainty remains about the likelihood of the project not having adverse effects on the terrestrial environment even with the mitigation measures.

4. Marine and Coastal Environment

On the coastal environment, intervenors believed that the Whites Point Quarry project as described in the proponent's EIS, will cause un-mitigatable environmental harm to the social, cultural, physical and the coastal environment of Digby Neck and the

surrounding region.[387] Intervenors therefore suggested that the problems of piece-meal coastal development should be addressed by the development of a provincial integrated coastal management policy, such as those adopted by most other North American jurisdictions. Based on these concerns and suggestions from the public, the panel recommended that Nova Scotia develop and implement a comprehensive coastal zone management policy or plan for the province.[388]

Another issue of considerable concern to local fishers was the possibility of inadvertent transport of unwanted species in the ballast water of large ships between the coastal waters off New Jersey and the water off Digby Neck and the Islands.[389] In order to offset deficiencies with regulating invasive species through ballast waters, the proponent proposed a regular monitoring program over the first five years of the project. This could result in the identification of newly introduced organisms. But, given the vigorous physical environment off Whites Cove, the panel believes that it is more than likely that once introduced, any invasive species would almost immediately be dispersed. In the highly mobile Bay of Fundy waters, monitoring would be a process of recordkeeping rather than prevention against the risk.

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[387] Ecology Action Centre Comments to Joint Panel Regarding White's Point Quarry and Marine Terminal Environmental Impact Statement online http://www.ceaa.gc.ca/B4777C6B-docs/WP-1636.pdf>.

[388] White Point Joint Panel Report Recommendation #2 at 4.

[389] Municipality of Digby Neck comments on Environmental Impact Statement, Whites Point Quarry &Marine Terminal (Digby Neck, Nova Scotia, 2006) online http://www.ceaa.gc.ca/B4777C6B-docs/WP-1636.pdf>.

According to the panel, the project carries a reasonable risk of introducing unwanted diseases or invasive organisms to the Bay of Fundy from ballast water. The ships' destination waters in New Jersey are known to carry organisms that may affect a commercially important species and the mainstay of the regional economy. To this end, the panel concluded that mitigation measures beyond those codified by Transport Canada are not technically or economically feasible to completely contain the risk at this time. Hence, this must be considered as a potential adverse environmental effect.[390]

5.3.6 Cumulative Effects Assessment

During the hearings, intervenors found the proponent's cumulative effects assessment flawed. As such, they recommended that the proponent make a greater effort to assess cumulative impacts relating to invasive species if the project were to proceed.

The panel found that the proponent's cumulative effects assessment was too narrowly focused and did not consider the development of adjacent properties. The panel believes that the project is likely to induce further aggregate extraction activities in the region. To this end, the panel required the proponent to submit a revised analysis of its cumulative effects assessment, which it did. Nonetheless, the panel found the revised analysis incomplete and narrow. Based on this, the it concluded that the proponent's analysis of cumulative effects did not follow the EIS Guidelines.

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[390] Whites Point Panel Report 2007 at 59.

It is significant to note that the panel incorporated most of the suggestions and concerns raised by the public and government agencies in making their recommendations regarding the project's effect on the environment. They found the proponent's EIS to be inadequate on almost every single issue raised by the public on the project effect on the physical environment. The panel addressed intervenor concerns by indicating how the proponent should have addressed them. Unfortunately, the panel consistently found that the proponent did not address those concerns adequately, and in some cases, completely ignored some of them.

The willingness of the panel to hold the proponent to the principles in the EIS guidelines, which included the need to consider public concerns and community values in the EA process, was a result of its independence. Though the proponent prepared the EIS, it did not have influence in the public consultation process. In fact, the public subjected the proponent's EIS to critical scrutiny, while the EA process was under the control of the panel. As a result, the public had greater influence on the decisions taken by the panel. Intervenors and the panel persistently found information gaps related to issues raised under the environment in the proponent's EIS. This is troubling because the fundamental duty of the proponent, among others, is to provide the panel with adequate information to be able to make their decision.[391] If the project proceeded, this would have serious effects on the panel decisions since these information gaps were not filled. The panel decided to

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[391] Doelle Meinhard. "The Role of EA in Achieving a Sustainable Energy Future in Canada: A Case Study of the Lower Churchill Panel Review" Paper Presented at Journal of Environmental Law and Practice Conference May 2012 available online at Electronic copy available at: http://ssrn.com/abstract=2070708.

adhere to the principles it set for the proponent by applying the precautionary approach to information gaps, including those resulting from unsatisfactory response to information request. It can therefore be concluded that the proponent failed its basic responsibility to adequately provide information to the panel and intervenors in the Whites Point EA process.

While the physical environment was among the key issues raised by the public, the project also presented socio-economic and cultural challenges to the communities in the project area. The next section examines the concerns raised by the public, government agencies and other stakeholders on the effect of the project on the socio-economic and cultural lives and activities of the people in the project area.

5.3.7 Socio-economic Issues

1. Economic Issues

There are socio-economic underpinnings to all changes to the natural environment.[392] Therefore, if for any reason the natural environment is to be altered, it does not only affect the physical and biological surroundings, it affects the social and economic relations among people.[393] It is because of these direct social and economic effects that communities are concerned with new development projects. In this regard, the

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[392] Ron Pushchak & Ann Marie Farrugia-Uhalde, "Social Impact Assessment and High-Level Radioactive Waste Disposal: The Canadian Concept and Aboriginal Responses" in Hanna, Kevin S, Environmental impact assessment: Practice and participation. (Don Mills, Ont.; New York: Oxford University Press, 2005) p.118-144.
[393] Ibid at 118.

public and other stakeholders were concerned about the socio-economic effects of Whites Point Quarry project and, therefore, turned to the EA process for answers.

Generally, the major concerns raised by most of those who opposed the project centered on the negative effects of the project on fishing and tourism, supplemented by farming and forestry. Of these economic activities, fishing and tourism are the mainstay of the economy of Digby Neck, the affected community.[394] The issue of fishing and tourism was of major concern because the commercial activity at Digby Neck, is, and has always been fishing and tourism.[395] Community members who supported the project spoke primarily about the possible introduction of 34 new jobs (skilled and unskilled) into a community where tourism creates more than double that number of jobs.

Despite the obvious concerns raised by intervenors regarding the project adverse effects on tourism, the proponent's EIS suggested that the project effect on whale[396] populations (which attract tourists to the community), from vessel strikes was unknown and that the contribution to that effect from the quarry vessel traffic would be minimal. The proponent also examined the adverse effects on aesthetic aspects of the project but identified none contrary to intervenors assertions.

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[394] Joint Panel Report section 2.3.2. at p.76.

[395] Canada Statement of Defense of Government of Canada in Bilcon v. The Government of Canada (Ottawa: Ontario, 2009).

[396] Whale watching attract tourists to the community which serves as an income generating activity for the people of that community. This also provides jobs and supports the local economy through taxes among others. There was therefore the need not to destroy the Whale population.

Additionally, the proponent evaluated the economic viability of the project on the basis of exporting aggregate from the site over a span of 50 years and indicated that the project is economically viable. However, during the assessment process, intervenors identified factors that could limit access to a portion of the resource contrary to the proponent's assertion. First, the Province of Nova Scotia refused the proponent's initial request to buy the Whites Cove Road, and depending on the size of the road right-of way, avoiding the road allotment would reduce the yield of rock available for extraction. Second, government departments indicated that they may require a 100m buffer around the coast to protect valued plant communities and wetland. Third, the proponent cannot blast without permission of the owners of structures within 800m of a blast site, as per the Pit and Quarry Guidelines.[397]

Considering these limiting factors, and the distribution of homes and cottages around the site and the reluctance of some property owners to grant permission, the proponent's output may have been limited to about 29,000,000 tonnes, contrary to the proponent's estimates. This amount would have allowed 16 years of production rather than 50 years. Juxtaposed that the construction costs amortized over 50 years, against the financial implications of a decline in the resource, the panel could not fathom the real financial implications of the project. The panel concluded that if the accessible resource on the site is less than the 91,000,000 tonnes anticipated in the project description, the economic viability of the project could be in question.

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[397] Whites Point Joint Review Panel Report 2007 at 25.

Overall, the panel considered the economic benefits that the communities stand to gain if the project was to be approved. It was found that community sustainability would be greatly affected and as the sustainable principle indicated, communities must make decisions about the use and commitment of resources while respecting the rights of future generations and other communities to social, economic and environmental health. As far as this principle applies, from the sustainable development point of view, this project was found to be lacking this development ingredient. It is clear from the foregoing that the proponent information regarding the economic prospects of the project were not informed by the facts. This was pointed out by intervenors to the panel during the hearing process. Subsequently, the panel's unfavourable conclusions on this issue were largely informed by intervenor views. This is an indication that intervenors were effective in the EA process.

5.3.8 Socio-cultural and Heritage Issues

As indicated earlier, the consequences of a development project are widely felt, and the changes that occur could be cultural or socio-cultural. An EA, it is argued, is the only opportunity for stakeholders to express their concerns on the effects of a project on their cultural sensibilities.[398] Effects on socio-cultural issues were major concerns in the Whites Point project. This section discusses those concerns and the panel responses and recommendations to address them.

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[398] Supra note 58.

As indicated earlier, the Digby Neck, where the project was to be situated, has some important heritage sites. There were concerns that the quarry would impact negatively on these sites that attract tourists to the place.[399]

Throughout the review process, emotions ran high as people described what they understood their community to be and what they feared they would lose if the project proceeded. These concerns have been well articulated in this comment to the panel:

> Removing the rock we stand on and shipping it away is a violation of our landscape and heritage." "Our society is so full of violence, it is important for there to be non-industrialized places that people can visit to renew their spirits." "The reason that you live in … a small rural community where everybody knows everybody and people are inter-connected is because you live it, it is your breath, it is your life, it is your heritage and it is the heritage of your forefathers." "You want to take our little strip of land, a unique piece of land between two beautiful bays, one and one-half miles wide, and blow it up. What have we, the people in this village, done wrong to get this brought on us twice?[400]

Based on intervenor concerns, the proponent conducted an archaeological assessment in 2002 at the project area but before then, clearing activities were already underway in preparation for the proposed 3.9 hectares quarry.[401] In this regard, community residents suggested that by the time the archaeological study was undertaken, several building foundations had already been destroyed. Much of the site had been cleared and levelled. This means that whatever cultural heritage material and artefact that could be found had already been destroyed.

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[399] White Point Quarry Review Panel Report 2007 at 84.
[400] Joint Panel Report section at p.69.
[401] Ibid at 68.

In response, the panel indicated that based on the evidence presented to it by community historians, the proponent's historical and archaeological studies were incomplete because their documentation of the numbers, locations and tenures of families known to have lived and died at the Cove were inaccurate. The panel concludes that a more comprehensive study may have come to different conclusions on heritage and cultural issues, as opposed to what is contained in the proponent's EIS. Significantly, the local community would experience social and cultural problems that would not be compensated by the projected gains. The project was also likely to erode core values of the communities at Digby Neck which kept the people together for several years.[402] The panel therefore concluded that the proponent could not successfully prove that the overall benefits of the project outweigh the adverse effects on community life and their cultural heritage. The panel's conclusions sum up community sentiments about the project effects on their cultural and heritage values which they feel intimately attached to. It also represents and describes the individual sense of place attachment and the need for EAs to be mindful of the multi-disciplinary issues that would arise and how to deal with them if they come up during any stage of the EA process. The public input was very influential on the panel final conclusions on this issue. This is because it was the sentiments expressed by the public that gave a full picture of the project effects on community values since the proponent's EIS presented inadequate information on the issue.

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[402] See Whites Point Quarry Panel Report 2007.

The important role First Nations play in the EA process cannot be overemphasized.[403] Nonetheless, their inolvment has always been challenging for project proponents and the government. In this regard, the next section examines First Nations involvement in this project to undertstand how their concerns were addressed.

5.3.9 First Nations Involvement and Issues

There is a growing literature on how to respect and address cross cultural perspectives, particularly traditional knowledge, within EA.[404] This issue was of particular concern in the Whites Point EA, situated in the traditional territory of the Mi'kmaq, Bear River First Nation and other First Nations. There were concerns by First Nations that the issues they raised were not adequately addressed by the proponent. Research indicates that Aboriginal communities have hunted and fished along Digby Neck for thousands of years.[405] The Confederacy of Mainland Mi'kmaq (CMM) 2005 report on "Mi'kmaq Use of Oositookum (Digby Neck)" stated that the Mi'kmaq people continue to use the Neck and surrounding waters for traditional purposes. The CMM report identified the Whites Cove property, including the "historic Indian Hill Camp" in

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[403] Berkes Fikret & Berkes Mina Kislalioglu, **"**Collaborative Integrated Management in Canada's North: The Role of Local and Traditional Knowledge and Community-Based Monitoring" (2007) 35 Coastal Management 143.

[404]Rockloff F.Susan & Lockie Stewart, "Participatory Tools for Coastal Zone Management: Use of Stakeholder Analysis and Social Mapping in Australia" (2004) 10 Journal of Coastal Conservation 81; also see Patricia Fitzpatrick, A. John Sinclair and Bruce Mitchell Supra note 87 at 13.

[405] The Confederacy of Mainland Mi'kmaq (CMM) 2005 report on "Mi'kmaq Use of Oositookum for Whites Point Environmental Assessment online: CEAA< http://www.ceaa.gc.ca/B4777C6B-docs/WP-1377.pdf>.

the north east where the Mi'kmaq hunted moose and porpoise. It was found also that burial remains could be present on the site.

However, the proponent EIS notes that the Bay of Fundy contains an Aboriginal food fishery, some of which may take place off the proposed project site. Nonetheless, the proponent's partial archaeological survey found no specific evidence of Aboriginal occupation and did not mention the "Indian Hill Camp" identified in the CMM report. The proponent's efforts to consult with Aboriginal communities were not successful, leaving traditional knowledge out of the EIS.[406] The Bear River First Nation told the panel that consultation between governments and the 13 Chiefs of Nova Scotia is required, and that the federal government initiated this process for the project but the provincial government did not.

The panel's response on this issue was that because the project activities would remove most archaeological remains on the site, the proponent would be required to work with the Nova Scotia Museum to document them. While the small settlement at Whites Cove does not hold historic significance on a regional scale, for community members with family history on the site, its loss represents a personal tragedy.[407] The panel further recommended that government should work with Aboriginal communities to assist them in dealing with interested parties to document potential environmental effects of this project and future projects.

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[406] Whites Point Joint Panel Report at 67.
[407] Ibid at 69.

It is clear from the foregoing that the proponent failed to meet the guiding principle of incorporating traditional community knowledge into the EA process. In the Whites Point case study, First Nations saw the panel as the last resort where they could seek redress regarding the lack of cooperation by the proponent. This is a demonstration that intervenors trusted the panel to address their concerns[408] for reasons of its neutrality.

Community involvement in this project marked some of the defining moments in the final decision regarding the need to not recommend the project for approval. The next section discusses these concerns and how the panel responded to them.

5.3.10 Community Involvement and Matters Arising

The panel took judicial notice of the mixed and complicated community involvement in the EA review process. The panel saw signs very early in the Digby Neck and Islands community that the communities were somewhat polarized over the quarry. This was evidenced by lawn signs for and against the project. Also, there was anecdotal evidence presented in the hearings by T-shirts emblazoned with a particular position, and by numerous references to the community schism that emerged around the project proposal. As a result of the strong opposition for the project, a "pro" group became a

[408] John A. Sinclair and Alan P. Diduck (2005) Public involvement in Canadian environmental assessment: enduring challenges and future directions. In: Hanna K (ed) Environmental Impact Assessment: Process and Practice (Toronto, ON, Canada Oxford University Press, 2005) at 58-79.

visible participant in the process only during the hearings, while the opposing group was active from the outset and in large numbers than the pro group.[409]

The actual conduct of the EIS process by the proponent was not without problems. The Community Liaison Committee (CLC), set up as a vehicle for early engaging the public met on fifteen occasions. But the Committee members slowly drifted away because the CLC failed to engage key members of the community who would be affected greatly by the project. While those in favour of the project described its work as successful, those against it said it was dysfunctional.[410] The CLC collapsed as a result of lack of interest in its work due the way it was handling the hearing process.

Subsequent to the collapse (but before the creation of the panel and for more than 30 months prior to the hearings), there were some issues with the modus operandi of CLC consultation process. For example, public involvement was conducted at the proponent's office, on the street, at social events or public presentations by the proponent, or in any number of ad hoc situations.[411] This led to a breakdown in communication between CLC and community members raising issues of trust. The panel heard many concerns about the lack of trust between the proponent and community members that led to continuing fears about the ability of the parties to work together effectively if the project was to proceed.

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[409] Public Hearing Transcripts, White Point Quarry and Marine Terminal Project, (Joint Review Panel, 2007) online CEAA< http://www.ceaa.gc.ca/B4777C6B-docs/WP-1811-013.pdf>.

[410] Whites Joint Review Panel Report 2007 at 88.

[411] Whites Point Joint Review Panel Report 2007 at section 3.2.1.

The panel noted with concern the significant split that occurred in the community between supporters and opponents, with each side accusing the other of intimidation tactics. The panel stated that the proponent should have attempted to mitigate the rift in social cohesion through the use of an effective public participation program. Instead, based on the information available to the panel, the proponent exacerbated the tension in the community by deploying divide and rule tactics.[412] The panel concluded that the project, if approved, would almost certainly change, in a significant manner, local perceptions of community character and identity.[413] It would also produce severe and lasting repercussions that might directly affect social networks and community cohesion, and that would be impossible to mitigate. It thus seems that the community was split in terms of those who want to project and those against it. However, the panel did not have any difficulty in recommending rejection of the project based on its assessment of public concerns and the likely adverse effects on the environment.[414]

The proposal is not consistent with core values and community visions of the future as expressed in documents, by community leaders, and by the majority of community members appearing before the Panel. In the end, the panel concluded that the proponent's public participation activities met the letter but not the spirit of the guidelines.[415]

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[412] Whites Point Joint Review Panel Report 2007 at 70.
[413] Ibid at 71.
[414] Ibid.
[415] Whites Point Joint Panel Report 2007 sections 3.2.1. at 88.

At the end of the process, it appears majority of intervenors were satisfied with the work of the panel and its recommendations because their concerns were seriously considered. Also, intervenors were satisfied that the government decided to not grant approval for the quarry project to proceed. For example, participants said they were very happy with the way the department responded immediately, and consistently listened to their thoughts and issues. They felt well-looked after by the government, and confidently asserted that a number of concerns presented to the department and the panel, could be the knockout for the project.[416]

Mutual learning demonstrates to some extent intervenor understanding of the EA process. In this regard, the next section discusses how intervenors learnt from the EA process in this project.

5.3.11 Mutual Learning

The EA process involves an exchange of information in a two-way communication process. In this regard, it is always expected that there would be mutual learning from this exchange, which facilitates a better understanding of the EA process. This section examines the Whites Point EA in terms of whether participants learnt from the process.

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[416] Quarry Proposal Killed: Victoria Beach Group Welcomes Province's denial of ApplicationThe Chronicle Herald, Thursday, December 9, 2004.

Learning considers the degree to which participants are receptive to different points of view in the EA deliberative process.[417] It also asks whether the institutional framework governing the process allows for two-way communication. It seeks to determine the extent to which the process encourages learning, and whether participants learn from the process and from each other. One participant exemplified this context-learning-EA nexus in the following statement:

> We've come to the point where we feel that we have many things to share through learning circles and we're working on projects of taking pictures and movie-taking in order to get our message out there.[418]

This statement indicates that participants, while making their contribution, spend most of the time listening to other participants, and is an opportunity for them to gauge other peoples' perspectives on various issues raised. This allows participants to learn from other contributors, and this makes the process interactive and deliberative. Another participant noted that:

> I think we need to listen to the modern prophets of today, not only to the well-known ones such as Dr. David Suzuki and Al Gore, but also those who gave presentations here opposing the proposed mega rock quarry and marine terminal.

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[417] Graeme Hayward, Alan Diduck & Bruce Mitchell "Social Learning Outcomes in the Red River Floodway Environmental Assessment" (2007) 9 Environmental Practice 239.

[418] Public Hearing Transcripts, White Point Quarry and Marine Terminal Project, (Joint Review Panel, 2007) online CEAA< http://www.ceaa.gc.ca/B4777C6B-docs/WP-1811-013.pdf>.

The EA process enables participants to learn not only from their fellow participants. It also facilitates their understanding of proponents' and their own attitudes towards environmental protection and business. Referring to the proponent, a participant observed that something she learnt recently about economists is that they are trained to ignore, delete, and obliterate any comment or suggestion that relates to emotion when determining the economic value of a project or business development.[419]

It is quite clear from participants' views that EA activities most associated with learning are those activities that encourage interaction among participants, government officials and proponents. During the review process, the activities that created opportunities for public participation were the hearings where questions are asked. This allowed participants to discuss their concerns in a face-to-face setting and in a frank manner. This finding supports previous research that identifies face-to-face exchange as an important component of mutual learning and deliberative democracy.[420]

5.3.12 The Joint Review Panel Decision after Public Comments: The Rationale for Rejection of the Whites Point Project

Public participation is a central objective of the overall environmental review process, and a means by which the concerns and interests of the public are taken into

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[419] Public Hearing Transcripts, White Point Quarry and Marine Terminal Project, (Joint Review Panel, 2007) online CEAA< http://www.ceaa.gc.ca/B4777C6B-docs/WP-1811-013.pdf>.

[420] Judith E. Innes "Information in communicative planning" (1998) 64 Journal of the American Planning Association 52, also see Thomas Webler, Hans Kastenholhz and Ortwin Renn "Public participation in impact assessment: a social learning perspective" (1995) 15 Environmental Impact Assessment Review 443.

account.[421] Specifically, the EIS Guidelines in the Whites Point project enjoins the panel process to be conducted in a manner that promotes public participation.[422] Within the EIS also, the proponent was required to demonstrate the nature and degree of consultation with residents, Aboriginal people, organizations and other stakeholders likely to be affected by the project. However, in its final report, the panel recommended against approval of the project because, among others, the proponent public consultation activities did not conform to the EIS guidelines. The following were the key reasons given by the panel: significant adverse environmental effects; failure of the project to make a net contribution to sustainable development; inadequate work by the proponent in preparing for the EA process; and an incompatibility between the project and community values.[423] The guiding principles considered by the panel in reaching their conclusions center on public involvement, traditional community knowledge, an ecosystem approach, and the precautionary principle.[424]

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[421] Len Gertler, The Hearing Process in Environmental Impact Assessment: As Concept and as Practised in Ontario In Hanna, Kevin S, Environmental impact assessment: Practice and participation. (Don Mills, Ont.; New York: Oxford University Press, 2005) at 75-92.

[422] Environmental Impact Statement Guidelines for the Review of the Whites Point Quarry and Marine Terminal Project (CEA Registry, 2005) available online CEA Agency <http://www.ceaa.gc.ca/default.asp?lang=En&n=B053F859-1#comp>.

[423] Ibid.

[424] Chris Pacia, Ann Tobinb & Peter Robb, "Reconsidering the Canadian Environmental Impact Assessment Act A place for traditional environmental knowledge" (2002) 22 Environmental Impact Assessment Review 111; Naohiro Nakamura, "An Effective Involvement of Indigenous People in Environmental Impact Assessment: the cultural impact assessment of the Saru River Region, Japan" (2008) 39 Australian Geographer 427 and Ciaran O'faircheallaigh & Tony Corbett, "Indigenous Participation in Environmental Management of Mining Projects: The Role of Negotiated Agreements" (2005) 14 Environmental Politics 629.

The panel, after taking into consideration public comments, found that the benefits of the project would be dispersed and only a select number of local recipients would benefit from it. Local communities would receive some short-term construction jobs, up to 34 long-term operational jobs, some local expenditure, and municipal property taxes. The greatest benefits would fall to the proponent who could acquire a reliable 50-year access to 100 million tonnes of high quality basalt aggregate that could be moved cheaply and easily to market in the US. Based on these considerations, the panel said that the immediate economic gains from the project would inure to the benefit of the proponent and stifle sustainable community economic development, mostly from tourism and fishing. The panel also concluded that the project as "assessed may not be the project as implemented".[425]

The panel subsequently made a number of recommendations (see Table 3 Appendix C), directed at the provincial government and designed to address broader issues identified through the EA process. Key among them is the need for a provincial coastal zone management policy and the application of the provincial EA process to all quarries.

The decision by the panel not to recommend to government for approval of this project was largely informed by intense public pressure and the autonomy of the panel in its decision making. The final outcome also clearly evidence openness to non-state actors and a corresponding non-state influence in the consultation process. Ultimately, one can

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[425] White Point Quarry Review Panel Report 2007 at 83.

say that effective intervenors and an independent panel would make decisions that are acceptable to the majority of stakeholders in an EA process, even if all parties do not agree with some aspects of the process.

5.3.13 Concluding Observation: Whites Point EA

This case analyses the extent to which the review panel and the proponent was responsive to intervenor comments in the Whites Point Joint Review Panel EA under the CEAA. The findings indicate that the panel was not only responsive to most intervenor concerns; their concerns were incorporated into the final recommendations to the federal and provincial governments. However, the proponent was not receptive of intervenor concerns. The study also found that indeed, the final decision taken by the Government of Canada and the provincial government not to approve the project was largely informed by public pressure regarding adverse environmental effects likely to occur if the project was approved. It is rare for panels to reject projects after EAs, but this example and others,[426] indicates that panels could refuse to recommend a project for approval if the adverse effects cannot be mitigated.

The decision in this case study is significant in so many ways. First, it shows that intervenors had an impact in the EA process. Second, the panel took the views of the public seriously; and third, the Governments, as decision-makers, take the panel recommendations seriously. With respect to the findings in this particular process, the public also took the EA process seriously because their concerns were completely

[426] See Kemess North supra note 47.

addressed by the panel which, among others, is to not approve the quarry project. Another observation is that the panel, through its mandate, took ownership of the scope of assessment and direction to the proponent in the form of EIS guidelines. To a large extent, this reduced the influence of the proponent and government officials in the EA process. It was the panel that determined which issues within the scope the proponent should assessed. This reduced or eliminated a situation where the proponent would not have to provide information required by the EIS guidelines.

Significantly, the findings showed that intervenors did not complain that the issues they raised during the hearings were not addressed to their satisfaction by the panel. This is important because one of the barriers to public participation is lack of confidence that the public could influence the final outcome of an EA process.[427]

The final case study, the Sydney Tar Ponds project is considered in the next section. Specifically, the discussion addresses intervenor concerns and the recommendations made by the panel to address them. An overarching issue here, as in the previous case, is the extent to which the panel and proponent was responsive to intervenor comments.

Though these two projects were conducted under the same regulatory framework, the Whites Point case is different from the Sydney Tar Ponds project. This is because

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[427] Hartley N, Wood C. "Public participation in environmental impact assessment – Implementing the Aarhus Convention" (2005) 25 Environ Impact Assess Rev 319; and O'Faircheallaigh, C., "Public participation and environmental impact assessment: Purposes, implications, and lessons for public policy making" (2010) 30 Environ Impact Assess Rev 19.

they were carried out in unique ways and generated conclusions and final recommendations that are unique as to each project. The Whites Point Quarry involved construction which would alter the biophysical shape of the landscape of the environment with their attendant effects. The Tar Ponds concerns the remediation of an already contaminated site to restore the quality of the environment. There are also differences in the final outcomes of these projects: while the panel in the White Point Quarry recommended an outright rejection of that project and its recommendation was accepted by the government, in the Tar Ponds situation, the Panel, after considering all relevant factors, made adverse findings, which were not significant enough to stop the remediation work from proceeding.

5.4 Case Study Four: Sydney Tar Ponds Project

5.4.1 Project Description: The project before public comments

The Sydney Tar Ponds[428] is a remediation project which became necessary because of sustained deposition of liquid and solid waste into the Muggah Creek estuary in Sydney, Nova Scotia, for approximately 100 years. Sydney is located on the east bank of the Sydney River where it discharges into the South Arm of Sydney Harbour. Sydney is the largest urban centre on Cape Breton Island, Nova Scotia. Together with Sydney Mines, North Sydney, New Waterford and Glace Bay, it forms the Industrial Cape Breton region. The Tar Ponds was proposed by the Sydney Tar Pond Agency (STPA) in

[428] Canada, Environmental Assessment Agency, Environmental Assessment of the Sydney Tar Ponds and Coke Ovens Site Project (Joint Review Panel Report, 2006).

an effort to remediate contamination at the site of the old Coke Ovens and in the adjacent Muggah Creek estuary, also known as the Tar Ponds.[429]

The contamination was caused by over many decades of releases of polycyclic aromatic hydrocarbon (PAHs), polychlorinated biphenyl (PCBs) and heavy metals from the steelmaking industry in Sydney, now defunct.[430] According to the EIS statement,[431] there are an estimated 560,000 tonnes of soils on the Coke Ovens contaminated with PAH, petroleum hydrocarbons and metals, and 1,300 tonnes of Coke Brooks sediments contaminated with PAHs. STPA proposes to remove the selected PCB and PAH contaminated sediments from the Tar Ponds and Coke Ovens sites, and to destroy the contaminated sediments in a temporary incinerator that would be located within the Cape Breton Regional Municipality (CBRM). Sediments that remain in the Tar Ponds would be solidified and stabilized in-place. In the case of the Coke Ovens site, selected remaining contaminated soils would be treated in-place using land farming, a form of bioremediation. By way of summary, the following was the remediation plan developed by the proponent and Environment Canada before public consultation on the EIS:

- control of surface and groundwater;
- excavation and incineration of the most contaminated sediments and soils
- removal and destruction of selected contaminants from both sites;
- treatment in-place of selected contaminants at both sites;
- containment of the remaining contaminants at both sites;
- site surface restoration and landscaping at both sites; and

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[429] Ibid.
[430] Ibid.
[431] Environmental Impact Statement: Sydney Tar Ponds and Coke Ovens Cleanup (Sydney Tar Ponds Agency, 2004), available at www.TarPondsCleanup.ca.

- development of long-term monitoring and maintenance plans for both sites.[432]

Long before the formal EA process began, there had been other efforts aimed at developing a workable plan for remediating the Tar Ponds.[433] This culminated in setting up a Joing Action Group (JAG).[434] This final resulted in an environmental assessment of the project and how it would impact on the communities in the project area.

5.4.2 The EA Process

The Sydney Tar Ponds project was initially identified as being subject to a comprehensive study under CEAA. The determination was made under sections 10 and 32 of the Comprehensive Study List Regulations of CEAA. This is because the project involved the proposed construction, decommissioning or abandonment of a facility for the extraction of 200,000 cubic meters per year or more of ground water or an expansion

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[432] Remediation of Sydney Tar Ponds and Coke Ovens Sites, Environmental Impact Statement, Sydney, Nova Scotia, Technical Executive Summary (Sydney Tar Ponds Agency, 2005).

[433] Ibid at 15.

[434] Ibid The JAG was set up in the 1980s to try and develop a workable remediation plan for the Tar Ponds. The JAG was a community-based approach to remediation of the Muggah Creek Watershed. JAG was a partnership supported under a Memorandum of Understanding between community representatives and the three levels of government in 1996. Based on the CCME National Guidelines for Decommissioning of Industrial Sites, JAG conducted numerous projects and studies, and several phases of community consultation. This included public input to the development of community evaluation criteria for the review of remedial options. In 2003, JAG's consultants completed the Remedial Action Evaluation Report (RAER), a comparative review of remediation technologies and approaches. After further consultation, JAG recommended that governments employ removal and destruction technologies in the remediation of the Tar Ponds and Coke Ovens sites.

of such a facility that would result in an increase in production capacity of more than 35 per cent. It was, however, referred to a review panel as a result of the final track decision required for all comprehensive studies initiated after October 31, 2003.[435]

The regulatory and EA process of the STPA project started on June 7, 2005, when the Canadian Environmental Assessment Agency (CEAA) and Nova Scotia Environment and Labour (NSEL) released a draft federal-provincial agreement for a joint panel review of the Sydney Tar Ponds and Coke Ovens Sites Remediation Project.[436] The decision to set up a joint panel review was necessitated by the controversies regarding the adequacy, reliability, and technical feasibility of STPA's proposed remediation strategy for the Coke Ovens site soils and the Tar Ponds sediments.[437] The panel's responsibility was to identify, evaluate and report on the potential environmental effects to the Federal Minister of the Environment and the Nova Scotia Minister of Environment and Labour. In conducting the environmental assessment, the Joint Review panel took into consideration a number of factors, as outlined in the Joint Panel Agreement.[438] The public had 30 days to review and submit comments on the draft agreement.

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[435] For the referral notice and other documents related to the federal assessment, see Canadian Environmental Assessment Agency, Document List: Project Sydney Tar Ponds and Coke Ovens Remediation project (Canadian Environmental Assessment Registry), online< http://www.ceaa.gc.ca/050/document-eng.cfm?document=7969>.

[436] Ibid at 1.1.

[437] G. Fred Lee, PE, DEE and Anne Jones-Lee "Progress towards Remediation of the Sydney Tar Ponds: A Major Canadian PCB/PAH "Superfund" Site" (2006) 14 the Journal of Environmental Cleanup Costs, Technologies & Techniques 111.

[438] Joint Panel Agreement, Agreement Concerning the Establishment of a Joint Review Process for the Sydney Tar Ponds and Coke Ovens Sites Remediation Project Appendix B Sydney Tar Ponds Joint Review Panel Report (2006), the following factors

The EIS draft guidelines were drafted and finalised by the Federal Minister of the Environment and the Nova Scotia Minister of Environment and Labour. The Tar Ponds draft guidelines for the preparation of an EIS were released on June 30, 2005, for public review and comment. There was a 48-day public comment period on the EIS submitted by STPA to the panel. After the public comment period, the proponent responded to the deficiencies the identified within 14 days of the close of the public comment on the EIS. The Panel determined on April 7, 2006, that the EIS, background documents and STPA responses contained sufficient detail to support meaningful discussion at public hearings.

The panel conducted 17 days of public hearings in Sydney, Nova Scotia, in April and May 2006. STPA and all others interested in the remediation of the Coke Ovens site soils and Tar Ponds sediments were provided an opportunity to present reports and testimony to the Joint Review Panel regarding their views on the STPA's proposed approach for remediation of these sites.[439] The Panel heard from 34 registered participants, several of which involved delegations of presenters.

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among others; a)any change, whether positive or negative, that the Project may cause in the Environment, including any change it may cause to a listed wildlife species, its critical habitat or the residence of individuals of that species, as those terms are defined in subsection 2(1) of the Species at Risk Act and, b) any effect on socio-economic conditions, environmental health, physical and cultural heritage, the current use of lands and resources for traditional purposes by aboriginal persons, or on any structure, site or thing including those of historical, archaeological, paleontological or architectural significance and, c) any change to the project that may be caused by the environment, whether any such change or effect occurs within or outside Canada.

[439] G. Fred Lee, PE, DEE and Anne Jones-Lee “Progress towards Remediation of the Sydney Tar Ponds: A Major Canadian PCB/PAH "Superfund" Site” (2006) 14 the Journal of Environmental Cleanup Costs, Technologies & Techniques 111.

The panel concluded its public hearings in May 2006 and submitted its report in July 2006. The panel concluded that the project and the technically and economically feasible means of carrying it out are unlikely to result in significant adverse environmental effects. Their conclusion was conditioned on the implementation of the recommendations specified in the report. The Tar Pond project EIS guidelines enjoined the proponent to involve the public in preparing the EIS. Apart from public involvement in preparing the EIS, they must be granted opportunities to participate in almost all the stages of the EA.

The process followed by the panel in the Tar Ponds was quite standard and similar to the Whites Point panel, and in consonance with panel reviews carried out under CEAA. However, a significant difference between the Tar Ponds and Whites Point is the fact the panel in the Tar Ponds was not involved in drafting the EIS guidelines for the proponent. This is significant, given that the proponent in this project was a government agency. By not giving the mandate to the panel to draft the EIS guidelines, the sense of ownership and, perhaps, the independence of the panel in the EA process were undermined.

The next section reviews the Tar Ponds public consultation process to determine the extent to which the panel and proponent was responsive to intervenor comments. The discussion would also bring out some of the salient differences between the two panel reviews.

5.4.3 Intervenor Concerns and Panel and Proponent Responses

There were many concerns directed to the panel by individuals, ENGOs, government and community organisations during the hearing and comment period in the Tar Ponds project. These concerns were based on the ability of the proponent's EIS to address the likely environmental effects related to the project. While there were many other concerns regarding the project, the most common concern centers on the proposed methods for remediating the Tar Ponds project. The major concern by intervenors which was for the contaminants to be removed and destroyed offsite proposed by the (JAG) was not addressed to the satisfaction of intervenors by the proponent. The section below presents in quantitative form, a brief summary of intervenor categories and concerns.

5.4.4 Summary of Intervenor Concerns

Results from table 4 (see appendix D), indicates that majority of the concerns in the Sydney Tar Ponds project centered on the proposed approaches selected by the proponent for remediation and the health implications presented by these approaches. In this project, there were over 40 issues raised, but based on the criteria set out in chapter 3 of this thesis, 20 concerns were sampled (see Appendix D). Out of this, almost all concerns were fully addressed by the panel recommendations. Two issues were completely addressed by both the panel and the proponent. For the most part, intervenors expressed some opposition to the proponent responses to their concerns.[440] In contrast to

[440] Sydney Tar Ponds Joint Review Pane Report 2006 and also see Table 4 Appendix D.

Whites Point and the other projects reviewed in chapter 4, the Sydney Tar Ponds project had the least number of concerns raised by First Nations. First Nations raised 2 issues; one was fully addressed by the panel, but it has not been possible to determine the status of the other one which centers on the degree of consultation. This is because the panel concluded that consultation with First Nations lies outside its mandate.

ENGOs in this project raised 4 concerns, most of which revolved around the proponent's proposed approaches. Their concerns overlapped, for the most part, with those raised by the general public. Of the 4 concerns, 2 were fully addressed by both the proponent and the panel. The other 2 were partially addressed by the proponent while the panel addressed them through recommendations. When it comes to the public, the study found that 8 issues were raised. As represented in table 4, 5 of these were partially addressed by the proponent and only 3 were fully addressed. However, the panel made recommendations that addressed the 8 issues raised by the public. Most of the issues that were not fully addressed by the proponent centered on the proposed approaches for remediation. The last category of intervenors is government agencies that collectively raised 6 concerns, most of which centered on the health risk likely to be caused by the project during remediation. Out of the 6 issues raised, 5 were fully addressed by the panel and the rest were partially addressed by the proponent, and only 1 was partially addressed by the panel. This issue concerns the proponent's proposed measures to deal with project effect on air quality.

The next section discusses the intervenor concerns in detail as they relate broadly to environmental, socio-economic and cultural heritage issues. The panel and the proponent's responses are also discussed.

5.4.5 Discussion of Concerns

5.4.5.1 Environmental Issues

1. The proponent proposed approaches

There was a huge outcry by intervenors regarding the proponent's proposed approaches which involved excavation and incineration of the most contaminated sediments and soils of the Tar Ponds. While some participants suggested total encapsulation and containment in-place without incineration, majority of intervenors wanted total removal and destruction of some of the PCB contaminated sediments offsite.[441] Based on this, the panel stated that with appropriate technology selection and stringent regulation, incineration could be carried out without significant adverse environmental effects. However, the panel:[442]

> Heard and takes seriously the widespread community concerns about the use of incineration and agrees that a measure of stress and anxiety would likely result. Therefore, relying on STPA's definition of health,[443] removal of incineration from the Project will prevent a source of stress within the community and thereby will be beneficial to health.

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[441] Public comment on the EIS, Joint Review Panel 2006 onlinewww.stpco-review.ca.>.

[442] Joint Review Panel Report 2006.

[443] STPA defined health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

As a result, the panel recommended that the initially proposed plans to incinerate a portion of the sediment more heavily contaminated with PCBs be removed. This approach was subsequently dropped by the proponent.

However, intervenors remained concerned that the proponent only removed the incineration aspect but did not remove its primary approach which is containment or encapsulation of the Tar Ponds sediments with solidification/stabilization as the secondary approach. The proponent claimed that the Tar Ponds sediments remediation approach, that is solidification/stabilization, would result in a "walk-away" solution that would require little or no further intervention after 25 years.[444]

In view of these concerns, intervenors asked an expert in the field of remediation of contaminated sites to review STPA's Environmental Impact Statement (EIS) for the proposed remediation project.[445] The review focused on the proposed full containment or solidification/stabilization (S/S), without incineration. After the review, the expert concluded that based on their experience and the literature:

> STPA's proposed solidification/stabilization, capping, and flow diversion approach was not reliable for immobilization/containment of the pollutants in the Tar Ponds sediments. Furthermore, rather than developing a "walk-away"

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[444] Remediation of Sydney Tar Ponds and Coke Ovens Sites Environmental Impact Statement Sydney, Nova Scotia Technical Executive Summary (Dartmouth, 2005).

[445] G. Fred Lee, PE, DEE & Anne Jones-Lee "Progress towards Remediation of the Sydney Tar Ponds: A Major Canadian PCB/PAH "Superfund" Site" (2006) 14 the Journal of Environmental Cleanup Costs, Technologies & Techniques 113.

> approach as claimed by the proponent, considerable intervention would be needed to adequately monitor and maintain the S/S-treated sediments and the flow diversion.[446]

In response, the proponent asserted being confident that the S/S process can change the physical characteristics of the waste.

The panel stated that both the community and STPA placed great importance on the use of proven technologies. Nonetheless, the panel was not convinced that the solidification/stabilization technology was proven for use in the Tar Ponds context—that is, to be applied to organic contaminants in organically enriched sediments in an estuary with potential groundwater and seawater influx. The panel understood that the primary remediation technology to be applied to the Tar Ponds is containment, with the use of solidification/stabilization as a secondary approach. Nevertheless, the panel thinks further pilot studies had to be carried out and specific targets reached before this technology could be approved for use in the Project.

Participants challenged the proponent also as to whether leaving all the PCBs in-place would meet the requirements of the Stockholm Convention on Persistent Organic Pollutants[447] and *Canada's Toxic Substance Management Policy.*[448] The panel was

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[446] Ibid.

[447] UNStockholm Convention on Persistent Organic Pollutants UN Doc POPS (2001) available at http://chm.pops.int/Convention/ConventionText/tabid/2232/Default.aspx. The Convention which Canada is party mandates members to design measures to dispose POPS in a manner that their content is destroyed or irreversibly transformed so that they do not exhibit the characteristics of Organic Pollutants. Members should endeavour to develop appropriate strategies for identifying sites contaminated by chemicals and if

informed that the use of technologies, incineration and containment are permissible under the two laws.

But the panel indicated that under the terms of the Toxic Substances Management Policy, the federal government is obliged to weigh the relative merits of choosing to remove and destroy PCBs versus managing them in-place. After taking into account presentations from the public and government agencies, the panel made the following conclusion:[449]

> The Panel acknowledges that it heard directly from the federal department responsible for providing technical and scientific advice on the federal Toxic Substances Management Policy, who found no problem with the Project's consistency with the policy. Nevertheless, the Panel respectfully disagrees with this interpretation and concludes that the Project must be consistent with the Toxic Substances Management Policy and that STPA has not yet demonstrated the required consistency.

Finally, the panel recommended that Environment Canada, with the assistance of Health Canada, provide advice to ensure the project would comply fully with the Toxic Substances Management Policy. The federal departments should ensure that an analysis of risks, costs and benefits was completed of the North Pond PCB removal alternative. The analysis should give appropriate consideration to social issues. The results of the analysis should determine if the PCBs in the North Pond hot spot are to be removed, or if

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remediation of those sites is undertaken it shall be performed in an environmentally sound manner.

[448] Canada's Toxic Substance Management Policy Environment Canada (Ottawa: Ontario, 1995) available at http://www.ec.gc.ca/toxics/en/policy.cfm 2004.

[449] Joint Review Panel Report 2006 at 26.

minimizing PCB exposure and the site's potential risks are to be addressed by way of the Full Containment, No Incineration project alternative. The panel recommended that Public Workers and Government Services Canada (PWGSC) and Nova Scotia Environment and Labour (NSEL) require STPA to conduct a similar analysis of South Pond PCBs.[450]The panel recommendation was accepted by both the Government of Canada and Government of Nova Scotia.[451]

The issue of incineration as a proposed approach by the proponent was the most contentious in the public consultation process. Therefore, the decision by the proponent to remove incineration from the proposed approaches is significant because; first it is an indication that intervenors had an impact in the process. Secondly, that the panel took the views of the public seriously, and thirdly, that the Governments, as decision-makers, took the panel recommendations seriously. It is, however, unclear whether the public took the EA process and the proponent on this particular issue seriously, since only one aspect of their demand was met, namely, the proponent's decision to drop the incineration aspect while maintaining the option of full containment.

For example, during the public hearings, the Sierra Club of Canada stated in its closing remarks that: "…in our view, the environmental concerns about the methodologies proposed by the Tar Ponds Agency raised in this hearing are so significant

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[450] Sydney Tar Ponds and Coke Ovens Remediation project, Joint Review Penal Recommendations and Implementation Synopsis (NS, 2009) online< http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=8989>. #3 at 36.

[451] Ibid.

that further technical hearings would be required."[452] Similarly, through the Joint Action Group (JAG)[453] process, the citizens of Sydney said they did not want this approach. They opted for a real clean-up in which the sediments would be removed and actually cleaned, arguing that the technology to do this exists—that it was developed for use in cleaning soils contaminated in Alberta Tar Sands operations.

Experts testified that solidification and stabilization only work in waste sites where the sediments are capable of binding to concrete and hardening.[454] The Tar Ponds sediments are about 50% coal. In chemical terms, that is high organic content. There is not an example anywhere in the world of using solidification and stabilization technology on sediments with high organic content such as in the Tar Ponds. The panel was not convinced that the solidification/stabilization technology is proven for use in the Tar Ponds context--that is to be applied to organic contaminants in organically rich sediments in an estuary with potential groundwater and seawater influx.

It is also important to note that the proponent's proposed approaches would require serious monitoring to ensure that they do not impact adversely on air quality, property values and general human health in the community. And concerns were

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[452] Tar Ponds Panel Report 2006 at 12.

[453] The Joint Action Group (JAG) was set up to adopt a community-based approach to study alternatives to the project. After tens of work, in 2003, JAG completed a comparative Remedial Action Evaluation Report (RAER) based on a review of remediation technologies and approaches. From the studies, JAG recommended that governments employ removal and destruction technologies to remediate the Tar Ponds and Coke Ovens.

[454] G. Fred Lee, PE and DEE Comment on Remediation of Sydney Tar Ponds and Coke Ovens Sites Environmental Impact Statement, Sydney, Nova Scotia (G. Fred Lee & Associates, El Macero, California, 2006).

expressed about the inadequacies surrounding the proponent's monitoring programme, especially as it relates to air quality.

Despite the opposing views from the public and the panel recommendations that the project should not proceed until the proponent could prove the technology could work, the project was approved. Unsurprisingly, some intervenors described the Tar Ponds EA process as a cover-up not a cleanup.[455] Elizabeth May, the federal leader of the Green Party, reportedly offered that view of the process.[456] It would thus seen that on this particular issue, the panel's powers were curtailed to just making recommendations, while the major decision regarding approval rested with government decision makers. This is where panel reviews and comprehensive studies converge, in that the duty to decide the cause of action rests with government decision-makers.

Judging by the panel recommendations, it is quite clear that the information provided by the proponent did not adequately address concerns raised by intervenors on the proposed remediation approaches. But the panel could not deal with the adequacy of the proponent approaches comprehensively. This is a setback for the EA process because if at the hearing stage there is insufficient information in the EIS for the public and the panel to subject it to scrutiny, it is highly unlikely that panel recommendations would be given any serious attention by the proponent after the process. The proponent main

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[455] Connie Vitello, The Sydney Tar Ponds Cleanup Project Understanding the new stabilization plan for Canada's most contaminated industrial site (2007) Hamza Magazine online< www.hazmatmag.com>.

[456] Ibid.

reason for not being receptive to intervenor concern on this issue was the cost of using technology that removes and destroys contaminants offsite.[457]

2. Air Quality and Human Health Risk Concerns

Another environment related issue raised by intervenors during the public consultation centered on the project effect on air quality and human health. To address this concern, the proponent conducted a series of tests on effects on air quality, including green house gas emissions, and on human health. The proponent also compared data collected from the monitoring program in 2002 and 2003 with annual data from other Canadian air quality monitoring locations, and concluded that the annual averages of the parameters measured in Sydney appear to fall within the values demonstrated at other urban Canadian stations. STPA described air quality in the project area as very good, compared to major cities in Canada.

According to the EIS, comparing the entire project's greenhouse gas emissions to regional, provincial and national emissions, the project is not likely to generate high or medium volumes of emissions and that the project is unlikely to disturb existing carbon sinks. The proponent, however, recognized that remedial activities at the Tar Ponds and Coke Ovens site would potentially expose workers to harmful airborne substances. However, its occupational health and safety requirements, coupled with the project's own requirements for safety plans, would provide appropriate mitigation.

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[457] Tar Ponds Joint Review Panel Report 2006 at 16.

Even so, intervenors expressed mixed feelings about the proponent's mitigative measures to prevent air contamination. While some intervenors were generally comfortable with the air mitigative measures outlined in the EIS, others were not fully satisfied with that information. In fact, some government agencies and the public remained unconvinced that air quality concerns were fully addressed by the proponent.

In view of this, the panel recommended that before the project would be approved, NSEL and PWGSC had to ask STPA to calculate the total expected ambient air concentrations due to the combination of all project-related emission sources and the existing pollutant levels in the local air shed. NSEL and PWGSC should require STPA to re-evaluate the risk assessments and incorporate the results into the project design and applications for regulatory approvals.[458] The federal and provincial governments agreed with the panel recommendation and required the proponent to re-evaluate the analysis conducted on air quality in the EIS, including the cumulative effects, as part of the detailed design process.

Intervenors also questioned the adequacy of the human health risk assessment methodology, the possibility of malfunction resulting in accidental release of uncontrolled gases, lack of epidemiological studies, and inadequate monitoring for dioxins and furans. Intervenors subsequently demanded that the proponent acquire technology that would enable continuous monitoring of accidents.

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[458] Sydney Tar Ponds and Coke Ovens Remediation project, Joint Review Penal Recommendations and Implementation Synopsis (NS, 2009) online< http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=8989>. Recommendation #4 at 4.

Responding to concerns about continuous monitoring of dioxin emissions, STPA pointed out that the technologies referred to by the intervenors were not up to standard. Additionally, while the technology could provide useful information and reassurance for the public, it could not analyze at a detection level low enough to satisfy Canadian federal regulators. STPA however, undertook to look at the technology referred to by the intervenors.

On this issue, the panel recommended that:

- NSEL and PWGSC require STPA to calculate the total expected ambient air concentrations due to the combination of all Project-related emission sources and the existing pollutant levels in the local air shed.
- NSEL and PWGSC require STPA, as part of a pilot in-situ study of the solidification / stabilization process to evaluate the potential for air-borne emissions and to implement appropriate mitigation measures and integrate these measures within the Project design.
- NSEL and PWGSC require STPA (with the appropriate involvement of Environment Canada, Health Canada, the Medical Officer of Health, the Cape Breton District Health Authority, and the Project Community Liaison Committee) to design an Air Monitoring and Follow-up Program for the Project.[459]

3. Water Quality: Ground and Surface water

Another major concern raised by government agencies and the public had to do with project effect on water quality. On its part, the public expressed concern about the effects of emissions on the quality of water on the various lakes which are used to supplement water supply in the communities in the project area.

[459] Ibid, Recommendations # 4, 5 & 6.

Responding to this issue, the proponent proposed to address ground and surface water remediation primarily through water diversion and the removal or treatment of contaminant sources, and by diverting watercourses away from areas of contamination. The proponent would also protect downstream water quality in the project area from further degradation by treating waste water discharges and controlling runoff.[460] Discharge criteria would be based on previously developed site-specific surface water quality criteria and compliance requirements under the Fisheries Act.

After considering public comments on this issue, the panel concluded that because no interactions between operations and groundwater are predicted, STPA foresees no residual environmental effects. The panel agreed in relation to contamination, but was less confident about the impact upon well water supplies particularly at the site. The panel recommended close monitoring.

It also recommended that prior to providing funds or issuing approvals to proceed with solidification/stabilization, NSEL and PWGSC require STPA to:

- Incorporate hydro-geological modeling results into the final design of the groundwater and surface water control measures and the monitoring network;
- Assess potential hydrostatic mounding that may be generated when groundwater flow encounters cut-off walls and address the impact of mounding, if required;
- Define and model the flow pattern of both groundwater intrusion from the Coke Oven site and infiltration of seawater from the harbour to identify the amount of water that could collect under the monolith, including seasonal changes; and

[460] Tar Joint Review Panel Report 2006 at 51.

- NSEL and PWGSC require STPA to develop a detailed groundwater-monitoring program for the various Project areas, including the intermediate and deeper bedrock zones.[461]

These recommendations were agreed upon by the Government of Canada and Nova Scotia.They committed to develop a detailed groundwater-monitoring program for all project elements potentially impacting groundwater resources. This would include detailed rationale for the employment and expected efficacy of monitoring wells in relation to the detection of the penetration of contaminated groundwater from all sources through the cap.

It is important to indicate that Government of Canada and Nova Scotia, by agreeing without objection to any of the panel recommendations showed that the panel recommendations had an impact in the EA process on this particular concern. Those recommendations were largely informed by the concerns expressed by intervenors. But it remains to be seen whether they would be fully implemented. This is because the governments may have agreed with them to approve the project, knowing that the ultimate implementation of those recommendations rest with them.

4. Accidents and Malfunctions

Another contentious issue that came up during the hearing was how the proponent would deal with accidents and malfunctions. Intervenors asked the proponent to provide

[461] Penal Recommendations #s 7-10 and the two governments' responses to the recommendations.

adequate information and details regarding methods to address malfunctions, spills and accidents in the Environmental Management Plan and Environmental Protection Plans.

STPA concluded that all of the identified malfunction and accident scenarios are of short duration, affecting only a small geographic area. Thus, with identified management measures in place, malfunctions and accidents related to remedial activities would be expected to be rare events. The consequences would be short-term and subject to immediate cleanup and corrective measures, if required.

In its conclusion and recommendation on this issue, the panel considered the public's concern with potential failure or remedial measures and addressed these matters as design issues rather than accidents or malfunctions. The panel thought that some of its other recommendations would provide Environment Canada with the opportunity to participate in the development of project planning documents relating to accidents and malfunctions. Intervenors were, however, not confident that proponent's proposed measures on this issue were adequate, and neither did the panel recommendation fully address this concern.

Generally, intervenors' major concern in the foregoing was the proponent's proposed remediation approaches. As indicated earlier, the proponent and the panel fully addressed one aspect of the issue, but the proponent did not at all address the other, though the panel made some recommendations. It thus means that this outcome did not completely satisfy intervenors.

Another aspect of the project that concerned the public had to do with its socio-economic impacts on local communities, individuals and organisations. The next section discusses intervenor comments and recommendations made to address them.

5.4.6 Socio-economic Issues

1. Economic Issues

The major public concern in the area of economic impact related to equitable access to employment for minority groups, such as African Nova Scotians,women and First Nations people. As to economic opportunities, the proponent's EIS indicates that the project would create numerous jobs for the people of Cape Breton and the province during construction, operation and decommissioning. For example, the proponent estimated that direct labour for the project would create between 380 and 435 years of full-time employment, including technical and trade related positions over the eight-year construction period. Most importantly, the proponent intended to source labour locally first, where qualified individuals are available, and suggested that "special measures" (which were not specified) may need to be considered to ensure employment equity.

The panel endorsed the Province's request that STPA prepare a comprehensive economic benefits plan, similar to those prepared in the offshore oil and gas sector.

It recommended that:[462]

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[462] Tar Pond Panel Recommendation supra # 33, 34 and 35.

- First, the proponent should be required by NSEL and PWGSC to develop a comprehensive economic benefits strategy to ensure that economic benefits and employment accrue locally to the greatest extent possible,
- Second, carry out a gender analysis as part of their forthcoming labour capacity study, and work with local women's organizations, business organizations and education and training institutions to develop a women's employment strategy to promote and facilitate the participation of women in the non-traditional trades and technologies required by the Project; and
- Finally, the proponent should consult with the Cape Breton Black Employment Partnership Committee, to develop equity policies and training and outreach programs to promote and facilitate the training and employment of African Nova Scotians on the remediation Project, and should monitor the results throughout the life of the Project. The strategy should include a monitoring and reporting program to track local business and labour participation in the Project.

With regards to the concerns raised about employment equity, both the federal and provincial governments agreed in principle with the panel recommendation. This is because the principles of equity and diversity are basic tenets of federal government employment policy. The Government of Nova Scotia stands by the principles of equity and diversity that are the basic foundations of its employment policy. The proponent, in administering the day-to-day project activities, including hiring, is required to do so in a manner consistent with the intent of this policy. There were no adverse comments from the intervenors on the proponent's measures on addressing the jobs concerns. This is one of the issues that the proponent proposed measures seemed to have found favour with intervenors perhaps because they were convinced of the job potential of the project.

2. Social Issues: Future Use of the Remediated Site

There were also concerns about the future of the remediated site. On this, the panel heard criticisms of the lack of information in the EIS on achieving sustainable future uses. The EIS was seen as mainly focused on the details of how the project would meet its first objective of reducing ecological and human health risks. It was pointed out that during the Joint Action Group (JAG) process, the community put strong emphasis on the importance of maximizing long-term benefits, but the technology selection process did not examine how different levels of remediation could contribute to reaching this goal. Remediation plans were generally guided by land use plans or future use objectives. Some people felt that this step had been omitted to the detriment of the Project.

On this issue, the Panel recommended that:

> the proponent in collaboration with CBRM, develop a future use plan for the remediated Tar Ponds and Coke Ovens site that addresses the requirements of the evolving Port to Port Corridor concept. This should also include the community's interest in active living open space opportunities, the issues and concerns of adjacent neighbourhoods, the practical realities of the remediation process and subsequent monitoring and maintenance. Additionally, any future use plan should draw on examples of best practice in brown field redevelopment wherever possible, and identify the resources necessary for implementation.[463]

The panel recommendation on this issue was accepted by both governments. As part of the conditions for approval, the proponent was required to submit for review and approval by NSEL, a detailed Institutional Control Plan to be implemented for activities on the Tar Ponds and Coke Ovens sites to ensure on a permanent basis, the effectiveness

[463] Penal Recommendation #39.

of remediation and site management measures following construction. It is significant that intervenor comments on this issue were important, as the matter was, otherwise, completely omitted by the proponent. The puzzle is why an important issue, such as future use of the remediated sites, was not initially considered seriously by the proponent until intervenors brought it up during the hearing process. This also raises questions whether the government decision makers wanted the remediation to proceed at all cost, because of the historical antecedence of this project.[464] The whole situation seemed to encourage lack of due diligence on this within the proponent's EIS, though it highlights how effective intervenors were in the EA process. It is the latter's effectiveness that enabled the panel to make their recommendation on the issue. Intervenors' effectiveness in this project stems from their involvement in it long before the formal EA process started. In this way, they were able to influence the final outcome of the EA process. It must be noted that intervenors long involvement in the public review of the project before the panel started its work has its shortcoming. This is because important issues discussed then, may have been missed by the panel because there was literally no panel in place to coordinate the process.

5.4.7 Regulatory Issues

During the hearings, some participants were concerned that there would be significant conflict of interest in regulating and monitoring the remediation process, given

[464] There has been a number failed attempt to remediate the Sydney Tar Ponds contaminated site. Those attempts even resulted in citizens of the area who were most affected by the contamination suing the Nova Scotia Government in a class action case.

that the Province is both the owner of contaminated areas and the regulator of the remediated effort. A specific concern was raised about Transportation and Public Works' joint role as "owner" of the Project and regulator of the transportation of dangerous goods.[465] It was also apparent during the hearings that some questioners were surprised that federal departments, such as Environment Canada and Fisheries and Oceans, did not in fact, have a bigger regulatory role. The uneasiness about the joint responsibilities appeared to be exacerbated by a lack of trust in NSEL's enforcement capabilities, based on their past performance with respect to environmental issues in Sydney.

The panel heard detailed testimony about the failings regarding the municipal solid waste incinerator which was allowed to continue operating for several years out of compliance with its permit, and caused much local concern about air emissions and possible health effects. NSEL did not dispute the facts of this situation, indicating that most of the difficulties stemmed from the changes in feedstock being burned due to new solid waste regulations.

In view of this, the panel recommended that before the project construction began, the federal and provincial governments had to prepare a coordinated regulatory plan for the project and commit to it by signing a Memorandum of Agreement.[466] The panel also recommended that PWGSC should seek assistance from Environment Canada, Health

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[465] Joint Review Panel Report 2006 at 130-131.
[466] Tar Pond Panel Recommendation supra # 47.

Canada, Fisheries and Oceans Canada, and Natural Resources Canada to ensure that mitigation measures and a follow up program are implemented.[467]

Consequently, both governments agreed with the panel recommendation to harmonize regulatory control over project management. The two governments agreed that federal environmental regulatory agencies should work cooperatively with NSEL and other provincial regulatory bodies to develop a formal, comprehensive and coordinated federal-provincial effort in the enforcement of applicable regulations. These responses demonstrate the inadequacy of the proponent's EIS regarding how the project would be monitored by the two governments. The proponent's EIS not being clear on this issue, the responses also showed that intervenors contributions and suggestions, based on their previous experiences with the province's record of managing these types of projects proved beneficial to the panel. In this regard, the panel recommendations were well received by intervenors, though they had concerns with the lack of clarity in the proponent's EIS about this issue.

That intervenors' previous experiences were beneficial in this project stems from the learning outcomes they gained in other situations and projects in their communities. To demonstrate how this experience came through in this project, the following section discusses intervenors' mutual learning in connection with the Tar Ponds project.

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[467] Tar Pond Panel Recommendation supra # 48.

5.4.8 Mutual Learning

Mutual learning asks participants to adopt attitudes of reciprocity and impartiality. They must talk and listen sincerely, and not act strategically.[468] As well, they must engage in sincere attempts to view matters of common concern from mutual perspectives, and, against the background of this multitude of views, to find an independent stance. Specifically, mutual learning explores whether participants learn from each other and from the EA process. In the Tar Ponds project, participating, listening, learning from other participants, and drawing from examples relevant to the project were clearly demonstrated by participants. For example, a participant said this during the comment period:

> from my perspective, the incineration component of the current project is so unacceptable that many and, possibly, the majority of residents (he spoke to) in my area would be willing to see the project not proceed at all if they could be spared the worry and risk of property devaluation that would accompany the operation of the incinerator in their community.[469]

While it is always difficult to identify learning outcomes through the public comments, as opposed to if one were interviewing participants face-to-face, the above statement is a clear indication that participants reflect on the EA process through

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[468] Hans Wiklund, "In search of arenas for democratic deliberation: a Habermasian review of environmental assessment" (2005) 23 Impact Assessment and Project Appraisal 281.

[469] Canada, Environmental Assessment Agency, Environmental Assessment of the Sydney Tar Ponds and Coke Ovens Site Project (Joint Review Panel Report, 2006) at section 1.8 at 10.

learning. This is demonstrated by the fact that participants do not only rely on their own points of view, but seek the views of other participants, and also learn from similar projects. In an opposition to the proponent's proposed method of remediating the Tar Ponds in the EIS, a participant said:

> ....Cape Breton Regional Municipality's (CBRM) own experience with incineration over many years is that both human error and technical failures can result in emissions of various dangerous compounds that are well above accepted standards. For this reason we have stopped burning our solid waste and we are decommissioning our own facility.

Clearly, participants learn and draw from other situations to substantiate their claims during the EA process. It can be said that although the public may be actively involved in project-specific activities (in this case the Tar Ponds project), there is a venue for discussing broader resource management issues that affect these project-specific activities taking lessons from other situations.

It is quite clear from the discussion that the decision to let this project proceed was received with mixed feelings from some participants. However, intervenors were confident that the panel's recommendations were largely informed by their comments and that with the commitment to implementing all the recommemdations by the federal and provincial governments, the likely adverse effects that would be caused by the project could be mitigated.

5.4.9 The Joint Review Panel Decision after Public Comments: The Rationale for Recommending that the Project be Approved

The panel stated in their closing remarks after the public hearings[470] that the community should take the report in the context and spirit in which it was intended —that is, to bring technical and community interests together in a thorough environmental assessment and to provide recommendations to decision-makers eager to see a safe and effective conclusion to the remediation. As stated earlier, the dynamic in this project was unique, in that almost all the stakeholders wanted solutions to an age-old problem—remediating the contaminated sites. For example, Sydney has one of the highest rates of cancer and death in Canada and also leads the nation in the incidence of some other diseases.[471] Residents also have shorter lifespan, according to government studies resulting from the contaminated sites.[472]

On face value, this makes the panel's work a bit easier in terms of their final recommendations regarding the need to approve the project. But it needed to carefully deal with the problems occasioned by the actual remediation, which largely center on health risks due to the proponent's proposed approaches to the work. This was compounded by intervenors' general opposition to the proponent's remediation approaches. After the public comment and hearing periods, in July 2006, the Joint Panel released its final report to governments. It contained 55 recommendations, all pertaining

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[470] Sydney Tar Ponds Joint Panel Report 2006, executive summary.

[471] Tera Camus, Sydney Families File $1billion suit class action suit seeks damages for years of exposure to pollution Halifax Herald Newspaper, Cape Breton Bureau, March 25 2004.

[472] Ibid.

to the primary goal of remediating the Sydney Tar Ponds and Coke Ovens sites in an environmentally responsible manner.[473] In January 2007, the governments of Canada and Nova Scotia responded to the panel's 55 recommendations. They agreed with virtually all of them and committed to ensure their implementation by the Sydney Tar Ponds Agency.[474]

The key modification to the project was the proponent's decision to address the remediation by way of full containment, as opposed to incineration which it originally proposed in the EIS, but which was largely opposed by the public and government agencies. This was significant for intervenors influence on the EA process through panel review though the public wanted removal and destruction of contaminants offsite. The independent panel did not recommend total removal and destruction of contaminants offsite, probably because they thought full containment without incineration would not create health risk after several alternatives were duely considered by the panel.

Following this, the panel recommended that Environment Canada, with the assistance of Health Canada, should provide advice to PWGSC to ensure that the Project fully complies with the Toxic Substances Management Policy. The panel also asked federal departments to ensure that an analysis of risks, costs and benefits of the North Pond PCB removal alternative was completed, and that it should give appropriate consideration to social issues. Finally, the panel recommended that the Nova Scotia

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[473] Joint Review Panel Report 2006.

[474] Tracking Document Review Panel Recommendations and Implementation Synopsis, Sydney Tar Ponds and Coke Ovens Sites Remediation Project (Public Works and Government Services Canada, 2009).

Minister of Environment and Labour approve the project, subject to conditions which address the recommendations in the panel's report. In January 2007, an Environmental Assessment Approval was issued to the proponent by the provincial Minister of the Environment, providing Terms and Conditions of Approval to be followed by the Sydney Tar Ponds Agency throughout the life of the project.[475]

As discussed in Chapter 4, there is a monitoring and follow-up programme in the Sydney Tar Ponds project to ensure that the panel's recommendations are strictly adhered to by the proponent.[476] However, this programme would be designed by the RAs, though it was the panel that made the recommendations. Thus, the success of the follow-up programme would depend on the proponent and the province. Though CEAA requires RAs to design a follow-up programme, there is no provision in CEAA requiring notice and public comment on the results of monitoring or follow-up measures. At best, the RAs are only obliged to advise the public of the results of the measures.[477] This likely meant that the public would not have the opportunity to comment on issues during follow-up. Also, the valuable information and knowledge the public possesses would also be missed in this part of the process. This is notable, given that most recommendations, mitigation measures and commitments are expected to be implemented through the follow-up and monitoring programme.

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[475] Ibid at Recommendation #1 Provincial Project Approval.
[476] CEAA section 38.
[477] See CEAA section 38.

Apart from the regulations requiring implementation of panel's recommendations, the panel strategy to ensure compliance ties funding for the project to a successful implementation of mitigation measures by the proponent. For example, the panel recommended that the project's funding partners implement a performance-based funding process that would see the disbursement of funds being tied to the successful implementation of recommendations and mitigation measures. The difficulty in this is that the major financier of this project is the government, and the proponent is also an agency of government. It is, therefore, not clear how the panel's intention could be achieved, since its powers end with the end of the EA process. This is why the public should be allowed a role at the implementation stage.

5.4.10 Concluding Observations: Sydney Tar Ponds

Significantly, the joint review panel appropriately assessed many of the concerns raised by intervenors despite that intervenors generally opposed most of proponent responses. Out of the 20 issues sampled, almost all were fully addressed by the panel. The panel made 55 recommendations which were accepted by both the Federal and provincial governments. The recommendations were directed at specific issues aimed at addressing intervenor concerns. The panel recommended additional studies to be conducted by the proponent on the effectiveness of the proposed approaches. Overall, therefore, it could be said that the panel was responsive to intervenor comments than the proponent.

The demand of intervenors for total removal and destruction of the most contaminated sediments offsite was not fully addressed by the proponent. This leaves the public wondering whether, the proponent, and government decision makers, seriously considered their views with respect to this specific issue in this project. Indeed, the panel seemed to be reluctant to recommend that removal and destruction of sediments offsite, as suggested by intervenors should be chosen over containment.

It would seem that though intervenors wanted total removal and destruction, they were prepared to take full containment as long as it does not involve incineration. The panel also thought that containment would not pose health risks and so was acceptable. The panel gave due consideration to this issue and even considered proposals from two technology vendors as alternative means of carrying[478] out the project.[479] It came to the conclusion that STPA proposal is economically feasible compared to the technology presented by the vendors. Additionally, managing PCBs in-place meets Canada's obligations under the Stockholm Convention and conforms to *Canada's Toxic Substances* Management Policy. The panel therefore, concluded that removal and destruction of PCBs is not mandatory.[480]

Though surrounding circumstances such as pressure from government decision makers and perhaps, some intervenors, it appears the panel was not influenced by this in considering alternative means of carrying out the project. It thus means that the openness

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[478] CEAA section 16(2)(b).
[479] Sydney Tar Ponds Joint Panel Report 2006 at 22.
[480] Ibid at 23.

and neutrality of the panel is important in deciding alternative means of carrying out this project. The panel was responsive to intervenors by given due consideration to the alternative means of carrying out that the project.

It is quite clear that the independence of the panel was very crucial in its decision-making regarding whether the proponent approaches were adequate in remediating the Tar Ponds. The peculiar circumstances of this project, and perhaps, the likely state influence, did not seem to have played any major role in constraining the panel in making its recommendations.

5.5 Concluding Observations: Whites Point Quarry and Sydney Tar Ponds

The panel in the Whites Point project was more responsive to intervenor comments than the Sydney Tar Ponds project. However, the proponent in the Tar Ponds was slightly more receptive of intervenor comments than the proponent in the Whites Point. In fact, the panel in Whites Point recommended that the project be rejected and this was accepted by the authorities. It is not clear whether if the Tar Ponds panel conducted the process in Whites Point they would have reached the same results. This is because the dynamics in terms of politics and timing could also be different. It does not also means that the Tar Ponds overall decision to let the project proceed would have been a reject by the Whites Point panel. Any attempt to draw conclusions this way would be very speculative because they had different reasons relevant to the nature of the projects.

Nevertheless, the decision in Whites Point is significant because it is rare for panels to recommend a rejection of projects after EAs. Similarly, government decision

makers were more receptive to the panel's recommendations in that project. There are some factors that could have accounted for the outcome in this EA. Though both had independent panels who conducted the EA, there was more public pressure against the Whites Point project than the Tar Ponds. The public pressure made government decision makers less influential, thereby ceding more power to the panel, making them more independent in their decision making. Considering the enormity of public pressure in Whites Point, there may have been significant political cost to challenging the panel's recommendations. It must be noted that intervenors in the Tar Ponds were also effective to ensure there was public pressure, but the major difference lies in the extent of control the panels had in the EA process. In Whites Point, the panel drafted the EIS guidelines for the proponent and directed the proponent on principles to be considered in preparing the EIS. This gave the panel a sense of control and ownership of the process, and reduced the influence of the proponent.

Though the panel was also receptive of the intervenor concerns in Tar Ponds, there a few significant differences between two panels. Unlike the Whites Point, in the Tar Ponds, it was the Minister and the province that drafted the EIS guidelines for the proponent and the panel was only mandated to conduct the process in accordance with their terms of reference. This, in a way, made the proponent more answerable to the Minister than to the panel and intervenors. There were other interacting factors that determined the outcome of the EA in the Tar Ponds project. For example, the public, in principle, were not against the remediation per se, but were against the proposed methods of doing it. The panel did not completely ignore intervenor concerns, but did not also

fully address the inadequacy, feasibility and reliability of the proponent's proposed approaches. As well, though the public was opposed to the proposed approaches, it also exerted pressure for the Tar Ponds to be cleaned-up. The nature of the project, coupled with government interest to see it executed could also not be overlooked by the panel. But it is not clear that the panel was influenced by the government in terms of its final decision despite that the proponent in the Tar Ponds was a government agency, and government was the major financier of the project. Nevertheless, these factors may have indirectly influenced the panel's decision making, and how responsive it was to intervenor comments. The conclusion in this EA demonstrates that interpreting the outcomes of EAs could be hampered by the several interacting factors at play in an EA process.[481]

The above conclusions do not however, take away from the fact that the opening up of the EA process in the two projects from the initially proposed comprehensive study to panel review, has increased the bargaining power of non-state groups, such as the general public and ENGOs. These groups were able to oppose the development of the quarry in Whites Point, and the proposed approaches in Tar Ponds, due largely to the independence of the panels. The decisions in these EAs, therefore, leave some confidence in the EA process, especially regarding review panels. The contention in this study, however, is that while the independence of the process is important, it does not necessarily guarantee desirable outcomes for stakeholders, such as the public and non-

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[481] Neil Craik, Meinhard Doelle and Fred Gale "Governing Information: A Three Dimensional Analysis of Environmental Assessment" (2012) 90 Public Administration 19 at 18.

governmental organisations. This is because of the multi-dimensional nature, and the different interacting factors in the EA process. This is demonstrated, to some degree, in the Tar Ponds EA as reviewed.

CHAPTER VI: ASSESSING THE TWO PROCESS OPTIONS

6.1 Introduction

This final part of the study is presented in three parts. The first part discusses the results of the cases within the context of the literature. It runs through the key findings of the study. The second part discusses the extent to which deliberative democratic principles were incorporated into the public participation process. The final part of the chapter presents the conclusion of the study. The findings in this study are interpreted and discussed based strictly on the four case studies reviewed. The study therefore, would not make broader conclusions in the form of recommendations but would contribute to the EA literature on public participation.

The overarching objective of this study was to investigate which process option (Comprehensive Studies and Review Panels), result in more robust qualitatively better uptake of public or intervenor comments by panels, RAs and proponents in the EA process. It also investigated the extent to which opportunities were created for public participation. The thesis also examined the extent to which deliberative principles were incorporated in the EA process. A qualitative comparative case study was adopted to analyse two comprehensive studies projects, Galore Creek and Mt Milligan and two review panels, Whites Point Quarry and Sydney Tar Ponds projects in consonance with the objectives of the study.

6.2 Summary of Findings

The findings suggest that governments and the panels in the panel reviews were more responsive to intervenor concerns and views than the RAs in the CSs. However, between the two process options, in terms of level of responsiveness by proponents to intervenor views and concerns, proponents in the CSs appeared to be more responsive to intervenor concerns and views than the PRs. On the issue of which process option (CSs or PRs), provided more opportunities for public participation, the findings suggest that there were no significant differences between the two. This is because the entry points for public participation in the CSs were similar to the PRs per the amendments made to CEAA in 2003. Finally, the results suggest that there were slight differences in how Wiklund's four deliberative democratic principles were incorporated in the four cases. The PRs had a slight edge over the CSs in the application of some of the principles.

6.3 Discussion of Findings

6.3.1 Level of Responsiveness

The findings of the study indicate that panels were more responsive to intervenor concerns in the PRs than the CSs cases. Also, governments were more receptive of panel recommendations regarding whether the project should be approved or rejected. The panel was more responsive to intervenor concerns than RAs in CSs because they were willing to seriously consider intervenor concerns and did not necessarily defer intervenor concerns to the proponents. In situations where intervenor concerns were deferred to the proponents, the panel expects reasonable responses to these concerns. The panels ensured

these responses were reasonable by critically analysing the proponent's response to the concerns raised by intervenors. The panel involvement in the public participation activities provided them with more opportunities to have an insider perspective of the concerns of intervenors measured against all the social, environmental and economic consequences of the project. This allows the panel to independently review the proponents' EIS, and in some cases, determined that the proponent did not competently address intervenor concerns in relations to the EIS guidelines. Significantly, the panels had the mandate to reach an overall conclusion regarding whether government should approve or reject the project. This to a large extent gave meaning to the independence of the PRs and the decisions thereof.

For instance, in the Whites Point project, the panel identified a number of significant adverse environmental and economic effects associated with the project that would likely affect community life. The panel indicated that these issues were not adequately addressed by the proponent in the EIS. The panel therefore noted on the opening day of the public hearings that the proponent has not adhered to the guidelines set out in the November 2004 Draft Guidelines.[482] In the case of the Tar Ponds, the panel considered seriously public opposition to the proponent's proposed remediation approaches and recommended for further studies to be done on those approaches if the project were to proceed.

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[482] Whites Point Joint Review Panel Report 2007.

While the panels rely on the proponent EIS in order to make its impact assessment, the panel thus subject this information to critical analysis. In the Whites Point, the panel found that the proponent's EIS was devoid of the minimum acceptable level of science required for it to be able to make any meaningful impact assessment.[483] While public pressure was an important component in the panel decisions, their independence played a major role in their ability to make significant determination. A strong public motivated by the likely adverse impacts of the projects augmented the panels' decision-making process. For example, majority of intervenors in the Whites Point generally opposed the development of the project. In the Tar Ponds, the proponent's proposed approaches were largely opposed by the intervenors. It was therefore not difficult for the panels to recommend to government regarding whether the projects should proceed or be denied approval. These findings are largely attributed to the legislation that makes the PRs public participation process more independent of federal authorities. The independence of the panel also allowed non-state actors to exert pressure on both the panel and the proponents on the likely adverse effects of the projects on the environment and human health. This finding is supported by scholars who contend that PRs have the capacity to take decisions independent of proponent and government influence.[484]

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[483] Submissions of the Green Party of Canada to Whites Point Quarry and Marine Terminal Project Joint Review Panel 2007 p.3 online at http://www.ceaa.gc.ca/default.asp?lang=En&n=B4777C6B-1.

[484] Supra at note 67.

The governments were also receptive of the recommendations submitted to them by the panels in the two PRs. For instance, in the Tar Ponds project, there were 55 recommendations in the panel's final report, all of which were accepted by the provincial and federal governments.[485] In the case of Whites Point, the panel recommendations led to the rejection of the project. This appears to be an expression of confidence by the governments in the panels' conduct of the EA process in the two projects. But more importantly, it was quite clear from the public hearing process that the panel had gained the trust of the public especially in the case of Whites Point project. Therefore, approving the project would have meant incurring the anger of the public with its attendant political cost.[486]

It must also be noted that the governments' decision to accept all the panels' recommendations in these projects is significant because despite the panels' independence, the EA process is adivisory to government.[487] The governments could have determined not to accept the overall recommendations of the panels and any specific conditions imposed on the project and this would not have violated any provisons under CEAA. The panel decisions have non-binding effects on government. Furthermore, while some environmental protecting laws incorporate the traditional command and control

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[485] Tracking Document Review Panel Recommendations and Implementation Synopsis, Sydney Tar Ponds and Coke Ovens Sites Remediation Project (Public Works and Government Services Canada, 2009).

[486] Supra note 375.

[487] Supra note 30.

approaches and market based incentives,[488] EA does not employ these approaches. Therefore, the broader objectives set by the panel process at the start of the EAs which must guide the panels' final decisions could be rejected by governments since they are not obligated to accept them. This makes the governments favourable decisions to the panels' recommendations in these two projects very significant to the EA process.

On the other hand, the RAs in the CSs EA process relied on the proponent to address intervenor concerns for the most part. This raises concerns regarding the willingness of the RAs to ensure that intervenor concerns were adequately considered in the EA process considering that the proponent is an interested party in the process. This situation is troubling because, the RAs for the most part indicated that the proponents' mitigation measures and commitments were adequate in addressing intervenor concerns. This means that the RAs did not impose conditions on the proponents apart from those conditions that the RAs required the proponents to implement in order to approve the project. Though the RAs required the proponent to implement these commitments, this self-assessments raises a possible actual or perceived conflicts of interest regarding quality control and the ability of the RAs to enforce and ensure general compliance.[489] This finding further heightened the debate regarding whether entrusting the federal decision-maker who makes the final EA decision and the proponent a non-biased actor in the process to take charge of the entire process benefits the public and the EA process in any meaningful way. One of the possible reasons for this development is the fact that the

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[488] Stewart, R. "A New Generation of Environmental Regulation" (2001) 29 Capital University Law Review 21.

[489] Supra note 65.

RAs ceded more control and power to the proponent in the CSs public consultation process.

Despite these conclusions, the assessment of the proponents' public engagement activities and responses to intervenor concerns independently, indicate that CSs proponents appeared to be more responsive to intervenor concerns than the proponents in the PRs. This finding is counterintuitive considering that the independence of the PRs process purports to among others make the proponent more responsive to intervenor comments. The possible explanation for this finding is that these projects were conducted in different provinces (BC), and covered different subject matter (mining), and generated relatively large public support than the PRs cases. The large public support was as a result of intervenors' believed that the economic potential of these projects, especially in terms of job creation would improve their personal lives and that of their communities. This could have accounted for these differences in the CSs and the PRs. Beyond this; the proponents under the CSs had a much less adversarial relationship with intervenors compared to the PRs. They were more willing to take on suggestions and recommendations by intervenors considering some of the changes made to project design as a result of intervenors comments.[490]

The proponents under CSs are under a legal obligation to make commitments and mitigation measures to implement in response to public concerns. It is possible therefore that the proponents feared that RAs as final decision-makers could impose more

[490] See Appendices A&B for more details on changes made by the proponents as a result of intervenor concerns.

conditions and even decide against approving the project if the proponents' were not seen to be responding to intervenor concerns. This, to some extent may have put pressure on the proponents in the CSs cases to respond to intervenor concerns.

In contrast, the PRs public participation process was more adversarial than the CSs. Particularly; the Whites Point proponent adopted an adversarial approach to engaging intervenors in the EA process.[491] This approach was counterproductive because intervenors in response became more ressistent to whatever responses were offered by the proponent subsequently. What is more significant in this finding is that majority of intervenors did not want the projects to proceed at all or proceed with some conditions. In the case of the Tar Ponds, majority of intervenors would rather live with the contamination if the proponent's proposed approaches considered by intervenors to be more dangerous to their health than the contamination would not be dropped. This condition was partially met by the proponent. In Whites Point, intervenors were generally opposed to the project because of its unmitigatable adverse effects to the local tourism, fishing, farming, and forestry industry. The proponent was not convincing to intervenors and the panel regarding how these concerns would be addressed.

The above discussion indicates that the yardstick used by intervenors to measure the proponents' responses to their concerns goes beyond the EA process to include the peculiar and distinct nature of the PRs projects from the CSs. This means that the PRs projects presented a completely different challenge to the proponents than the challenges

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[491] Supra note 362 at 7.

faced by the proponents in the CSs. It was therefore up to the proponents to justify their proposed activities in light of the prevailing environmental and socio-economic concerns raised by intervenors. The distinctiveness in these projects reaffirms the procedural requirements in the PRs that there must be openness and wider stakeholder consultation. The role of the PRs process in these projects was then to provide an empowering and enabling environment for intervenors to be able to challenge the proponents on these issues. This for the most part was achieved in the PRs because the panels' decisions were accepted by intervenors and government. It is therefore not difficult to speculate that if the CSs proponents were confronted by the challenges in the PRs projects with an independent panel, they could produce results similar to that of the PRs.

6.3.2 Opportunities for Public Engagement

Generally, with regard to opportunities for public participation in the four case studies discussed, there were no significant differences. This is explained by the fact that the regulatory framework created similar entry points for public participation in both the PRs and CSs public consultation process. For example, the 2003 amendments of CEAA mandate the RA to ensure that opportunities are provided in the CS process for the public to participate at four points of the EA process, [492]including participant funding, a similar practice in the PRs. Also, the CSs case studies were characterized by several open houses and oral hearings, a feature that is associated with review panels. The open houses

[492] See CEAA new section 21.1 (1) (a).

and oral hearings allowed participants to present their concerns in a face-to face manner, a process that promote dialogue and deliberation.[493]

In order to reach out to intervenors to inform them of the public review process, the Galore Creek and Mt Milligan projects provided extensive notices in community newspapers and press releases to dialogue with interested parties. It has long been observed that adequate notices is fundamental to fair and meaningful public participation.[494] Furthermore, in the Mt. Milligan and Galore Creek EAs, there were five and eight open houses respectively, held during their application reviews period. This provided the public with many entry points to be engaged by the proponents in the EA process.

Although the unique circumstances surrounding the PRs cases generated wider public interest and involvement before the formal EA process, the actual panel public hearing process was not very different from the CSs. The opportunities created for public participation and the medium through which the public was contacted was very similar to the CSs. However, the major difference regarding the public consulting process lies in the control of the process which is discussed in the next section.

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[493] Julia Abelson et al., "Deliberations about Deliberative Methods: issues in the Design and Evaluation of Public Participation Processes" (2003) 57 Social Science & Medicine 239.

[494] Fitzpatrick, Sinclair and Mitchell 2008 Supra note 87 at 56.

6.3.3 Participation and Control of the EA Process

The findings suggest that incorporating oral hearings and open houses in the CSs gives the process a review panel character, on the face of it. However, behind oral hearings, the RAs have some discretionary powers to determine actual implementation of the public involvement process.[495] As observed earlier, it is quite certain in CEAA the various stages in which the public must be involved in the EA process.[496] However, the actual implementation of the consultation process is still discretionary.[497] For example, the use of hearing in the CSs was based on the discretion of the RAs because CSs usually do not involve hearings under CEAA. Ultimately, the actual control of the EA process remained in the hands of the RAs in these two projects. EA processes, it is contended may function in an open and justificatory manner, but equally they may also operate in much more closed and technocratic manner where there is room for discretion.[498] The legal process allowed the RAs some discretion and also to be able to delegate some aspects of the public participation process to the proponent who is an interested party in the process.

In contrast to the PRs, while the actual control of the EA public review process remains in the hands of the RAs and proponents in the two CSs, in the two PRs the

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[495] Supra note 94.

[496] See CEAA section 21.

[497] The decision regarding whether there should be open houses and oral hearings in the comprehensive study public participation process and the decision as to who should lead the process, the proponent or the RAs is at the discretion of the RAs.

[498] Neil Craik, Meinhard Doelle and Fred Gale "Governing Information: A Three Dimensional Analysis of Environmental Assessment" (2012) 90 Public Administration 19 at 21.

independent panels coordinated the public hearings process. The character of the proponent changed from one who was almost like the referee in the CSs to that of a participant in the two PRs. This is important in the case of the PRs because as stated earlier, the EIS is prepared by the proponents and there is need for an independent evaluation of the EIS. This clearly reflected in the PRs panels final outcomes where the panels recommendations were more in tune with intervenor concerns than the proponents EIS. Intervenors wanted a reject of Whites Point, whereas in Tar Ponds they were not in support of the proponent's remediation approaches. The panels' recommendations and the final outcomes clearly indicate that the panels to a very large extent reflected these concerns and therefore, were very responsive to intervenor concerns.

6.3.4 Deliberative Democracy and the EA Process

The EA requirements seek to create the conditions that make genuine deliberation possible. It is through deliberation that groups may come to reconsider their interests in light of both factual and mutual learning outcomes based on the available information.[499] For example, in the Galore Creek EA, the proponent made contacts with licensed guide outfitters and trapline holders who could be directly affected by the project but were not participating or identified.[500] This involved a number of visits back and forth between the proponent and the affected individuals to deliberate on how to prevent the project effects on their businesses. Another example of deliberation at play was when intervenors raised

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[499] Wiklund, supra note 123.

[500] See Response to Public Comments on Comprehensive Study Report, Proposed Galore Creek Copper-Gold-Silver Mine, (British Columbia, 2007) section 5 at 8 BC online< http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=8858>.

concerns about the Whites Point project effects on whales and other type of fish.[501] The panel deliberated on the issue among themselves (the panel members), and again with intervenors and with expects to determine the gravity of the project effect on whales and other fish in the area. As a result of time constraints, the panel asked other intervenors to come at later date to continue their deliberation on the project effects on whales.[502] This created a continous dialogue among intervenors, and between the panel and intervenors. This suggests that the EAs to a varying degree exemplified the deliberative democractic ideal in the process.[503]

Generally, it is identified that some issues have both positive and negative consequences for public participation: the absence and/or presence of public scoping sessions, technical sessions, the way EA information is managed, and hearings.[504] Also, for an EA to be deliberative, deliberative principles discussed (see chapter 2), must be fairly well observed. In the four projects, these requirements were for the most part, incorporated into the process. In terms of generality, the EAs were open to all interested parties. There were opportunities for participants to submit written comments or be part of the open house hearings. However, the deliberative potential of the assessments seemed to be obscured in the CS projects because legislation establishes minimum requirements, whereas individual cases often go well beyond the minimum, as in these

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[501] See Whites Point Joint Review Hearing Transcripts Volume 13, June 30 2007 at 3082.

[502] Ibid.

[503] See Wiklund supra note 123.

[504] Patricia Fitzpatrick, A. John Sinclair and Bruce Mitchell "Environmental Impact Assessment under the Mackenzie Valley Resource Management Act: Deliberative Democracy in Canada's North? (2008) 42 Environmental Management 1.

cases, where participants juxtaposed the sizes of the projects[505] against the times within which to assess the documents and make meaningful contributions.

For example, there were concerns in the Galore Creek CS process regarding inadequacy of notices posted and the fact that some notices were posted after the comment period was over. Lack of consistency and inadequate notices has been one of the setbacks to the formal notice requirements in the EA process.[506] Also, the medium (notices in community newspapers and press releases etc), used by the authorities to inform members of the public about the EA process are among the passive public information techniques[507] which tend to be not an efficient way of informing the public. This suggests that this principle may have suffered a setback in the CSs process because of this development.

In terms of autonomy, the public was afforded multiple and varied opportunities to be involved in the EA in the four cases. Participation addressed four of the five key provisions for public participation in EA by Sinclair and Diduck: notice, public comment, access to information, and hearings. In terms of power neutrality, the provision of participant funding, a key component of participation[508] helped to ease that administrative barrier that would have prevented many participants from participating. This key

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[505] Hans Wiklund "Democratic Deliberation In Search of Arenas for Democratic Deliberation: A Habermasian Review of Environmental Assessment" (2005) 23 Impact Assessment and Project Appraisal 281.

[506] Hugh J. Benevides "Real Reforms Deferred: Analysis of Recent Amendments to the Canadian Environmental Assessment Act" (2004) 13 J Envtl L Pract ; also see Fitzpatrick, Sinclair and Mitchell 2008 Supra note 87 at 56.

[507] John A. Sinclair and Alan P. Diduck supra.

[508] Supra note 86.

provision is present in both comprehensive study and panel review provisions and it was administratively carried out during the EA processes in all the four case studies used in this research.

It is long established that access to financial resources is a key component for facilitating participation,[509] therefore, steps were taken to remedy power imbalances by the CEA Agency providing participant funding. Nonetheless, in the panel reviews, the amount of participant funding allocated was far more than that of comprehensive studies. For example a total of $100,000 was provided by the Agency to the two CSs while over $350,000 was provided for the two panels. As a result, Whites Point and Tar Ponds panels were able to engage more participants than in Galore Creek and Mt Milligan EAs. It is therefore not difficult to conclude that this principle was compromised in the comprehensive study projects due to institutional discretion.[510]

The findings also showed that there were specific programmes in almost all the case studies to engage aboriginal people. Relatively, proponent led First nations engagement was more effective and receptive of their concerns in the CSs than the PRs cases. In the case of the comprehensive study cases (Galore Creek and Mt Milligan), aboriginal groups were invited to be part of technical teams. For example, the proponent in Mt. Milligan agreed with Nak'azdli and the McLeod Lake Indian Band to fund a

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[509] Sarah Lynn & Peter Wathern "Intervenor funding in environmental assessment processes in Canada" (1991) 6 Project Appraisal 169 and Thomas Webler, Hans Kastenholhz and Ortwin Renn "Public participation in impact assessment: a social learning perspective" (1995) 15 Environmental Impact Assessment Review 443.

[510] The Canadian Environmental Assessment Agency administers the Participant Funding Program which supports individuals, non-profit organizations and Aboriginal groups interested in participating in federal environmental assessment.

training course for First Nations to acquire technical ability to participate in EA data collection related to Archaeological and Environmental Data collection.[511] Also, when the Nak'azdli First Nation expressed concern that its interests were not adequately addressed in the BC EAO process and chose to not participate directly in the BC EAO and CEAA process, the proponent had to engage with them in a parallel process. In an effort to accommodate the wishes of the Nak'azdli First Nation, the proponent agreed to provide significant funding to the Nak'azdli First Nation to pursue its chosen means of expressing its views in connection with the EA process and the project. To achieve this, proponent agreed for the group to develop a document described as an Aboriginal Interest and Use Study (AIUS).[512] The commitment on the part of the proponent was also that Nak'azdli First Nation's comments on work plans, issues identification workshops, and draft Application remain confidential at Nak'azdli's request and should not be made known to the government.[513]

This was an attempt to address the cross-cultural context of EA.[514] However, there were complaints from some aboriginal groups in the comprehensive study case studies that they were not properly engaged in the process by government. First Nations involvement was a challenge in terms of government consultation in both the CSs and the PRs EAs. However, First Nations were more comfortable with the PRs perhaps

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[511] Mount Milligan Gold-Copper Mine Project, Mount Milligan First Nations Consultation Report 2009.

[512] There were no details regarding AIUS and the study therefore, cannot speculate what exactly was contained in this document.

[513] Mount Milligan Gold-Copper Mine Project, Mount Milligan First Nations Consultation Report 2009.

[514] Stephen C. Ellis "Meaningful consideration? A review of traditional knowledge in environmental decision making" (2005) 58 Arctic 66.

because the PR was considered neutral and would address their concerns from their neutral position. However, First Nations consultation was not within the mandate of the panels. This makes First Nations engagement in the EA process a challenge irrespective of the process option.

While it is always difficult to identify learning outcomes through the public comments as oppose to if one were interviewing participants face-to-face, participants had access to and were receptive regarding different perspectives, as illustrated by statements that indicates learning outcomes associated with the panel EAs. There is also an indication that participants were able to adopt attitudes of reciprocity and impartiality, as these are necessary for the types of learning outcomes identified in the results chapters. This is particularly evident when participants usually bring experiences from other projects to substantiate their claims coupled with community engagement, and interaction among organizations. An important finding is that participants were interacting with other EA participants thereby learning not just from the EA process but from other participants. From a practical perspective, the study could not determine quotes on learning outcomes from the CS documents reviewed. However, the participant funding provided to some of the participants of the CSs EA process enabled them to consult experts and that changed their perspective and undertstanding of the issues that emerged in the process. This finds support in other studies that suggest that intervenor funding could be beneficial to

regulators, policy makers and intervenor organisations in the EA process especially in relations to learning outcomes.[515]

The EA process, as exemplified in the four projects, addressed, to varying degrees, each of Wilkund's four principles of deliberative democracy. However, these principles were fully incorporated in the panel reviews in the various stages of the public participation process than the comprehensive studies. This could be explained by the discretion on the part of the CEA Agency to allocate more funds to the panels than the comprehensive studies as indicated earlier. The disparity in allocation of funding could be due to the fact that the public participation process in the panels engaged larger numbers of intervenors over a long period than the comprehensive studies.

While public involvement is important and their inputs often lead to project modification, the common denominator in both process options is the fact that the final decision regarding whether a project would be approved rest with government. In the case of panels, it is the Governor in Council through the Minister of Environment and, for CS, the Minister of Environment. Nonetheless, panel recommendations in the two panels reviewed were very influential in determining the approval and rejection of the Tar Ponds and White Point EAs.

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[515] Supra not 434.

CHAPTER VII: CONCLUSION AND CONTRIBUTION OF THE RESEARCH

7.1 Conclusion

As indicated earlier, EA is a planning tool that helps in making better-informed and sound decisions when a new project is to be undertaken. Public participation has become an important element in this process because it enriches the process with local knowledge and strengthens the democratic and deliberative fabric of society.[516] There are legal provisions in CEAA mandating the authorities to provide opportunities for public engagement in the EA process. In the four cases discussed, there were opportunities for public participation at various stages of the EA process, however, the overarching question is to what extent were governments and proponents receptive to intervenor concerns and views in the EA process.

The results indicate that panels and governments were more responsive to intervenor comments in the PRs than the CSs. The reason is largely due to the independence of the panels in their decision making process in the two PRs. This independence was supported by the fact that the panels were given the mandate to make an overall conclusions regarding whether the projects should proceed or deny approval. Also, the opening up of the EA process in the two projects from the initially proposed comprehensive study to panel review indicate that there was a need for a separate body at arm's length with decision-making authority to conduct the process in these projects. This further strengthened the panels' decision-making ability making them more

[516] Hans Wiklund, supra note 34.

responsible and responsive to intervenor concerns. It can therefore be said that intervenors were also able to oppose the development of the quarry in the Whites Point and the remediation methods in the Tar Ponds projects due largely to the independence of the panel. The decisions in these EAs therefore, have the potential to restore some confidence in the panel process because the findings suggest that with an independent panel and effective intervenors, government decisions on development projects could be influenced.

On the other hand, the findings indicate that the RAs in the CSs cases relied on the proponents to conduct the process. They also based their decisions on the commitments and mitigation measures proposed by the proponents in response to intervenor concerns. In this regard, the RAs were more responsive to the proponents than intervenor concerns and views. This is a direct contrast to the PRs where the panel was more responsive to intervenor concerns.

It is however important to note that proponents in the CSs were found to be more receptive of intervenor concerns than the proponents in the PRs. This finding is counterintuitive but is attributed mainly to the peculiar nature of those projects compared to the PRs projects. It is also because the proponents' public enagement in the CSs was relatively less adversarial compared to the PRs. It is also significant that there were no major differences between the PRs and the CSs when it comes to opportunities for public participation. This is because the entry points for public participation were similar in the four cases. This similarity emanates from the amendments made to CEAA in 2003 but

before the 2010 reforms that created mandatory public participation opportunities in the CSs process.

The EA process in the four cases, addressed, to some extent, each of Wilkund's four principles of deliberative democracy (see chapter 2). Perhaps most important to the deliberative potential of EA revealed in this cases was the presence of technical sessions, which bring interested parties together for a focused discussion of issues. However, these principles were effectively incorporated in the review panel cases than the comprehensive studies. Nevertheless, the findings demonstrate how deliberative democracy provides useful avenues for evaluating EA processes because of its focus on the participatory aspects of the process.[517] As indicated by some scholars, the structures encouraged by deliberative democracy provide ''a concise and general summary of the requirements cited in EIA research for impact assessment to achieve its analytical potential without stunting democratic participation.''[518] The framework put in place by Wiklund's (see chapter 2) is able to capture each of these aspects, especially, when learning associated with participation is taken into consideration.

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[517] John R Parkins & Ross E Mitchell, Public participation as public debate: a deliberative turn in natural resource management (2005) 18 Society and Natural Resources 529.

[518] Walter F Baber, Ecology and democratic governance: toward a deliberative model of environmental politics (2004) 41 The Social Science Journal 331 at 335.

7.2 Implications

The implication of the study is that the level of responsiveness to intervenor concerns is not determined by only the procedural requirements but the substantive goals and the complex interaction factors created by the unique nature of the projects. As a consequent, the EA process irrespective of the process option could be opened and receptive to views of intervenors or closed and dismissive depending on the nature and peculiar circumstances of the project. However, where the distinct nature of projects generates a strong public interest, whether adverse or positive, it demands an EA process that creates an empowering environment for participants to challenge the views of the proponent and government decision-makers. To this far, the PRs in this study exemplified this assertion. This is because the process created conditions such as an independent panel with more open and participatory atmosphere that redistributed power that favour intervenors that were able to challenge proponents who were not very responsive to their concerns.[519]

The implication here is that an independent panel and effective intervenors would certainly result in meaningful consideration of intervenor concerns. Thus, this finding supports other findings that suggest that panels acts as a neutral arbiter and ensures independence of the EA process.[520] The independence of the panel has also limited the influence of the proponents in the process, and this encouraged interaction and active public involvement. These scholars are of the opinion that hearings are the most favoured

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[519] Supra note 30 at 24.
[520] Ibid.

choice because among others, they ensure that public participants who take part in the process are granted access to large documents that are relevant to the EA process, and that they also timeously receive the formal written reasons for the ultimate decision in the project.

The findings that proponents were more responsive to intervenor concerns in the CSs than the proponents in the PRs implies that the end results of the EA process does not necessarily conforms to the EA's regulatory and perhaps, institutional dimension but the surrounding circumstances. In this case it was the economic interest of intervenors that played a major role in determining the relationship between the proponent and intervenors.What is certain however that is the ceding of more power to proponent implies that the process still enjoys overwhelming control by project proponents and the RAs.

7.3 Contribution of the Research

This study contributes to several decades of EA work on public participation done by scholars in Canada. One of the areas in need of attention and to which this research contributes relates to the review of federal EA legislation particularly on public participation. The federal legislation governing the conduct of EA, the CEAA, is said to have made the EA process more effective. However, this legislation has been increasingly criticised for gaps that still need to be filled to make the federal EA process a living exercise. This study broadens our understanding of comprehensive studies and panel reviews and the attitude of those who control the process to public intervenors.

Meaningful public participation has long been recognised as one of the ways to make the EA more accountable to the public. In this regard, there are ongoing research projects to make a case for CEAA to effectively incorporate public engagement at all levels of the process. This is predicated on the fact that effective public engagement could ensure that government reviewers pay sufficient attention to assessment quality and respect for public interest. This work contributed to shaping models of EA that enhance participatory and deliberative democratic principles, while delivering multiple, mutually reinforcing, fairly-distributed and lasting public gains and avoiding significant adverse effects on the environment in the long term public interest.

While these contributions are important, the study is unable to make general conclusions regarding how RAs and panels would conduct other EA process because of the multi-dimensional nature of the process and different interacting factors, including the nature of the project. This is also because some projects must necessarily be assessed by way of comprehensive studies and others through panel reviews. This study therefore opens a channel for further studies on comprehensive studies and review panels to determine how the process responds to public concerns.

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Appendix A Table 1: Galore Creek Intervenors Comments Tracking Table

First Nations Concerns and Issues

Issues	RAs/Gov't Response	Proponent Response/C'tments	Rating	Notes
1 Archaeology and heritage concerns: Urged proponent to protect and preserve heritage resources by conducting orientation programs for all employees and site visitors to ensure that the sites are not contaminated	the commitment is reflected in Appendix F (Table of Proponent's commitments) and Schedule B of the EA Certificate	NovaGold recognizes the importance of heritage resources to British Columbia and the Tahltan and will develop and implement an archaeological chance find procedure to protect archaeological sites and artefacts	Fully addressed (FA)	Intervenors were satisfied that no significant effects negative foreseen, therefore acceptable
2 Acid Rock Drainage: NovaGold should be required to fully prepare for acid mine drainage production - taking into account when and where acid will be produced and establish a plan to prevent acid production and a contingency plan(s) to treat acid mine drainage if it should occur.	the commitment is reflected in Appendix F (Table of Proponent's commitments) and Schedule B of the EA Certificate	Commitment: Will assess the need for water treatment for operations, closure and post closure, including but not limited to, a water treatment plant during permitting as possible mitigation measures to address water quality concerns.	FA	Intervenors were satisfied that no significant effects negative foreseen, therefore acceptable
3 Mine closure: The 'progressive re-vegetation proposed for the soil salvage stockpiles are important, the environmental assessment does not discuss the matter,	the commitment is reflected in Appendix F (Table of Proponent's commitm	Commitment: Will conduct test plots during operations to support appropriate re-vegetation of reclaimed areas. Commitment: Will reclaim	FA	Intervenors were satisfied that no significant effects negative foreseen, therefore acceptable

but species used for these nurse crops should be native species and similar to those planned for reclamation seeding/planting.	ents) and Schedule B of the EA Certificate	using plants that will set the stage for natural succession and the establishment of plant communities that reflect the ecology of the area. Commitment: NovaGold will seed temporary stockpiles appropriately to protect them from erosion and weeds. NovaGold will develop some test plots during mining to help determine what species work best. Commitment: Will equip the dam with instrumentation to monitor geotechnical performance during operations and after closure. Commitment: Will maintain earthmoving equipment near the dam to support inspection, maintenance and repair functions after closure.		
4 First Nations were concerned that project would have adverse effects on wildlife and wildlife	the commitment is reflected in Appendix F (Table of Proponent's commitments) and Schedule	NovaGold will prepare a monitoring program for mountain goats as an important component of the overall Wildlife Mitigation and Monitoring Plan for	PA	First Nations were not completely satisfied that proponent's measures addresses this issue

	B of the EA Certificate	the Project. Commitment: Will follow the approach identified in NovaGold's application for an environmental assessment certificate for avoiding or minimizing disturbances to mountain goats by aircraft and helicopters, pursuant to Wildlife Mitigation and Monitoring Plan. Commitment: Will include pertinent noise monitoring as part of the Wildlife Mitigation and Monitoring Plan Commitment: Will, where reasonably possible, avoid wildlife sensitive periods for construction activities and, where avoidance is not reasonably possible, will minimize the adverse impacts of these activities.		
5 Degree of appropriate consultation with the crown is not up to Tahltan standard	The federal Responsible Authorities note that the Tahltan Central Council will be consulted by federal and provincial government agencies during the permitting stage.	Commitment: As outlined in the Participation Agreement, the parties will maintain effective communications between each other and will develop plans to ensure that Tahltan members remain informed	PA	Interveno rs were not completely satisfied with proponent commitment

6-7 Fish and water Quality The most serious impacts of concern on fish are likely to result from changes in water and quality, rather than the loss of physical habitat	this commitment is included in Appendix F of the Joint Report and Schedule B of the EA Certificate	Commitment: Will work with the Fisheries and Oceans Canada, Transport Canada and Tahltan Central Council, to ensure the design of the diffuser minimizes potential impacts on fisheries resources and waterborne traffic Commitment: Sediment and Erosion Control Plans will be utilized to minimize impacts from any remedial earthworks to protect the aerodrome near the Porcupine River. As part of the Participation Agreement, Tahltan will be consulted regarding all permits for such work. Commitment: NovaGold has committed to monitor the water quality of Galore Creek and the Scud, Iskut and Stikine Rivers during operations and after closure.	FA	Proponent's commitments would prevent significant adverse effects therefore acceptable to intervenors
8 Geotechnical &Geohazard issues: The dam and impoundment should be designed to hold water generated by the Probable Maximum Flood, plus residual	Comment addressed by NovaGold	Commitment: Will implement the mitigation measures proposed to reduce geotechnical risks for the Project, as outlined in NovaGold Canada Inc.'s Application	FA	Intervenors satisfied with proponent's proposed mitigation measures

snowmelt, not only for final closure, but also during the operational life of the mine.		for an environmental assessment certificate. Commitment: Will monitor geohazards at the mine site and along the access road pursuant to permitting requirements. The design criteria provide for a very large volume of available storage within the tailings facility >45 cubic millimetres for most of the operational life of the mine. For most of the lifetime of the mine (Year 2 to closure) the facility will be able to store between 85 to 100 % of the volume associated with a Probable Maximum Flood Commitment: Will develop a long-term maintenance and mitigation strategy for the dam and spillway for both operations and closure, including inspections annually and after significant events such as floods and earthquakes, and dam safety inspections, following Canadian Dam Association guidelines, every five years		
9 Mine		Commitme	FA	Interveno

plane: The concentrate storage facility and treatment plant both should include water storage capacity. The concentrate storage capacity is based on seven-days of production and therefore a comparable storage is necessary for the slurry water. Moreover, the mine should commit to not discharging untreated water to the Iskut River		nts: The final design for the filter plant will incorporate sufficient redundancy and storage capacity to deal with any equipment maintenance and unplanned shutdowns. NovaGold commits to not discharge effluent which does not meet permit standards.		rs were satisfied that the proponent's had committed to meet regulatory standards, therefore, no significant adverse effects are foreseen, therefore, acceptable
10 Monitoring: It is proposed that there should be a modified environmental effects monitoring program will commence at closure and extend into post-closure, until it can be determined that no effects to water quality are occurring		Commitment: NovaGold will undertake post-closure environmental effects monitoring as per permit conditions. Monitoring is expected to continue until regulatory agencies are confident that the site has achieved a stable and predictable condition.	FA	Proponent would meet the requirements of permit conditions, therefore, no significant adverse effects are foreseen
13 Social and cultural effects: It is likely that the Project will contribute to a variety of adverse social and cultural impacts on the traditional structures and communities of the Tahltan, including: increased level of domestic violence; increased gambling and substance (alcohol and drugs) abuse;		Commitment: NovaGold will honour the conditions of the Participation Agreement that provide avenues to mitigate social and cultural impacts of the Project on the Tahltan people.	PA	There would still be some significant adverse effects on social and cultural life despite proponent's commitments. But participation agreement partially address the issue
14-16	EAO	Details	PA	First

Wetlands and Terrestrial Ecosystems: Rare ecosystems -- It is not clear how rare ecosystems will be impacted overall. What is the status of these rare elements on a local perspective? Or a regional perspective? What is the predicted cumulative impact on these sensitive areas? Wetlands: 22% of wetland area is down slope of the road route and 2% of the wetland area is downstream from the proposed Porcupine airstrip. What effect will this have on these wetlands? Will the hydrology change? Will this be included in the monitoring plan? Wildlife: There is too much reliance on using the regional context to assess adverse effect wildlife. It should be looked at within the study area first before relating it to the Land and Resource Management Plan boundary.	notes that this issue was discussed at a meeting on November 23, 2006 and the Tahltan Nation participated in that discussion	pertaining to the effects of the Galore Creek project on rare ecosystems and alpine areas have been provided throughout the CSR While NovaGold will attempt to minimize changes to natural water flows, it is acknowledged that the hydrology of wetlands down slope of development could be altered which in turn may result in a change in the dominant vegetation type. Commitment: A wildlife monitoring program will be completed for review by regulators and, consistent with the Participation Agreement, by TCC representatives. Commitment: Will, prior to disturbance, sample water in wetlands in the vicinity of the mine that were not previously sampled due to dry conditions. Commitment: Will limit disturbance to the vegetation between the access road at the filter plant and the small (no name)		Nations believe there would still be some residual effects and therefore do not proponent's completely address the issue

		lake.		
11 Navigable Waters: the bridge over the stream should be longer and/or higher, to avoid entirely contact with the footprint of the water body. This will eliminate the impacts from riprap and other 'protective' measures.		The proponent commits pursuant to the Navigable Water Protection Act, to ensure unimpeded and safe navigation of navigable waters over which bridge structures are proposed. Commitment: All crossings will be designed to span and not encroach upon the bankful width of the stream. Riprap will be used to protect bridge abutments Commitment: Will ensure that bridges constructed along the access road will have sufficient freeboard to pass anticipated debris flows	FA	Interveners were satisfied that the proponent commits to meet regulatory requirements under Navigable Waters protection Act
12 Pipelines: There should also be a pre-planned pipeline inspection and maintenance program to ensure that the pipelines both maintain integrity. Finally, there should be a contingency plan to ensure a timely, adequate, and complete response to leaks.	EAO notes that NovaGold has committed to equipping the pipelines with leak detection systems to permit rapid detection and response to leaks or ruptures due to erosion of the pipe or damage from external sources such as debris flows.	Commitment: Will equip the pipelines with leak detection systems to permit rapid detection and response to leaks or ruptures due to erosion of the pipe or damage from external sources such as debris flows. Commitments: Will provide shutdown procedures, shutoff valves, a spill response plan and an emergency drainage sump at the low point of the	FA	Interveners were satisfied there would be no significant adverse effects based on proponent's mitigation measures

		slurry pipeline alignment to minimize the extent and consequence of any spillage from the pipeline following a breach to the line. Commitment: A program of regular inspection and maintenance will be implemented and contingency and emergency response plans will be developed. Pursuant to the Participation Agreement, the TCC will have an opportunity to comment on the draft pipeline permit application.		

ENGOs

Issues	RAs Response	Proponent Response/C'tment	Ratings	Notes
1 Accidents and malfunctions: Do not think access road to the mind would be decommissioned after mind closure. Concerned about tailings dam failure	**Condition**: The BC Ministry of Forests and Range is responsible for issuing the Special Use Permit (SUP) for the access road. The SUP is issued under the Forests and Range Practices Act and the Provincial Forest Use Regulation. One of the requirements of the SUP is that the access road be deactivated at the end of the mine life. Tailing dam will be designed and constructed in accordance with Canadian Dam	Will establish an ongoing initiative with the Tahltan Central Council and relevant Canadian and U.S. federal and B.C. and Alaska state government agencies to assess, at a conceptual level, the potential effects of a catastrophic dam failure and develop a program for remediation of those effects. Commitment: Will construct the tailings dam in accordance with the	PA	Interveno rs were NOT completely satisfied because proponent's mitigation measures do not completely address the concern

	Association Dam Safety Guidelines	Canadian Dam Association guidelines (1999) to withstand a 1 in 10,000 year earthquake and the design will consider the effects of an avalanche-induced wave and the ability for the spillway to pass a Probable Maximum Flood.		
2 Surface water quality and Fish and fish habitat: There appears to be no information on what the tolerance levels of organisms is metals in this area. For mitigation measures to identify the tolerance levels of key organisms needs to be determined. Water contamination affect its quality and fish and fish habitat	Proponent to meet the Metal Mining Effluent Regulations (MMER) discharge requirements for permit to granted. Environmental effects monitoring (EEM) will be conducted as required under MMER	Will retain an independent consultant to determine the Probable Maximum Flood snow depth for the Galore Creek basin, the Probable Maximum Flood hydrograph using a defensible snowmelt rate, Will establish and staff a field laboratory for the construction phase, capable of analysing paste and rinse pH, conductivity, total sulphur and carbon and modified neutralization potential. Will employ and train environmental monitors to monitor construction of the access road, mine site facilities and transmission line. Will maintain intensive receiving environment,	PA	Interveno rs were NOT completely satisfied there would be significant adverse effects based on proponent's mitigation measures

		aquatic, fisheries and wildlife monitoring programs, throughout the life of the mine		
3 Terrestrial Ecosystem: Specific concerns include: Wildlife and Wildlife habitat such as Grizzly Bears, Mountain Goat, Trumpeter Swan and Western toad ENGOs raised 9 issues however, several of them have also been addressed by other intervenors, therefore three fit the criteria	Proponent has Committed to develop and implement Wildlife Mitigation and monitoring Plan see C'tments 133 in Appendix F of CSR.	Will develop and implement a Wildlife Mitigation and Monitoring Plan. Will, where reasonably possible, avoid wildlife sensitive periods for construction activities and, where avoidance is not reasonably possible, will minimize the adverse impacts of these activities	PA	Interveno rs were not satisfied with proponent's mitigation measures to fully address the problem

Public, Local government and Community Concerns

Issues	RAs Response	Proponent Response/C'tments	Ratings	Notes
1 The concerns were that increased activity and traffic along the proposed route (Southern Route) and valley, and associated noise, could affect wildlife movements and increase mortality and negative effects on businesses		In view of the concerns expressed by the public, the proponent abandoned the originally proposed Southern Route and adopted the Northern Route to avoid the route passing through a critical salmon and wildlife habitat	FA	Interven ors were satisfied because it was a change to project design and therefore, no significant effects are foreseen
2 Concerns focused mainly on downstream effects from the Galore Creek project and their potential impact on commercial	The RAs responded that NovaGold Inc is a responsible corporate citizen and therefore,	They assured Alaskans that Waters would only be discharged into Galore Creek if they met both the federal Metal Mining Effluent	PA	Interven ors were not satisfied that proponent's mitigation measures completely address this issue

fisheries 3 There were concerns that the proponent may not be committed to the actual implementation of mitigation measures that were presented at the hearings	would apply best management practices throughout construction, operation and closure of the Galore Creek mine.	Regulations and the provincial permitted levels.		
4 Ability of the create jobs and how would benefit 5 Deficiencies in Public Consultation The public raised 18 issues but after tailing, five issues were selected because the rest have been addressed by other intervenors	This issue is outside the scope of the Comprehensive Study for the proposed project.	Will give hiring priority to Tahltan Nation people, residents of northwestern British Columbia residing in a primary community, and then to other Canadians. Will develop a long-term recruitment, employment and training strategy, whose success depends upon cooperation and commitment of the Tahltan Central Council, local communities and provincial and federal governments.	FA for B.C participants but not addressed for Alaskan participants PA	Address for B.C intervenors but not satisfactory for Alaska intervenors
Governme nt Agencies	**RAs Response**	**Proponent Res/C'tments**	**Rating**	**Notes**

1 Air quality analysis is generally thorough and very conservative; more information is sought about the waste incinerator, such as estimated throughput, nature of emissions controls, and estimated emissions	MOE, HC & EC are satisfied with NovaGold's response.	-- Commitment: NovaGold will comply with the law and use the lowest sulphur-content fuel reasonably available on the market. -- Commitment: NovaGold will abide by the Open Burning Smoke Control Regulation during construction -- Commitment: NovaGold will participate with other Port of Stewart users and MOE in a joint air quality monitoring program.	FA	Government agencies were satisfied with proponent's responses
Water Quality: USEPA, SOE, MEMPR& MOE: 2 The mitigation measures do not include any measures that would be taken if water quality is not acceptable for discharge. Water treatment should be included as a possible mitigation measure, during both operations and closure, in the event that water quality in the impoundment exceeds water quality criteria.	USEPA is satisfied with NovaGold's response.	NovaGold is confident that our proposed water management strategy will meet all reasonable regulatory requirements. However, NovaGold will develop a water treatment program if on-going monitoring data suggests that a problem is developing. Commitment: NovaGold will, during the permitting stage, assess water treatment options for operations and post closure, including, but not limited to, a water	FA	Government agencies were satisfied with proponent's responses

		treatment plant		
Wildlife and Wildlife Habitat: 3 Aircraft Noise: In forested areas it is difficult to observe animal behaviour to aircraft due to visibility barriers. Having bears habituated to human disturbance is behaviour that no one wants to strive for. Bears generally killed once habituated to human disturbance	MOE is satisfied with NovaGold's response.	• It is considered unlikely that habituation of grizzly bears to airborne aircraft will result in mortality, either direct or indirect. Will, where reasonably possible, avoid wildlife sensitive periods for construction activities and, where avoidance is not reasonably possible, will minimize the adverse impacts of these activities CM143.	FA	Government agencies were satisfied with proponent's responses
5 Aircraft: TC there is insufficient detail on area of the standard such as lighting, marking, runway slope, approach paths, or possible hazards presented by the terrain. In addition to the above issues there were 16 other issues raised by government agencies but they overlapped with the issues raised by First Nations, ENGOs and the public, therefore, the 5 issues selected here are the ones that have not been covered by the other intervenor groups.	TC is satisfied with NovaGold's response TC is satisfied with NovaGold's response	Commitment: NovaGold will provide the required aerodrome design information to TC during the permitting stage Commitment: NovaGold will provide all the necessary details for TC review and approval prior to construction of the aerodrome.	FA	Government agencies were satisfied with proponent's responses
4 Fish**:** More Creek: DFO	DFO would like to see	NovaGold has investigated the	FA	Government agencies

considers the newly (2006) identified wetland area along More Creek as critical limiting habitat. Infilling should be minimized and it is strongly advised that the road be moved to a different location to avoid encroachment of the clear flow channel	details of this realignment to ensure the avoidance of fish habitat.	potential to realign the road and has determined that the area will be avoided. • Commitment: NovaGold is re-engineering the alignment of the road to avoid critical limiting wetland habitat • NovaGold is currently developing a mitigation plan for the wetland and investigating and preparing a detailed fish habitat compensation plan. • Commitment: NovaGold will prepare a wetlands mitigation plan and a fish habitat compensation plan.		were satisfied with proponent's responses

Total number of issues raised	29
Fully addressed	19
Partially addressed	8
Not sure	2

Appendix B Table 2: Mt Milligan Intervenors Comments Tracking Table

First Nations Concerns and Issues

Issues	RAs Response	Proponent Response/C'tment	Rating	Notes
1 the Concern was that project should Avoid the Rainbow Creek They concern about Water Quality Effect on Rainbow Creek		Two subsequent changes in location of water storage pond to: – avoid Rainbow Creek – avoid Limestone Creek and – reduce footprint Change in location of tailings dam to avoid Rainbow Creek	Fully addressed (FA)	Intervenors were satisfied because it was a change to project design
2 Some First Nations do not believe that current use of lands and resources for traditional purposes by Aboriginal persons have been adequately assessed by the RAs in this comprehensive study report	RAs have considered these impacts and concluded that the proposed project is not likely to result in significant adverse environmental effects, including the result of any change in the environment on the current use of lands and resources for traditional purposes by Aboriginal persons.		PA	Some First Nations were not completely satisfied RAs response
3 Nak'azdli First Nation group strongly object to	The RAs responded that they have engaged the		Not sure	The group was not satisfied with the RAs

the Minister of the Environment making any determination under section 23 of the Canadian Environmental Assessment Act regarding the significance of adverse environmental effects of the project without undertaking section 35 Aboriginal consultation under the Constitution Act.	Nak'azdli and other potentially impacted Aboriginal groups within the environmental assessment process through an exchange of detailed information about the projects impacts on the environment, including the adverse impacts of changes to the environment caused by the project on "current use of lands and resources for traditional purposes by Aboriginal persons". The RAs have considered the submission of reports and comments from Aboriginal groups during the environmental assessment			response
4 Concerns about the use of Cyanide which can cause health risks to humans and fish and contamination of water bodies		Proponent decided to not use cyanide-based processing methods because its polluting effects	FA	Intervenors were satisfied because it was a change to project design
5 Water Quality Effect on Rainbow Creek		Proponent Selected a zero discharge tailings storage facility to not discharge tailings into the Creek	FA	Intervenors were not satisfied that measures completely address water quality effects
6 Concerns raised about dust effects near Fort St. James		Proponent Selected a load-out facility north of FSJ avoid dust to the town of St James	FA	Intervenors were satisfied because it was a change to project design
7		Proponent	PA	Intervenor

Nak'azdli First Nation (NKFN) asked for Changes to draft Environmental and Human Environment Studies Work plan		made changes to Mercury modelling approach and fisheries Local Study Area (LSA) and health management plan		s were not satisfied completely with changes made
8 Degree of appropriate consultation	It is the intent of the RAs to continue consultations with Aboriginal groups	Continue to seek and use traditional knowledge (TK) throughout the life of the project (C'tment) Incorporate TK into the environmental assessment review and permitting process (C'tment)	Partially addressed (PA)	Some were consulted and others were ignored or not properly consulted
9 First Nations were concerned about the project effect on vegetation and plant community		Reclamation activities during mine closure is expected to reverse much of the impact on vegetation and plants Disturbed areas would be re-vegetated using plants native to the area, with particular to those species of cultural significance to First Nations	FA	Intervenors were not satisfied that measures completely address effects on vegetation and plant community
10 The project created territorial boundary conflict among First Nations			Not addressed (NA)	Neither the proponent nor The RAs address the concern
11 Ability of project to create job opportunities		Maximise employee recruitment from Northern B.C, particularly from the communities within regional study area	FA	Intervenors were satisfied with proponent's job commit- ment measures

12 Concerned about destruction of archaeological sites and cultural heritage resources		mark all Project plans/drawings to identify all areas of archaeological and cultural sensitivity that require protection or monitoring	FA	Intervenors were not satisfied that measures completely address effects on archaeological sites and cultural heritage resources
13 Effects of project on social and community life		Potential adverse socio-economic effects associated with mine closure would be addressed	FA	There would still be residual effects on social and community life

ENGOs

Issues	RAs Response	Proponent Response/C'tment	Ratings	Notes
1 Concerned with **alternative assessment**, specific concerns include: Narrow selection of alternatives, Assessment does not consider Lifecycle costs and long-term liability -Wildlife and vegetation impact	The topography of the site and the potential for the wastes from the mine to be acid producing significantly limited feasible alternatives for tailings disposal. --The proponent considered alternative methods of disposal and the selected approach is a form of co-disposal of tailings and waste rock. --Dry and paste tailings alternatives are not feasible for the high mill throughputs (60,000 tonnes per day) that must be maintained to reduce production costs and maintain the economic viability of the project. --The potential use of thickened tailings disposal was considered --The use of tailings		PA	Intervenors were not satisfied completely with proposed measures

	thickeners was rejected as it was not economically feasible and there was no significant improvement in tailings density. concentrations of mercury in fish collected within Meadows Creek and in nearby streams, rivers and lakes were shown to be low			
2 Concerns with **Fisheries and Aquatic Ecosystems – Impacts and Compensation** as described in the CSR. Specific concerns include: Flow reductions in Rainbow Creek: --concerns that flow related fish habitat impacts will extend into Rainbow Creek --Questions the ability of the compensation options to achieve the goal of no net loss for fish habitat	Based on modeling conducted by the proponent, flows within downstream reaches of Rainbow Creek will be reduced but will be within guideline flows required to maintain adequate function of fish habitat. --Flows in Rainbow Creek will be monitored to ensure the minimum flows required to maintain fish habitat function are maintained.		PA	Interveno rs were not satisfied completely with proposed measures
3 Degree of appropriate consultation with First Nations	See response on First Nation table above		PA	First Nations were not satisfied because issue was not fully addressed

Public, Local government and Community Concerns

Issues	RAs Response	Proponent Res/C'tment	Ratings	Notes
1 Surface and ground water: water quality can significantly impact fish and aquatic resources		finalize and implement a construction water management plan that minimizes the potential for the	FA	Interveno rs were satisfied with proponent's water management plan

		release of contaminated water to the environment		
2 Air quality and climate change		Standard Operating Procedures (SOPs) to be developed prior to mine operations, including measures to minimize engine idling	FA	Interveno rs were not completely satisfied with mitigation measures
3 Wildlife and wildlife habitat		Habitat degradation from dust, traffic emissions, equipment operations, hazardous materials spills and fires; interferen ce with wildlife travel corridors, feeding sites, and nesting sites; displacem ent of wildlife; wildlife mortality; implemen t no hunting policy for all workers; and reclaim wildlife habitat at closure	FA	Interveno rs were not completely satisfied because there would still be some significant effects despite proponent's measures
4 General public concerns that current use of lands and resources for traditional purposes by Aboriginal persons have not been adequately assessed by the RAs	RAs have considered these impacts and concluded that the proposed project is not likely to result in significant adverse environmental effects, including the		PA	Not sure if RAs responses address the concern raised by intervenors completely

in this comprehensive study report	result of any change in the environment on the current use of lands and resources for traditional purposes by Aboriginal persons			
5 The current comprehensive study report is evaluating information submitted by the proponent some years ago and is not considering this more up-to-date feasibility study. -- The omission of this new information constitutes a serious inadequacy in the review conducted by the responsible authorities.	Recent Feasibility Update Study which was based on increased estimates of proven and probable reserves and the consideration of additional mine planning, engineering, detailed design and updated project cost estimates was done		PA	Not sure if RAs responses address the concern raised by intervenors completely
6 General Public concerns about tailing impoundment leakage	Groundwater monitoring wells will be located around the perimeter of the tailing storage facility to detect any seepage that moves past the seepage collection system		FA	Intervenors were not completely satisfied with proponent's measures on this issues
Government Agencies	**Proponent Res/Commitment**	**RAs Response**	**Ratings**	**Notes**
Government Agencies' contributions in this were mainly based on the effect of the project on environment Government Agencies raised about 14 issues but 6 were sampled 1 Concerns about project effect on water quality	The proponent response to the 14 issues raised by government agencies were all satisfactory to agencies that raised them Testing and monitoring of the		FA	According to government agencies the issue was satisfactorily addressed by the proponent

	potable water system with appropriate treatment will be carried out to meet the requirements of the Northern Health Authority, which issues the Drinking Water System permits.			
2 Acid generation and metal leaching and its effects on soil and water	The proponent will test the material for acid and metal content prior to any overburden consists of alluvial sands and gravels and glacial till and can be visually identified in the field by particle size and colour. Overburden near the oxide/weathered rock boundary will be visually inspected for the presence of clasts that might be mineralized. If a high density of clasts are found then the overburden will be handled as oxide/weathered rock and stored in the TSF.		FA	issue was satisfactorily addressed by the proponent
3 Loading of steel balls with a front-end loader will produce very high noise levels which ought to be considered in any noise impact assessment of the load-out facility.	The proponent does not plan to back-haul steel balls from the load-out facility. If steel balls are transported, load out facility operators and truck drivers will be required to wear appropriate hearing protection		FA	issue was satisfactorily addressed by the proponent
4 Human Health Risk	The		FA	issue was satisfactorily

Assessment was a concern raised by government agencies	maximum site concentration of arsenic in air (0.00044 µg/m 3) is below both screening values, providing justification for screening arsenic out of the quantitative risk assessment.			addressed by the proponent
5 There was concern about Domestic and Industrial Waste Collection and Disposal, in the project area	Comment regarding Emissions Research and Measurement Division is noted and will be addressed in errata table. Batteries, solvents, paints and treated wood will not be incinerated at Mt. Milligan		FA	issue was satisfactorily addressed by the proponent
6 Government agencies were also concerned about the project effect on Air Quality and asked the proponent to amend measures to conform to BC Ministry of Environment's Guidelines for Air Dispersion Modelling Guidelines in 2008 and describe any changes to the results and/or conclusions if the air dispersion modelling was carried out in accordance with the 2008 guidelines	Comment noted. The proponent would conform to the 2008 Guidelines changes to conclusions would be expected if air dispersion modelling was carried out with 2008 guidelines.		FA	issue was satisfactorily addressed by the proponent

Fully Addressed FA =15

Partially Addressed =11

Not Addressed = 1

Not Sure = 1

Total number of issues raised = 28

Appendix C Table 3: Whites Point Intervenors Comments Tracking Table

First Nations Concerns and Issues

Issues	Proponent Res/EIS	Panel Response/Recommendations	Rating	Notes
1 **Aboriginal Resource Use**: First Nations were concerned that the project could infringe on use of waters for traditional purposes They were also concerned that the project would cause potential destruction of historic site such as the "historic Indian Hill Camp"	- Proponent's indicated that its partial archaeological survey found no specific evidence of Aboriginal occupation and the EIS did not even identify the Indian Hill Camp As a result, the proponent did not provide any mitigation measures to these concerns	Panel recommended that government should work with Aboriginal communities to assist them in dealing with interested parties to document potential environmental effects of this project and other future projects on aboriginal resource use.	Full y Addressed (FA)	The panel addressed intervenor concerns fully despite that the proponent presented inadequate information
2 **Community History and Heritage Resources**: They were concerns that the project could infringe on burial remains and artefacts of historical importance	Propon ent proposed to contact the Nova Scotia Museum if activities uncovered artefacts or burials on the site.	The panel recommended further investigation and possible conservation of archaeological features around the site may be necessary to characterize the remains and a 250 m zone around the "Hersey House" (an important site for archaeological research) remains would warrant special attention and employees would need training. The panel recommended that because the Project activities would remove most archaeological remains on the site the Proponent would be required to work with the Nova Scotia Museum to document them first.	FA	Intervenor concern was fully addressed because the panel's recommendations and proponent mitigation measures were specific to the concern rather than general

3 First Nations were concerned about destruction of Mi'kmaq moose and porpoise hunting grounds	Proponent's EIS did not find significant historical or archaeological features on the site and therefore, did not notice these hunting grounds.	The Panel notes that the archaeological investigation, conducted by an archaeologist whose primary experience was in Plains archaeology, occurred only after the site had been extensively disturbed by quarry activities that may have obliterated evidence of prior site occupation including hunting grounds. A more comprehensive study may have come to different conclusions Panel recommended that more comprehensive study was needed to uncover archaeological sites and hunting grounds	FA	Intervenors were satisfied that the panel fully addressed this concern though not satisfied with proponent's lack of information on this issue
4 First Nations and Fishers were concerned that the proponent efforts to consult with Aboriginal communities on project effects on fishing, traditional knowledge etc were not successful, leaving traditional knowledge out of the EIS	The Proponent response to this was that the location of the Bilcon office was well known and that First Nations and fishers were free to take the initiative to drop by at any time to discuss any issues.	The panel indicated that the absence of meaningful consultation by the Proponent questions the thoroughness of the preparation, completeness of the picture, and conformity to both CEAA's and the Panel's guidelines. Recommendation #4 The Panel recommends that the Province of Nova Scotia develop and implement more effective mechanisms than those currently in place for consultation with local governments, communities and proponents in considering applications for this and other quarry developments.	FA	Intervenors were satisfied that the panel fully addressed this concern though not satisfied with proponent's measures
5 The Bear River First Nation told the panel that consultation between governments			Not Address (NA)	The issue was outside the panel's mandate

and the 13 Chiefs of Nova Scotia is required, and that the federal government has initiated this process for the Project but the provincial government has not.				

ENGOs

Issues	Proponent Response/EIS	Panel Response/Recommendations	Ratings	Notes
Sierra Club of Canada SCC Atlantic Chapter Major concerns				
1 There should be alternative route for vessels to avoid effects on marine mammals such as the North Atlantic Right Whales The alternative routes may offer advantages in relation to vessel safety and the probability of a large whale strike by a vessel.	The proponent responded that a ship would travel within the designated shipping lanes at the reduced speed of 12 knots and would avoid potential collisions with marine mammals. It would then turn at an oblique angle at a predetermined point out of the shipping lane, and proceed directly to the terminal.	The panel however stated that a ship striking a whale at a speed of 12 knots had a 50% probability of producing lethal injury for the whale; a ship travelling at 8 knots reduced the probability of mortality to 20%. Therefore, the Proponent offered limited justification for the choice of its speed limit. Given the critically endangered status of the North Atlantic right whale, the Panel believes that further mitigation measures should have been considered.	FA	Interv enors were satisfied that the panel fully addressed this concern though not satisfied that proponent provided limited information on the issue
2 Concern is that proponent's cumulative assessment is Inadequate and that proponent did not consider cumulative effect assessment such as	Propone nt considers CEEA from other projects other than those of the direct effects of the project footprint and other quarry	The Panel stated that the Project is likely to induce further aggregate extraction activities in the region. Therefore, the Proponent's cumulative effects assessment is not adequate and if the project were to proceed, there is need to revise its CEEA	FA	Panel responses were acceptable to intervenors and were satisfied that the panel fully addressed this concern though not

the likelihood of more quarry companies coming to the place and likelihood of the proponent also expanding with all the adverse effects on the environment,	projects developing in the area, and concluded that cumulative effects of the quarry were not significant	and take into consideration Bilcon's future expansion and other quarry companies developing in the place. Recommendation #5 The Panel recommends that the Province of Nova Scotia modify its regulations to require an environmental assessment of quarry projects of any size.		satisfied with proponent's measures
CPAWS: 3. Project would destroy the suitability of Digby Neck for Conserving rare species both coastal and marine and the establishment of National Marine area if the project is approved	--The proponent proposed to continuously monitor and implement an adaptive management as a tool to prevent project effects on rare species in the marine and coastal environment	--In response the panel stated that monitoring efforts require solid information regarding the state of the environment prior to the onset of project-related change. Baseline information, as the name implies, is the starting point for all future comparative studies. However the proponent has no baseline data on this issue and without it, subsequent observations are meaningless. --The Panel then recommends that in order to manage quarries on such an extensive coast line, Nova Scotia needs to expedite planning for the coastal zone to facilitate decision-making. --such plans and policies would create a more predictable environment about what kinds of activities should occur where in the coastal zone. --- It could resolve debates about protecting rare coastal habitats, and could establish appropriate buffer zones and management practices for environmental	FA	Interv enor were satisfied with the panel response to this concern

		protection of rare habitats and sensitive ecosystems in the coastal zone.		
Ecology Action Center **4** Because of the destruction accompanying mega-quarries like this one, proposals for major industrial developments targeted at internationally recognized or environmentally important coastal regions should be deferred until a provincial plan on coastal management policy has been completed.		The panel stated that coastal quarries exert direct effects on the marine environment through the extraction process and the involvement of large ships. Because of the special issues associated with coastal quarries, the Panel recommends a moratorium on new approvals for the Whites Point and developments along the North Mountain until the Province of Nova Scotia has thoroughly reviewed this type of initiative within the context of a comprehensive provincial coastal zone management policy, and established appropriate guidelines to facilitate decision-making.	FA	Intervenors were satisfied that the panel fully addressed this concern
5 There were concerns that the Project would introduce invasive species through ballast water into the coastal environment	The EIS proposed a regular monitoring program over the first five years of the Project to ensure invasive species do not come through ballast waters, but no effective mitigation was offered apart from this suggestion by the proponent	The Panel stated that in the case of an accident that might bring in unwanted organisms, the highly dynamic character of the coastline would result in rapid dispersal of undesirable organisms that may negate any feasible preventive action. Recommendation #7 The Panel recommends that Transport Canada revise its ballast water regulations to ensure that ships transporting goods from waters with known risks take appropriate measures to significantly reduce the risk of transmission of unwanted species	FA	Intervenors were satisfied that the panel fully addressed this concern though not satisfied with proponent's measures
Friends of Nature 6 Concerned that project will have	The Proponent suggested that activities such as incremental site	The Panel believes that the long-term effectiveness of the proposed offsets would be limited and that the Project would add a	FA	Intervenors were satisfied that the panel fully addressed this

serious effects on non-renewable natural resources and also GHG emissions	reclamation, re-use of wood fibres from land clearing, and improved silviculture practices on adjacent properties would partially offset GHG emissions and reclaim the land.	small but significant GHG burden at a time when Nova Scotia and Canada have committed to reduction. The Panel also stated that the Proponent did not consider voluntary measures leading to a more aggressive GHG reduction --Proponent assessment of GHG emissions is not satisfactory		concern though not satisfied with proponent's measures

Public, Local government and Community Concerns

Issues	Proponent Res/EIS	Panel Res/Recommendations	Ratings	Notes
1 They were concerned that the project would have unmitigated effects on Fishing which is one of the main economic activity of the communities in the project area	--Proponent determined that the fish habitat to be destroyed is very small. The Proponent offered some mitigation for the fishery by proposing a call-in line that would advise fishers when ships are scheduled to arrive at the terminal. The proponent would have a Fish Habitat Compensation Plan which involves installing fish shelters and creating habitat on the pipe piles themselves	Since some fishers would lose access to current fishing areas in part or in total, mitigation measures would need to go further than the proposals in the EIS. The panel indicated that compensating opportunity losses to fishing interests would have required the proponent to have a more robust compensation programs if the project was to be approved which the proponent does not have for this project. The Panel concludes that the proponent's mitigation strategy may not be technically feasible, because at times ship would be forced to stand off because weather or ocean conditions would not permit it to dock, thereby leaving fishers unable to check gear for long periods. A changing shipping schedule would greatly complicate	FA	Inter venors were satisfied that the panel fully addressed this concern though not satisfied with proponent's measures

		fishers' attempts to obtain the latest information available.		
2 Project effects on Tourism: Community representatives expressed concerns about a host of potential effects on tourism from the proposed Project, including impacts on whales, views of the coast from the Bay, migratory birds, and environmental activities in the planning stage	The proponent proposed to cover the quarry activity that will be visible from Highway #217. In addition no trucks will be carrying crushed rock on Highway #217. EIS There is no evidence that quarry activities would affect tourism even when the quarry is highly Visible	Panel indicates that a coastal vegetation zone is unlikely to offer adequate visual screening of the site. Incremental site reclamation would help to re-establish vegetation but would not completely hide the operating facilities for those on the water offshore of the site. Panel further indicated that the Project is not consistent with articulated provincial and local policy on tourism development and promotion	FA	Inter venors were satisfied that the panel fully addressed this concern though not satisfied with proponent's measures
3 Socio-cultural and economic concerns: community members suggest that if the project proceeds, it will rather create unemployment in the area contrary to the assertion that it will create jobs. For example: A mega-quarry with a large marine terminal would take a tragic toll on traditional jobs and lifestyles of Digby Neck Community. It would also be a major setback in the ongoing battle to preserve the North Mountain and coast of Bay of Fundy from	The proposed that staff will be hired locally wherever possible and training will be provided by Bilcon at its expense. All staff will be paid industry competitive wages. Hiring preference will be given to women. Great care will be taken to ensure that staffing does not negatively affect	The panel indicated that the local community would experience social, cultural and economic problems that would not be compensated by the projected gains. Based on these concerns, the panel concluded the proponent could not successfully prove that the overall benefits of the project outweigh the adverse effects on community life and the environment The Panel has concluded that the Project would likely have an adverse environmental effect on the socio-economic health and viability of some of the fishing communities of Digby Neck and Islands.	FA There were no specific recommendations here, the made analysis and major findings	Inter venors were satisfied that the panel fully addressed this concern though not satisfied with proponent's measures

proliferation of quarries producing basalt for export. The project would possibly introduction 34 new jobs (skilled and unskilled) into the community	local businesses. Bilcon will wherever possible procure supplies in the local area and generally support local business both during construction and operation of the facility. There is no evidence that the operation of the quarry will affect either the fishery or the tourism industry. The 34 staff at the quarry and marine terminal would have a significant positive effect on the local economy and the taxes paid to the Municipality of the District of Digby would also have a significant positive impact on tax revenues in the local area pp EIS			
4 Traditional knowledge and heritage concerns: Community representatives were concerned that Removing the rock and shipping it	Proponent's EIS indicated that archaeological assessment carried out under a permit issued by Nova Scotia Museums found no evidence of land use at Whites Cove by	The proponent needed to have meaningful consultation with community members in order to incorporate traditional knowledge into the process. The absence of meaningful consultation led to de facto exclusion from a large existing body of knowledge and	FA	Inter venors were satisfied that the panel fully addressed this concern though not satisfied with proponent's measures

away is a violation of their landscape and cultural heritage.	aboriginal peoples. Pp EIS	also engendered a lack of confidence on the part of many reviewers of the EIS as to the thoroughness of the preparation, completeness of the picture, and conformity to both CEAA's and the Panel's guidelines. The Panel concludes that the Proponent's efforts to include traditional community knowledge in the process were inadequate		
5 Community Health and Wellness: Residents expressed concerns that the proposed Project could undermine community health and wellness because of the project would affect air quality, well water quantity and quality, noise, light and traffic	The Proponent did not accept the premise that the Project might affect quality of life, socio-cultural patterns, or community health and wellness, and hence proposed no mitigation. The EIS predicts that improvements to employment options would result in benefits to the region to balance for this effect on the community	The Panel indicated that several components of the quarry activities would generate extremely fine particles that are likely to become windborne and that present a serious risk of creating adverse environmental effects on human receptors. Mitigation of this effect by wetting storage piles would help but cannot eliminate the problem, especially during ship loading. Appropriate and technically feasible mitigation measures to eliminate the risk of windborne particles would increase the cost of the Project.	FA	Inter venors were satisfied that the panel fully addressed this concern though not satisfied with proponent's measures
6 Adaptive Management Concerns: Intervenors were concerned about the proponent's proposed use of adaptive management to mitigate the project effects on the environment. Interveners argued	The Proponent identified adaptive management as an important strategy to minimize risk and to ensure appropriate actions to counter potential environmental effects of the project.	The Panel stated that participants in environmental review processes require greater clarity from government on what adaptive management means; an agency like CEAA could assist the environmental assessment process by producing guidance documents on adaptive management. Recommendati	FA	Inter venors were satisfied that the panel fully addressed this concern though not satisfied with proponent's measures

that adaptive management can work only when basic conditions of scientific knowledge and environmental management are met.		on #6 The Panel then recommends that the Canadian Environmental Assessment Agency develop a guidance document on the application of adaptive management in environmental assessments and in environmental management following approvals.		

Government Agencies

Issues	Proponent Res/EIS	Panel Res/Recommendations	Ratings	Notes
1. Noise, Dust and air quality: Health Canada HC suggests that Periodic blasting would create episodic noises and vibrations that would likely be heard and felt some distance away. HC on air Quality: Based on information provided in the EIS, HC concluded that standards set for air quality could not be met by the proponent.	The Proponent informed the Panel that it purchased additional properties around the site, in part to mitigate concerns about noise, dust and air quality. Such measures increase distance to receptors but also fuel latent anxieties among those who fear that such purchases are a prelude to quarry expansion Despite these mitigation measures, the Proponent presented conflicting information during the hearings as to the size of each planned operational blast, the blast array, the amount of	--Panel believes that the Project would affect the ability of residents within one kilometre of the Project to enjoy their property in the way they do now. Noise, dust, light and traffic would disrupt the life residents have come to know and love in Digby Neck and Islands. --In view of the uncertainties about volumes of explosives, the Panel considers it advisable to use precaution and estimates that the amount of explosives used to fragment one tonne of rock could be 0.45 kg.	FA	Interveno rs were satisfied that the panel fully addressed this concern though not satisfied with proponent's measures

	explosive to be used, the possible number of blasts required, the amount of residual ammonia that would be released and the exact details of the planned test blast.			
2. Nova Scotia Department of Tourism, Culture and Heritage presentation: They were concerned that the project development is not consistent with their international tourism promotion and positioning as Canada's Seacoast	Mitigation measure: offered to work with tourism officials to monitor potential effects of project on tourism, but proposed no strategy to do so. Suggested in the EIS that the coastal buffer zone could serve, in part, as a visual barrier to mask the site from tourists on whale watching boats.	Panel, coastal vegetation zone is unlikely to offer adequate visual screening of the site. Incremental site reclamation would help to re-establish vegetation but would not completely hide the operating facilities for those on the water offshore of the site. This is more so when the potential effects of the Project on the tourism industry are difficult to predict, with any certainty, given the many factors involved, but the Panel acknowledges that those involved in the tourism industry believe that the Project is not consistent with articulated provincial and local policy.	FA	Interveno rs were satisfied that the panel fully addressed this concern though not satisfied with proponent's measures
3 DFO, "the increased ship traffic due to the proposed activity, and the proposed route for these vessels, will result in an increase in the probability of vessel whale interaction along the proposed route". Mitigation proposed to avoid project effect on	Proponent mitigation measure include use of observers stationed either at the highest point on the marine terminal or in small boats monitor vessel movement to advise fishers	The Panel indicated that coastal conditions would make docking a large ship on this unprotected shore potentially dangerous and would present a significant risk for accidents. It therefore recommended that routine alerts or bulletins directed to the fishing community	FA	Interveno rs were satisfied with the panel responses

fishing is not justified by proponent		would have lessened the risk of collision or gear disruption if the project was to be approved. The Panel concluded that vessel traffic by the Project would disrupt fishing activities around the marine terminal and inconvenience fishers who by tradition work these waters.		
4. The Nova Scotia Department of Natural Resources (NSDNR) pointed out that the Proponent did not pay sufficient attention to soil carbon, as opposed to carbon above ground. Soil carbon is generally the largest portion of terrestrial carbon and also emitter of GHGs. Some intervenors suggested that the Project would qualify as a "large emitter" in the Nova Scotia context.	The Proponent estimates annual on-site carbon dioxide production of 81.8 kilo tonnes (kt) during the production phase, while ship transport of the aggregate to New Jersey would add another 22.2 kt, for an annual total of 104 kt. The proponent then proposed carbon offsets such as incremental site reclamation, re-use of wood fibres from land clearing was not quantified but officials concluded that it is unlikely that they would be sufficient to make the Project carbon-neutral	It is therefore incumbent upon the proponent to demonstrate that their projects seek to minimize GHG releases and that they contribute to provincial and national goals and commitments However, the Panel was disappointed that the Proponent did not consider voluntary measures leading to a more aggressive GHG reduction.	FA	Interveno rs were satisfied with the panel's response that the proponent's proposed measures were inadequate in addressing the GHGs emissions

Total number of issues raised 21

Fully addressed 20

Partially addressed 0

Not Addressed 1

Panel Major Recommendation's table

1. The Panel recommends that the Minister of Environment and Labour (Nova Scotia) **reject the proposal** made by Bilcon of Nova Scotia to create the Whites Point Quarry and Marine Terminal and recommends to the Government of Canada that the Project is likely to cause significant adverse environmental effects that, in the opinion of the Panel, cannot be justified in the circumstances.

2. The Panel recommends that the Province of Nova Scotia develop and implement a comprehensive coastal zone management policy or plan for the Province.

3. Because of the special issues associated with coastal quarries, the Panel recommends a moratorium on new approvals for development along the North Mountain until the Province of Nova Scotia has thoroughly reviewed this type of initiative within the context of a comprehensive provincial coastal zone management policy and established appropriate guidelines to facilitate decision-making.

4. The Panel recommends that the Province of Nova Scotia develop and implement more effective mechanisms than those currently in place for consultation with local governments, communities and proponents in considering applications for quarry developments.

5. The Panel recommends that the Province of Nova Scotia modify its regulations to require an environmental assessment of quarry projects of any size.

6. The Panel recommends that the Canadian Environmental Assessment Agency develop a guidance document on the application of adaptive management in environmental assessments and in environmental management following approvals.

7. The Panel recommends that Transport Canada revise its ballast water regulations to ensure that ships transporting goods from waters with known risks take appropriate measures to

significantly reduce the risk of transmission of unwanted species.

Appendix D Table 4: Sydney Tar Ponds Intervenors Comments Tracking Table

First Nations Concerns and Issues

Issues	Proponent Res/EIS	Panel Res/Recommendations	Ratings	Notes
1. Archaeology and Heritage Resources: First Nations were concern that the project would destroy archaeology and heritage resources and therefore required the proponent to monitor during construction by professional archaeologists to recover any heritage resources. This is because the Mi'kmaw Ecological Knowledge Study (MEKS) provided detail of the presence of prehistoric settlement in the close proximity to Muggah Creek.	As a measure by the proponent, the area on the west side of Muggah Creek would be monitored by a professional archaeologist during the construction phase to ensure heritage resources are not destroyed but are recovered and preserved	Recommendation #46 The Panel recommends that when STPA develops the contingency plan related to archaeology and heritage resources to be included in the Environmental Management Plan, this information should be shared with parties with an interest or a potential role to play upon discovery of items of significance. These include First Nations representatives, government, academic and community interests. The Panel also suggested that appropriate government, academic and community interests should be made aware of monitoring programs and contingency plans related to heritage resources.	FA	First Nations were satisfied that both proponent's measures and panel recommendations fully addressed this concern
2. Concern was about the degree of appropriate consultation A representative of	A Protocol Agreement negotiated with First Nations will serve as a guide and consider respective	The Panel concludes that this issue lies outside the Panel's mandate.	Not Address (NA)	Issue was not addressed by panel in the EA process because it was outside their mandate

Membertou First Nation told the Panel that governments had a duty to consult with First Nations and that this consultation had not yet taken place	interests of First Nations by the proponent.			

ENGOs

Issues	Proponent Res/EIS	Panel Res/Recommendations	Ratings	Notes
Sierra Club of Canada SCC Atlantic Chapter Major concerns **1**. The Sierra Club of Canada was concerned that the STPA's proposed approach of excavation and incineration of the most contaminated sediments and soils may result in health problems. This was also raised by the public and local government authorities.	As mitigation measure, the proponent proposed not to include incineration in the proposed approaches	The panel Heard and takes seriously the widespread community concerns about the use of incineration and agrees that a measure of stress and anxiety would likely result. The Panel concludes that, relying on STPA's definition of health, removal of incineration from the Project will prevent a source of stress within a community and thereby will be beneficial to health. The panel recommended that the proposed incineration be removed	Fully addressed (FA)	Intervenors were satisfied on this issue because it was addressed fully by both panel and proponent
2. The concern was that the proponent did not have plan for Social and Community, recreational effects, as it relates to future use of the project after it is remediated	The proponent EIS did not have strategies or plan for future use of remediated sites	Panel recommends that future use plan be developed by the proponent.	PA	Partially addressed because the panel recommendations would not have the same effect like if the proponent had it planned for in its EIS
3. They were also concerned about the proposed containment in place and in situ mixing	The proponent suggested that it would maintain	The panel recommended that thorough research should be carried out by the	Not Address (NA)	Intervenors wanted removal and destruction of

of cement with the Tar Ponds sediments (in a process known as solidification/stabilization [S/S]), followed by capping and surface water and groundwater flow diversion/collection.	full containment as primary approach and solidify/stabilize all of the Tar Ponds sediments in-place as a secondary approach because these were proven technologies used all over North America	proponent on the proposed containment and solidification/stabilization technology to be sure that is proven for use in the Tar Ponds context—that is, to be applied to organic contaminants in organically enriched sediments in an estuary with potential groundwater and seawater influx. The Panel understands that the primary remediation technology to be applied to the Tar Ponds is containment, with use of solidification/stabilization as a secondary approach. Nevertheless, the Panel believes that further pilot studies must be carried out and specific targets reached before this technology is approved for use in the Project		contaminated sediments offsite and not containment in place.
4 Managing Water Flow: The STPA failed to adequately and reliably report on the literature, which demonstrates that HDPE sheeting is subject to deterioration that can cause it to be an ineffective barrier for transport of water/ pollutants.	The STPA proposes to use high-density polyethylene (HDPE) sheeting vertical walls to prevent groundwater from entering the S/S treated sediments, and to use water collection/diversion ditches lined with HDPE to collect and transport out of the S/S-treated sediments any water that contacts the sediments.	The Project involves extensive interception of groundwater to reduce future contact between both ground and surface water with remaining contaminated soils and sediments. The Panel agrees that this component of the Project will have a beneficial effect on environmental quality, and has recommended the use of more extensive hydrographic modeling to refine Project design and avoid any adverse impacts from redirection of groundwater flows, and a comprehensive groundwater monitoring program. Both the Tar Ponds site and extensive	PA	Intervenors were not completely satisfied with the proponent's proposed mitigations and the panel did not also do a detail discussion of the issue

		areas of the Coke Ovens site should be capped.		

Public, Local government and Community Concerns

Issues	Proponent Res/EIS	Panel Res/Recommendations	Ratings	Notes
1 Health Risk: Health was the biggest concern raised by many community presenters. --Presenters questioned the adequacy of the human health risk assessment methodology, ---lack of epidemiological studies, ---lack of adequate monitoring for dioxins and furans, and ---Presenters demand STPA acquire technology that would enable continuous monitoring of air quality	Responding to concerns about continuous monitoring of dioxin emissions: ---STPA pointed out that the technologies referred to by the interveners were samplers and not analyzers. --- these devices may operate continuously by absorbing contaminants in a filter material but the sample still had to be sent to a laboratory for analysis. ---This would not constitute continuous monitoring, and while the technology could provide useful information and reassurance for the public, it could not analyze at a detection level low enough to satisfy Canadian federal regulators. STPA did undertake to	Recommendation#20 --The Panel recommends that NSEL and PWGSC require STPA to conduct additional dispersion and risk assessment modeling of project effects on health concerns raised by intervenors. This analysis should be provided to Environment Canada, Health Canada, and NSEL for review and comment.	PA	Intervenors were not completely satisfied with proponent mitigation measures on health risks of the project

	look at the technology referred to by the interveners.			
2 Accidents &Malfunctions: Intervenors were concerned that there could be Transportation spills; especially as the rail line runs along Grand Lake. This could result in toxic gases being released into the air without having been treated by pollution control equipment The public was concerned also with failure of components of the Project – failure of solidification / stabilization, failure of synthetic liners, cap failure, failure of the pump and treat systems, and failure of the barrier walls.	--STPA responded that with the implementation of mitigation, health and safety provisions and monitoring programs, effects of malfunctions and accidents are expected to be of small magnitude and duration, localized and reversible	The panel stated that for those relating to monitoring of air quality, the Panel has identified the need for improvements to and oversight of air monitoring and reporting procedures and believe these recommendations will lessen the potential for future malfunctioning of equipment and improve response to air quality incidents. Recommendation #32 Community Involvement The Panel recommends that STPA, in collaboration with the Community Liaison Committee (see Recommendation 55) be required by NSEL and PWGSC to develop a community consultation program to engage with residents in the vicinity of the project site to provide information, identify and address concerns, and establish an ongoing reporting protocol on malfunctions and accidents	PA	Intervenors were not completely satisfied with proponent's mitigation measures, negative effects would still be significant on the community health
3. Socio-Economic	the proponent	The Panel	FA	Intervenors were

Consideration: ---The major public concern in the area of socio-economic impact of the project centers on Equity of access to employment for minority groups such as African Nova Scotians and, for women and First Nations people.	proposed to source labour locally first when qualified individuals are available, and has suggested that "special measures may need to be considered to ensure employment equity	recommends that: ---First, the proponent should be required by NSEL and PWGSC to develop a comprehensive economic benefits strategy to ensure that economic benefits and employment accrue locally to the greatest extent possible. ---Second, carry out a gender analysis as part of their forthcoming labour capacity study, and work with local women's organizations, business organizations and education and training institutions to develop a women's employment strategy to promote and facilitate the participation of women in the non-traditional trades and technologies required by the Project. ----Finally, the proponent should consult with the Cape Breton Black Employment Partnership Committee, to develop equity policies and training and outreach programs to promote and facilitate the training and employment of African Nova Scotians on the remediation Project, and should monitor the results throughout the life of the Project. The strategy should include a monitoring and reporting program to track local business and labour participation in the Project.		satisfied with panel recommendations and the proponent's commitment

4 Future Use of Project: -- participants criticised the lack of information on achieving sustainable future uses in the EIS. ---Contending the EIS mainly focused on the details of how the Project would meet its first objective – reducing ecological and human health risk	EIS did not have information on future use of remediated site	Recommendation # 39 Future Use Plan The Panel recommends that STPA, in collaboration with CBRM, develop a future use plan for the remediated Tar Ponds and Coke Ovens site that addresses the requirements of the evolving Port to Port Corridor concept, the community's interest in active living open space opportunities, the issues and concerns of adjacent neighbourhoods, the practical realities of the remediation process and subsequent monitoring and maintenance. The plan should draw on examples of best practice in brown field redevelopment wherever possible, and identify the resources necessary for implementation.	PA	The issue was not addressed completely by the proponent but panel made recommendation and there were accepted by government
5. The public raised concerns about the regulatory processes, especially coordination and monitoring of the different sizes of the project by the provincial and federal governments.		The Panel recommended that the two governments develop a formal agreement to share expertise and coordinate regulatory processes. Given that some of the contaminants will remain on the sites for a very long time, if not in perpetuity, the Panel has also recommended that ongoing maintenance and monitoring be guaranteed through a provincial act of the legislature with provisions for reporting and accountability	PA	Intervenors were not completely satisfied with the lack of coordination between the two governments but satisfied with panel recommendations

6. The public was concerned that monitoring details was absent in the proponent's EIS	STPA has committed to develop monitoring programs for environmental effects and environmental compliance. STPA indicated that they would be responsible for monitoring programs and that the programs would be integrated into contractual arrangements with the contractors.	The Panel recommends that approval for the Project be contingent on STPA preparing an adequate monitoring program that addresses all issues raised during the environmental assessment process and has been reviewed and approved by all key federal and provincial departments. Further recommends that PWGSC and NSEL, before construction begins, appoint an independent three-member monitoring oversight board with a formal mandate tied in to the Federal-Provincial Regulatory Plan.	FA	Interve nors were satisfied that the panel fully address this concern
7. Transportation: Residents were concerned that the rails and rail bed were not in good condition and that they were concerned that an accident could occur when transporting contaminated material, possibly resulting in the contamination of Grand Lake and other water bodies. It could also cause traffic congestion in CBDC.	The proponent proposed that all major construction, backfill, and cap materials would be transported by highway-licensed tandem, tri-axle, and tractor trailer trucks. These methods of transport are considered technically and economically feasible, as discussed in the EIS.	The Panel recommends that STPA be required by NSEL and PWGSC to develop a Transportation Management Plan before Project construction begins.	FA	Interve nors were satisfied with panel recommendation
8 Property Value: Residents in the project area were concerned that the project would have negative effects on the already depressed value of their properties, and on their ability to either sell or rent their homes.	A model was developed for assessing current impacts to property values and the results provided in the EIS indicate existing impacts ranging from 13%	The Panel recommends that STPA, in consultation with CBRM, be required by NSEL and PWGSC to develop a property value protection program to be applied to properties in the	FA	Interve nors were satisfied with panel recommendation

	for properties within 100 m to 0.15% for those properties beyond 1km from the sites. For those areas assessed in the vicinity of the Tar Ponds and Coke Ovens sites the construction phase of the Project is predicted to have no more than a 1% impact for Projects immediately adjacent to the site and along heavy equipment routes. Following construction a positive effect is anticipated to recover the current property value impacts of 13% to 0.15% identified through the model. Redevelopment of the sites is expected to provide further increases in property values. STPA has also proposed to confirm predictions of the assessment on property values by rerunning the property valuation model every two years during Project construction	immediate vicinity of the remediation sites and at most risk of being affected by noise, odour, dust or transportation		

Government Agencies

Issues	Proponent Res/EIS	Panel Res/Recommendations	Ratings	Notes
1. Environment	To mitigate and assist	Recommendati	FA	Government agencies were

Canada EC and Health Canada HC were both concern about air quality and human health risk assessment by the proponent: -- They insist that the air dispersion and risk assessment numbers should be remodelled to efficiently address air quality concerns	in predicting the effects of the project on air quality, STPA conducted two pilot-scale simulated remediation activities involving Tar Ponds sediments – excavation and in-situ stabilization. STPA then indicated that the change in air quality due to higher levels of volatilization of Tar Ponds contaminants would remain below significance thresholds and that, at the Coke Ovens site, the use of the previously identified enclosure, ventilation and air filter system would prevent harmful air emissions	on #4 The Panel recommends that NSEL and PWGSC require STPA to calculate the total expected ambient air concentrations due to the combination of all Project-related emission sources and the existing pollutant levels in the local air shed. The results of this analysis may affect the ecological and human health risk assessments. Recommendation #5 The Panel recommends that NSEL and PWGSC require STPA, as part of a pilot in-situ study of the solidification / stabilization process (Recommendation 13), evaluate the potential for air-borne emissions and implement appropriate mitigation measures and integrate these measures within the Project design.		satisfied with the panel recommendations
2. The Nova Scotia Department of Natural Resources was concerned that the 1 kilometre radius is not sufficiently wide to protect some species of vegetation such as the boreal felt lichen, which is considered, endangered and sensitive to airborne pollutants.	STPA indicated that clearing terrestrial vegetation at the project site to widen the 1 kilometer radius could affect nesting migratory birds, particularly ground nesters. To minimize this possibility, STPA proposes that clearing activities avoid the period between April 15	The Panel agrees with STPA's conclusion on the risk to species of conservation concern.	FA	Government agencies were satisfied with proponent measures and panel recommendations

The Department then suggested that the geographical area for analysis for all species listed as red, yellow, undetermined or with formal protection under Species at Risk Act and Nova Scotia Endangered Species Act be extended to one hundred kilometres.	and August 15.			
3. DFO, Environment Canada and Natural Resources Canada requested that STPA should complete an ecological risk assessment for Sydney Harbour to aid in designing mitigation and monitoring program to prevent contamination.	However STPA has predicted that there will be a short-term increase in the contaminant flux to the Harbour during the remediation, followed by a permanent and significant decrease and would not significantly affect the Harbour.	The panel agree with DFO, EC and NRCan and recommended that STPA participate with the three federal departments in monitoring long term environmental improvements in the Harbour.	FA	Government agencies were satisfied with proponent measures and panel recommendations
4. **Ground and surface water concerns**: Environment Canada (EC) was concerned about the proponent's ground and surface water management measures. EC commented that a preliminary quantitative assessment of the	STPA is proposed to address ground and surface water remediation primarily through water diversion and the removal or treatment of contaminant sources, rather than through treating the groundwater directly. Therefore STPA did not develop numerical	Recommendation #8 The Panel recommends that, prior to providing funds or issuing approvals to proceed with solidification / stabilization, NSEL and PWGSC require STPA to: Incorporate hydro-geological modelling	FA	Government agencies were satisfied with the panel recommendations

proposed control measures would have been helpful in evaluating the Project effects on this issue. EC recommended that STPA conduct additional modelling and use the results in the final design of the Project's surface and groundwater control features.	groundwater quality objectives. STPA would protect downstream water quality in the Project area from further degradation by treating wastewater discharges and controlling runoff. Discharge criteria would be based on previously developed site-specific surface water quality criteria and compliance requirements under the Fisheries Act.	results into the final design of the groundwater and surface water control measures and the monitoring network; • Provide detailed calculations of the volume of groundwater that could flow through the Coke Ovens site following surface water diversion and the installation of the underground barriers and the surface cap; • Assess potential hydrostatic mounding that may be generated when groundwater flow encounters cut-off walls and address the impact of mounding, if required. Recommendation #8 The Panel recommends that, prior to providing funds or issuing approvals to proceed with the Project, NSEL and PWGSC require STPA to develop a detailed groundwater monitoring program for the various Project areas, including the intermediate and deeper bedrock zones.		
5. Terrestrial Environment and Freshwater Habitat Concerns: DFO indicated that the	As mitigation STPA proposes to rescue fish prior to excavation; however it states that the practicality	Recommendation #15 The Panel recommends that NSEL and PWGSC require STPA to consult with	PA	Government agencies were not completely satisfied with proponent mitigation measures

main remediation project should result in a restoration of damaged fresh water habitat, which is consistent with a policy objective to achieve a net gain of productive capacity of fish habitat. NSDNR was concerned that the EIS failed to restore or compensate for the loss of wetland and inter-tidal habitat. It stated that it was not reasonable to assume that birds would move to other suitable habitat without having an impact on birds already resident in the new location.	and appropriateness of fish rescue will depend on a variety of factors requiring further evaluation. STPA will monitor watercourses on site to document the expected return of fish species to the watershed. STPA concluded that there were no terrestrial, avian, and freshwater species of special concern (e.g. species at risk) on Project sites. STPA's then suggested that, following completion of Project activities, remediated areas would improve terrestrial and freshwater habitat. While some loss of wildlife and aquatic habitat area is expected, it would not be significant. Mitigation measures would minimize direct adverse effects on birds and fish	DFO in the design of the Project's constructed watercourses and in the design of a long-term aquatic biodiversity monitoring study of the Coke Ovens Brook and Wash Brook watersheds.		

Number of concerns fully addressed FA =10

Partially addressed PA = 7

Not Address NA =2

Total issues raised 19