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The Application of Environmental Impact Assessment Legislation to the 2010 Winter Olympic Games Venue and Infrastructure Developments

By
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(B.A. Hon. Geography, Wilfrid Laurier University, 2006)

THESIS

Submitted to the Department/Faculty of Geography and Environmental Studies
in partial fulfilment of the requirements for the Master of Environmental Science degree

Wilfrid Laurier University

August 8th 2008

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Abstract:

Environmental impact assessment (EIA) is a tool which aims to make developments better by identifying, avoiding, and mitigating potential negative environmental impacts of projects and other action. With the 2010 Winter Olympic Games being held in the Vancouver to Whistler (sea-to-sky) corridor many developments have been initiated and EIA has played a role in 2010 site construction. Using case study analysis, legislative and literature reviews as well as open-ended interviews with key participants, stakeholders, and partners in the environmental impact assessment process, this study investigated the application of Canada's and British Columbia's environmental impact assessment legislations to the 2010 Olympic Games venues and infrastructure developments. The objective is to determine if best practices have been employed and all legislated requirements have been met.

The research has found, among other issues, that cumulative environmental assessment techniques have been restricted, follow-up measures are rarely implemented, monitoring requirements are poorly enforced, and that provincial and federal environmental assessment offices, and other government agencies, are hampered by capacity issues (monetary and personnel).

The findings present information that can be used to enhance federal-provincial environmental impact assessment coordination and enhance environmental impact assessment processes in Canada. This research also presents information which is suitable for assessing other spectacle events and multiple-site development projects across a range of jurisdictions.

Keywords: Environmental impact assessment, Olympic, 2010, EIA, Whistler, Vancouver, Harmonization, Development tool

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Table of Contents

Abstract:.....	2
Acknowledgements.....	3
Table of Contents.....	4
List of Tables	7
List of Figures.....	7
Commonly Used Acronyms and Short-forms.....	8
1 Introduction.....	10
2 Questions and Methods.....	14
2.1 Method	16
2.2 Detailed Method Description	18
2.2.1 Interviews.....	18
2.2.2 Case Study Analysis	21
2.2.3 Analyzing data	22
2.3 Research Context (History and Theory):	23
2.3.1 Literature review	23
2.3.2 Legislative Context	24
3 Policy Setting.....	26
3.1 Federal EIA History	26
3.1.1 Canadian Environmental Assessment Act	27
3.1.2 Canadian Environmental Assessment Agency	28
3.2 B.C. EIA History.....	30
3.2.1 British Columbia’s Environmental Assessment Office	30

3.2.2	British Columbia’s Environmental Assessment Act.....	30
3.3	The Harmonized EIA Process.....	31
3.4	Regional Land and Resource Management Plans.....	31
3.5	IOC Expectations	35
3.6	Vancouver Organizing Committee Environmental Vision.....	36
3.7	VANOC Board of Directors.....	36
3.8	Four Host First Nations.....	38
4	Literature Review.....	45
4.1	Weaknesses and Strengths of the Federal EIA Process	45
4.1.1	Weaknesses	45
4.1.2	Strengths of the CEAAct	50
4.2	Weaknesses and Strengths of the EIA Process in B.C.....	51
4.2.1	Strengths	51
4.2.2	Weaknesses	53
4.3	Strengths and Weaknesses in the Canada-B.C. Harmonized EIA Process ..	54
4.4	‘Best Practices’ in EIA.....	56
4.5	Environmental Impacts and the Olympic Games.....	58
4.6	Venue/Infrastructure Descriptions and EIA decisions.....	60
4.7	Knowledge Gaps	66
5	Discussion and Findings	70
5.1	Efficacy and Process	70
5.2	Harmonization.....	119
5.3	Meeting International Expectations	128

6	Policy Implications and Recommendations.....	139
7	Conclusions.....	148
8	Future Research	154
9	Appendix A – Survey Form.....	156
9.1	Interview Questions and Introduction.....	156
9.1.1	Interview Question Themes:.....	156
9.2	Application of Environmental Impact Assessment to the 2010 Winter Olympic Games developments.	158
10	Appendix B – Venue Descriptions	161
11	Appendix C – Response and Venue Summary	173
12	Appendix D – In-depth Response on Harmonization	179
13	Appendix E – VANOC Board of Directors	181
14	Reference List	190

List of Tables

Table 1 - Origin Sector of Respondents.....	20
Table 2 – summary the actions at the various stages of an EIA	29
Table 3 - Venue Summary	63
Table 4 - Response Summary	173
Table 5 - Venue EIA info.....	175
Table 6 - Venue EIA Info 2	176
Table 7 - Venue Development info.....	177
Table 8 - Venue Coordinates	178
Table 9 - VANOC Board of Directors	181

List of Figures

Figure 1 - EIA system and sub-systems.....	22
Figure 2 – Does the Act Apply?	28
Figure 3 - Traditional Four Host First Nations' Territory	40
Figure 4 - Traditional Lil'wat Nation Territory	41
Figure 5 - Traditional Squamish Nation Territory	42
Figure 6 - Traditional Musqueam Nation Territory	43
Figure 7 - Traditional Tsleil-Waututh Nation Territory	44
Figure 8 - EIA Best Practice	58
Figure 9 -Map of Lower B.C. Figure 5 and 6 Insets Highlighted.....	61
Figure 10 - Vancouver Venue Locations	62
Figure 11 - Whistler Venue Locations.....	63

Commonly Used Acronyms and Short-forms

EIA(s)	– Environmental Impact Assessment(s)
EA(s)	– Environmental Assessment(s)
FNs	– First Nations
SEA	– Strategic Environmental Assessment
CEA	– Cumulative Effects Assessment, Cumulative Environmental Assessment
CEAA	– Canadian Environmental Assessment Agency
CEAAct	– Canadian Environmental Assessment Act
EAO	– Environmental Assessment Office (British Columbia)
EAA	– Environmental Assessment Act (British Columbia)
Van	– Vancouver
Whis	– Whistler
Nav waters	– Navigable Waters Act
TK	– Traditional Knowledge
AIUS	- Aboriginal Interest and Use Studies
AIA	-- Aboriginal Impact Assessment
VANOC	– Vancouver Organizing Committee
IOC	– International Olympic Committee
s2s	– sea-to-sky
LEED	-- Leadership in Energy and Environmental Design
TOR	-- Terms of Reference
WLS	-- Whistler Legacy Society

NGO – Non-governmental Organization

SEA -- Strategic Environmental Assessment

1 Introduction

There is no greater global event than the Olympics which focuses world attention so intensely on the city and region in which it is held. This massive month long spectacle will inevitably have impacts on the economic, social, and environmental systems of the host city. Environmental Impact Assessment (EIA) has a role to ensure that the Olympic Games yields the best possible benefits for the places where this mega-event occur. It was not until recently that legislated EIA was introduced and the process is under continuing scrutiny and assessment. Differences in federal and provincial regulations for environmental assessment have contributed to bureaucratic gridlocks, projects being questionably approved or delayed, and mass confusion within government agencies, industrial stakeholders, and ordinary citizens (Diduck, & Sinclair, 2002; Marsden, 1998).

This research investigates the application of Environmental Impact Assessment legislation to the 2010 Olympic Games venue developments. Interviews with stakeholders and partners involved in the EIA process were held in 2007 to help understand the application of EIA in the 2010 context and to develop an image of collaboration and practice issues. Through the study of the evolution of the Canadian Environmental Assessment (CEA) Act and its administrative agency (CEAA), as well as the provincial EIA process in British Columbia directed by the Environmental Assessment Act (EAA) and its administrative agency - the Environmental Assessment Office (EAO) - this research presents past issues and potential future paths for EIA in British Columbia and Canada.

The federal-provincial agreement for a harmonized process of impact

assessment established an integrated system where both federal and provincial rules are followed in a single assessment, with the intent to streamline the process so only one assessment is undertaken. The logic of the harmonized EA process is that it will save time, money and resources (CEAA, 1998, 2004a; Fitzpatrick, & Sinclair, 2005). The harmonized process is also reviewed here. The research compares and contrasts the two EIA Acts on paper as well as examines the harmonization agreement that is held between the governments of Canada and British Columbia.

The research provides a review of the EIA processes in British Columbia and Canada that outlines the strengths and weakness that exist in individual and the integrated EIA processes. The 2010 Olympic Games venue and infrastructure developments provide an excellent opportunity to study such interactions.

Recent changes in both the CEAA Act and the EAA which have aimed at making the EIA process 'more timely and predictable' may have weakened the public participatory process through the granting of discretionary powers and implementing unfeasible time restraints (Graci, & McKenna, 2005; Herring, 2005). This weakening may undermine not just the harmonization process, but the entire environmental impact assessment process. If the public (concerned parties, knowledgeable individuals, advocacy groups, or simple spectators), and First Nations cannot, or are severely limited in participating in such processes, it will be difficult to enhance procedural effectiveness, accountability, and public support for EIA. The EA processes analyzed as part of this research have repeatedly been accused of weaknesses related to public participation and follow-up procedures and attempts have been made to correct these weaknesses through legislative amendments (as

described in: British-Columbia, 2002; Canada, 1992; CEAA, 2003; Diduck, & Sinclair, 2002; Graci, & Mckenna, 2005; Herring, 2005).

In Canada, the EIA process is triggered by proposed development projects and the resulting impact assessment is undertaken by the project's proponent. In such settings bias would seem unavoidable. After all it might be perceived that the contractors who undertake the environmental impact assessments are being paid to ensure the project will be approved; they would not be in business if they continually found too many negative environmental impacts in proposed projects. Pressures often exist to ensure that the project gets done (Hanna, K., 2005). In the Olympics context, the pressure to complete projects on time to avoid the international embarrassment of incomplete venues could be quite powerful. To avoid delays in construction requires quick turn-around times in the EIA process. The research is interested in such pressures and whether or not they have a negative, weakening affect on the EIA process.

Also of interest in this research are the environmental visions of the International Olympic Committee (IOC) and the Vancouver Olympic Organizing Committee (VANOC) whose goals are examined. This paper compares and contrasts visions of the Olympic Committees with the on the ground results generated through the EIA. The environment was added in 1994 as the third pillar of the Olympic movement, it is also interesting to consider past Olympic projects to discover how the vision has been translated (IOC, 2005; VANOC, 2003). Nearly all Olympic projects require assessment by the CEAA as federal funds are involved and have triggered the legislation. Some of the projects also require assessment by the EAO as provincial

requirements have been triggered, and where both parties are involved, the harmonized environmental impact assessment process will proceed as agreed upon.

The work here considers a range of issues that are often reflected on in EIA application. The questions which arise after reviewing the Olympic EIA documents mirror the trends found in past EIA application in Canada. For example, why has only one of the thirteen projects approved thus far has been subject to any follow-up measures? Why have none of the projects undergone a comprehensive EIA (CEAA, 2006b)? Why are follow-up and monitoring not required for all EIA projects? Why on average is only one project in a hundred projects are ever subject to the full EIA process (Herring, 2005)? Conclusions about the EIA process and recommendations for the improvement of EIA policies have been offered in this study.

2 Questions and Methods

This research evaluates the effectiveness and impact of EIA regulations and practice as applied to the 2010 Winter Olympic Games venue and development projects. This work considers how assessments are conducted, and seeks to identify and highlight strengths and weaknesses of the process by contrasting the ‘on the ground results’ to best practices theories developed primarily by Noble (2006) and Sadler and the International Association of Impact Assessment (Sadler, 1996)

In this study there is an interest in developing information that can inform EIA practice. EIA is about making developments better and about making informed decisions. Impact assessment is a tool ideally used to help find a balance in the profit based capitalist system which aims to facilitate an equilibrium between economic development ‘progress’, social system health, and the ongoing protection of the environmental systems that allow human existence. This balance is always shifting as societies grow their economic systems but find that current forms of growth are unsustainable. The strengths and weaknesses of EIA may ultimately rest in the will of the people that use it and the paradigms in which they are situated.

The Olympics introduce interesting variables into development. The IOC has its own environmental vision and venue requirements, and VANOC strives to be an environmentally sustainable organization. High achievements in sports, the dissemination of peaceful culture and environmental sustainability are all important ideals of the Olympic movement. VANOC has indicated that this will be a ‘green games’ (since Sydney 2000 each games has been the ‘green games’) and have worked to sell this image. To their part, as is seen in the interviews, they are winning

accolades for their commitments to responsible development. Questions may arise regarding the sustainability of the Olympic machine which drives an ever increasing scale of development through a series of sport mega-spectacles held every two years in different cities around the world. Is there a limit to Olympic development or does the IOC consider sustainability as a sustained process of growth and development which has no limits?

This study is based on the following research questions and a set of interview question can be found in appendix A:

- What is the role of EIA in project development for 2010?
- Does EIA work to help ensure that the 3rd pillar of the Olympic movement (the environment) is being integrated into 2010 Olympic development?
- How effective has EIA been in 2010 developments?
 - More specifically, has EIA resulted in changes to development projects?
- How have the Federal and British Columbia's EIA processes interacted in the context of 2010?
- How effective is the harmonization process in integrating federal-provincial reviews?
- How effective has monitoring, enforcement, and follow-up been in EIA?
- What role does participation of interested and affected stakeholders have in EIA?
- Do pressures exist to fast track the EIA process for 2010?
 - If so, how have they impacted EIA application?

- What requirements do IOC and VANOC have to ensure adequate consideration of environmental impacts?
- What are the IOC guidelines for participant cities to follow, with respect to the 3rd pillar, and what are the consequences for non-compliance?
- What role do First Nations have in EIA?
- Have Strategic and Cumulative environmental assessment strategies informed the EIA process as applied to 2010?
 - How could these approaches improve the current EIA process?

2.1 Method

This work uses a triangulation approach to data gathering and analysis by drawing on a review of the EIA literature, public documents relating to 2010 developments, and most importantly a social survey. By using a triangulated approach, results are built on a strong foundation of different data from independent sources (Yin, 2003). This research uses a social survey based on conversational, open-ended and semi-structured formats with limited guidance. The 14 people interviewed are elites – closely involved in 2010 EIA, planning and management. This survey method is well established in a range of fields in the work of urban (Olds, 1998), economic (Schoenberger, 1991), human (Hays, 2000; Limb, & Dwyer, 2001), and social (Limb, & Dwyer, 2001) geographers and sociology's Chicago-style symbolic interactionism (Blumer, 1969; Prus, 1997; Strauss, 1993). The open-ended interview approach is helpful because it employs an adaptive questioning format. If

we can better understand how people think through an adaptive interview process* we can achieve richer results and a better comprehension of an issue's context and unique dynamics. The data presented in the discussion section of this research will be "grounded in the words of the respondents" (Hanemaayer, 2008). The interview and research questions and themes were developed through a desire to compare the current on the ground practices of Canadian EIA to the best practices mentioned above. All interviewees were asked the same set of questions though through the adaptive manner of the interview process, some respondents had additional questions posed to them, so more clarity could be found and a more comprehensive understanding could be gained.

The research is ultimately a case-study analysis. As Yin (2003) states, an often undervalued research tool in geography. In this sense, there is also an intent that the research will support the use of case studies as a valid method in geographical inquiries and in related social sciences. In addition, this study investigates the entire spectrum of Olympic venues and not just 2 or 3 of the large developments. Using this overall case study approach has allowed the results to be considered in a cumulative manner, allowing for recognition of synergy when summing up the impact of the Olympics instead of the impacts from only 2 or 3 isolated developments. This approach allows questions about cumulative and strategic environmental assessments to be more easily answered as the impacts of all the venues and developments have

* (where questions are formulated or asked depending on how the interview is progressing and on how the interviewee is responding to the questions or line of questions)

been considered. If only 2 or 3 isolated developments were considered, the ‘big picture’ would have been lost.

Any mention of systems in this work will be based in the understanding of complex systems as presented in Gunderson and Holling’s: *Panarchy: Understanding Transformations in Human and Natural Systems* (2002), which tells us that all systems are in a constant state of change and have to be more comprehensively understood, with notions of resilience, cumulative effects, steady-states, and system renewal, if we are to attempt management strategies.

Finally, ideas presented on sustainability will be based on the Brundtland report – Our Common Future (WCED, & Brundtland, 1987), on Gibson’s (2005) work on sustainability assessments, which both view sustainability as a responsibility of the current generation to not negatively effect the earth in such a way that future generations are put in risk of survival. Also incorporated are Hanna’s idea that sustainability “may be most effective not as a type of permanent objective, but as an organizing theme...” (2005, pg. 28). In other words, sustainability is not a set of guidelines but an underlying principle of planning and development which is adaptive to local conditions and will help sustain local communities in perpetuity.

2.2 Detailed Method Description

2.2.1 Interviews

Open ended and semi-structured interviews with a total of 14 elite respondents (practitioners, legislators, policy enforcers, consultants, First Nations, advocacy groups and concerned citizens – see Table 1 for breakdown of origin sector of

respondents) who were deeply involved with the EIA process has allowed a good understanding of what the different stakeholders think of the environmental assessment process. Also interviewed were members of VANOC to gauge their opinions on the EIA process, specifically in relation to the Olympics. All interviews have been recorded and prior to their undertaking, the required ethics clearance was granted. At present there exist no indicators to assess the effectiveness of policy other than the voting process. Quantitative data (Likert-scale style surveys) gathered through people will not be as useful in gauging the effectiveness of the EIA process as such a qualitative approach has questions which are too imprecise and rigid and do not allow for adaptability. Though they may provide values for quantitative analysis, they cannot fully describe how a person felt about a process, or how a person reacted to a new set of questions. When considering the small number of interviewees, which would have been inadequate to undertake a full quantitative analysis, the quantitative analysis approach is here considered too rigid and not descriptive enough to be very useful. Having said that, responses were numerically summarized in Appendix C to help identify trends. Open ended interviews are a part of a multi-pronged approach where: “The basic assumption is that the informant interprets information on the basis of his own preoccupations, needs, and values, which can be hidden or latent” (Decrop, 1999).

Table 1 - Origin Sector of Respondents

Sector Pool of Respondents	# of Interviewed From Sector
<i>Concerned Citizens – Public - NGO</i>	2
<i>Federal and Provincial Government Agency representatives</i>	7
<i>Project Proponents</i>	3
<i>Industry Consultants</i>	2

Open ended interviews, with limited guidance allowed for a broader range of answers than would a survey, and allowed for greater trust to be established. Trust raises the possibility of more confidential or personal answers and stories, which will provide the best data for analysis in this research. Crang (2003) views this type of semi-structured interview as *de rigueur* in current qualitative research and highlights several books (Hays, 2000; Limb, & Dwyer, 2001; Shurmer-Smith, 2002) that promote this method in geographical research. This method allows for the examination of the subjective understanding of respondents as well as permits an interpretation of meaning. See Appendix A for interview themes.

2.2.2 Case Study Analysis

Environmental impact assessment documents and past decisions have been reviewed in a multi-case study approach. Each project EIA is a sub-system of the EIA system whole (Figure 1 - EIA system and sub-systems), and by reviewing each individually, comparisons can be made to the broader system (Olympic development and Canadian EIA process). By analyzing the process actually undertaken in different EIAs, as well as the verdicts of those EIAs, a better understanding of the processes' biases and predispositions can be gained. The 'how' and 'why' questions of this project lend particular strength to the case study method of research (Yin, 2003). The unit of analysis of this study is the democratically enacted environmental assessment processes and their application to Olympic development. Again, it was decided that a review of all the Olympic related projects would be undertaken so a more comprehensive understanding of the Olympic system may be generated. If only two or three venues were investigated, it would not have allowed for a cumulative assessment of the impacts caused by the Olympic system as a whole.

Figure 1 - EIA system and sub-systems



2.2.3 Analyzing data

All interviews were transcribed to hard-copies to better analyze and compare this data to literature and the legislation:

- in an attempt to gain a comprehensive understanding of the EIA process from the legislative background;
- through the interpretation and application of the acts;
- and through the ideas and perceptions of those involved in the process.

This triangulation approach for gathering data leads to a solid information base for the analysis. Appendix C was created to find trends in the responses of the interviewees. The trends identified were then used as cornerstones to discover how well the current EIA systems are measuring up when compared to the developed best practices.

In an effort to maintain the anonymity of the respondents, respondent names are not being used in this thesis. It was further determined that any numbering of the different respondents could lead to their identification through backwards analysis of the responses. It was therefore determined that responses would be presented with generic titles of government, proponent, NGO, or consultant.

In the end, this research recognizes the strengths and weaknesses of the harmonized EIA process in Canada and British Columbia and, using examples from the upcoming Olympic Games, this leads to an understanding of how well these democratically legislated processes are being obeyed. This work has created knowledge that may be used to enhance federal-provincial EIA coordination and enhance EIA processes relating to spectacle events in Canada.

2.3 Research Context (History and Theory):

2.3.1 Literature review

There has been a range of writing on the weaknesses found in the EIA process. Issues such as the lack of follow-up, monitoring, public participation, and enforcement, among others are recurrent challenges (Diduck, & Sinclair, 2002;

Dipper et al., 1998; Galbraith, 2005; Gibson, 2005; Marsden, 1998; McCallum, 1987).

In the context of sports events and Olympics in particular there are limited studies available dealing with the environmental impacts of past spectacle events and those that do exist deal with lessons for future host cities (Hutton, 2001). Few of these studies were undertaken prior to the IOC adding the environment as its third pillar in its charter in 1994, though it was understood that the Olympics could bring environmental impacts before 1994 as one study of the Albertville games of 1992 points out (May, 1995). Most work relates to the impacts of the Sydney Summer Olympics held in 2000 (Kearins, & Pavlovich, 2002), though research relating to the upcoming (2008) Beijing Olympics and its accompanying impacts (Zou, 2005) has also been undertaken. Indeed, given the importance of the environment to conditions for the Beijing Olympics we can no doubt expect future research on the Olympics and the environment. It is possible that the development associated with the Olympics is subjected to internal and external pressures to accelerate completion, and inevitably the environment may suffer because of this. The literature review will also help outline the *best practices for EIA* on which a comparison to actual results have been made.

2.3.2 Legislative Context

It has been suggested (Herring, 2005) that the EIA process has a bias towards development, and does not adequately support sustainability objectives. Indeed amendments to EIA legislation in Canada work to intensify this bias (Herring, 2005). This research will therefore also undertake a review of EIA legislation. The British

Columbia EAA was developed at the same time as the CEAA Act and each has been amended numerous times in an effort of 'strengthening' the process (CEAA, 2003). This research reviewed whether the acts were strengthened through the amendments, and the reasons the amendments took place. Comparison of the acts and a review of the harmonization agreement will enable full understanding on what process will take place in an EIA and when the acts are applicable. The evolution of the agencies who administer the Acts in an effort to gauge their strategies, effectiveness and applicative accuracy will also be reviewed. This work has led to recommendations on how the respective environmental assessment agencies may improve their tactics and procedures.

3 Policy Setting

3.1 *Federal EIA History*

Formal EIA in Canada dates back to 1973 with the establishment of the Federal Environmental Assessment and Review Office (FEARO), followed by the Environmental Assessment and Review Process (EARP) and the guidelines laid out by the courts. Since 1994 the Canadian Environmental Assessment Act has been the federally administered EA legislations (Noble, 2004). All ten provinces have some form of EIA legislation and the 3 territories produced their own EIA processes. EARP was put in place by the government of Canada and administered by FEARO which reviewed proposed projects or activities “to ensure that the environmental consequences of federal governmental activities (including those private sector activities controlled by government decisions) are assessed early in the planning stage before any commitments or irrevocable decisions are made.” The process could involve up to three sequential review stages (depending on the project) which are screening, initial assessment, and public review (Robinson, 1989).

In 1984, EARP guidelines were updated to streamline and focus the process; social and economic impacts were added; redundancy checks were established; requirements for all federal governmental agencies and departments to screen all of their projects and report the results to FEARO; public involvement was stressed; and post-assessment recommendations were ordered to be followed out (Robinson, 1989). In an ongoing review process it was determined that EARP must “have greater public participation...more effective follow-up and monitoring and the effective application

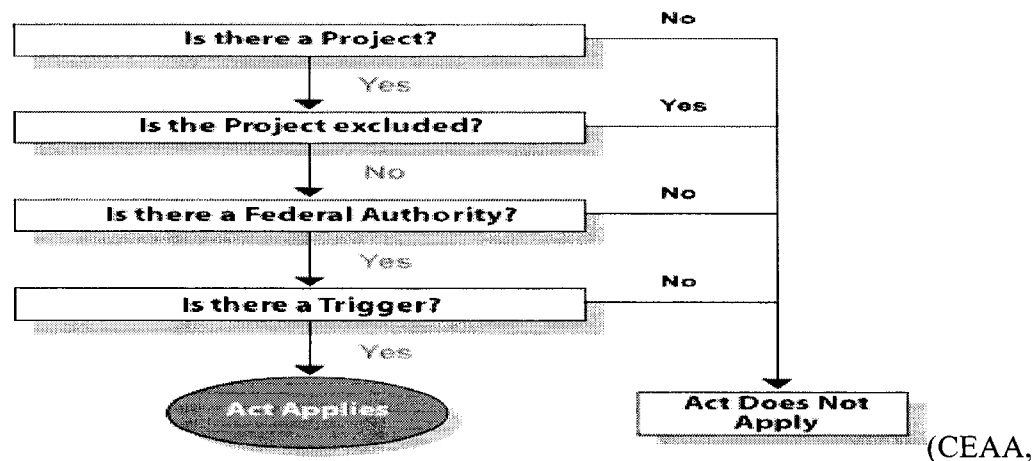
of environmental assessment concepts to policy decisions, not just to project proposals” (Robinson, 1989). These weak links in the EIA process chain are an ongoing spatial and temporal issue, and are a common theme in literature (Diduck, & Sinclair, 2002; Dipper et al., 1998; Marsden, 1998; McCallum, 1987; Wood, 2000). EARP was not legally enforceable as it was not a legislated process. In 1991 court challenges found that “EARP...was not just a set of non-binding administrative guidelines, but an instrument that had the force of law creating judicially enforceable obligations on the part of the federal government” (Delicaet, 1995). Immediately new legislation was tabled in the House of Commons and after several revisions, and several years, a new act was passed, the Canadian Environmental Assessment Act.

3.1.1 Canadian Environmental Assessment Act

The CEAA passed in December of 1994, and in January 1995 the CEAA was brought into force (CEAA, 2005a). The CEAA was last modified in 2003 (CEAA, 2006c) which brought “higher quality assessments, a process that is more predictable and timely, and more opportunities for meaningful public participation, making it an important step in the evolution of environmental assessment in Canada” (CEAA, 2003), though many believe the changes are not enough and that some of them have been negative (Herring, 2005). Who has the Act been made more predictable and timely for? Is the process now more predictable for project proponents who know their project will be approved after minimal review? The Act applies to projects or activities that “require federal permits, receive federal funds, take place on federal land, or are executed by the federal government” (Galbraith,

2005). The federal EIA adheres to the following frameworks: Figure 2 shows how CEAAct application can be determined.

Figure 2 – Does the Act Apply?



2005a)

3.1.2 Canadian Environmental Assessment Agency

The Canadian Environmental Assessment Agency (CEAA) was created in 1994 to prepare for the implementation of the CEAAct in 1995 (CEAA, 2006a). The agency is accountable to parliament through the Minister of the Environment. Its main role is to administer the CEAAct. The agency may also intervene to assist in consensus building and dispute resolution (mediations) in addition to providing administrative and advisory support for review panels, comprehensive studies, and class screenings. All the while, the agency must provide ongoing advice (guidance) to the Minister of the Environment (CEAA, 2006c). The Minister's established responsibilities include: final approval of a project; power to appoint a mediator or review panel at any stage of the process; deciding to what stage (screening, review panel, or comprehensive review) an EIA must be carried out

(CEAA, 2006c). These might seem to be powerful discretionary powers; can it be an ideal perspective to have accountability rest at the political level?

The CEAA has no real enforcement mechanisms under the Act. But a review panel may summon witnesses to give oral or written evidence. This is the same power as a court of record and can get such a summons through the federal court (Canada, 1992). Follow-up and monitoring programs are the responsibility of the project proponent, though they are difficult to track and might lead to conflicts of interest. The final decision of project approval is certainly based on the recommendations of the review-panel or a screening panel thus the CEAA has influence.

Table 2 – summary the actions at the various stages of an EIA

Stage	Action/Activity
1 – Proposal	Basic Concept of the undertaking, project requirements (energy, water), Alternatives consideration ,
2 – Screening	Is an EIA required and to what scale should one be undertaken? Class Screening applicability?
3 – Scoping (if screening determines necessity)	What the EIA will address. Issues and impacts identified, terms of reference established, gathering baseline data information. Decisions on: stakeholder consultation, methods of assessment and prediction, alternatives consideration.
4 – Proposal Assessment	Baseline data gathering, impact prediction, significance, and evaluation. Mitigation measures identified, monitoring and compliance programs outlined.
5 – Preparation, Submission, review	Information brought together and placed in the report and presented to the EIA agency for review
6 – Decision	Approval/Disapproval, recommendations from CEAA
7 – Monitoring and Compliance	Project proponent must adhere to the recommendations given during the Decision stage.

(Adapted from (Hanna, K., 2005))

3.2 B.C. EIA History

3.2.1 British Columbia's Environmental Assessment Office

The British Columbia Environmental Assessment Office (EAO) was created in 1995 to coordinate the assessment of proposed major projects that were required under the Environmental Assessment Act (EAA). In December 2002, a new EAA was introduced to provide greater flexibility and timeliness for the EIA process (EAO, 2006). The EAO is responsible for ensuring project assessments: are comprehensive and technically sound; involve all potentially interested parties; are conducted in an open, timely and efficient manner; and adhere to the legislation (EAO, 2005).

Additionally, the EAO, like its federal counterpart recommends to the Minister of the Environment whether a project should be approved or not approved. The EAO reports to the Deputy Minister of the EAO (Executive Director) and the Minister of Sustainable Resource Management, who have considerable discretionary power, which will be described in an upcoming section (Graci, & Mckenna, 2005).

3.2.2 British Columbia's Environmental Assessment Act

Prior to 1995, major projects in B.C. were reviewed under several different processes depending on the sector (Graci, & Mckenna, 2005). As noted above, the EAA was introduced in 1995, and in 2002 the act was amended to improve on the process (Graci, & Mckenna, 2005). The B.C. EAA has more enforcement capabilities than the CEAA, allowing officials not only to request a summons, but also to enter a project site to assess compliance with the EIA and to fine/arrest individuals and corporations who break the rules set out in the EIA (British-

Columbia, 2002). The process for an EIA is articulated in the Act and reflects steps similar to the federal process.

3.3 The Harmonized EIA Process

The federal and BC governments have attempted to harmonize their EIA process when a project would be subject to both EIA Acts. Harmonization allows for only one impact assessment to be carried out with the reasoning that such a practice would save time, money and other resources. Such a single impact assessment would conform to both the federal and provincial laws while eliminating over-lap and redundancy.

3.4 Regional Land and Resource Management Plans

Though land use plans are not the direct focus of this thesis, strategic planning including environmental impacts of proposed development and land use options is of vital importance in recognizing cumulative environmental impacts and system stability. Recently the B.C. government has been working to finalize agreements on Land and Resource Management Plans (LRMPs) in the province. A review of the Integrated Land Management Bureau's (ILMB) web page shows that they have completed 73 Strategic Land and Resource Plans, the Sea-to-Sky LRMP (S2S-LRMP) among them (Integrated-Land-Management-Bureau, 2008g). There was some discussion in the interview process that the agreements made under the S2S-LRMP were being upset due to the Olympic developments.

Through a review of the S2S-LRMP document it was difficult to establish direct contradictions to the S2S-LRMP with the on the ground developments though

there are some areas of concern. One main area of concern, which will be discussed here, is the area surrounding the Callaghan Nature Conservancy (which lies in two parts – one north of, and one south of the Callaghan Valley provincial park) which was established through the S2S-LRMP process. The Southern part of the Callaghan Conservancy is tightly adorned to the east by a ‘Front Country’ and ‘Cultural Management Area’ which contains the Olympic Nordic Center, and to the West by a ‘Wildland’ Area (Integrated-Land-Management-Bureau, 2008b, 2008e).

The S2S-LRMP defines a ‘wildland’ area as one that allows tourism and subsurface mining to take place (Integrated-Land-Management-Bureau, 2008a). For mining to take place, roads must be constructed which should have access control mechanism in place, and for tourism to happen, in the very least, trails must be built.

Front-country areas are defined as:

“part of the All Resource Uses Permitted Zone. It is an important part of the timber harvesting landbase in the Plan Area. Mining, aggregate development and power generation projects are also recognized uses....development will be undertaken in a manner that maintains a high quality visual experience” (Integrated-Land-Management-Bureau, 2008a, p. 88).

The list of features of what makes a high quality visual experience is not included in the document, but by allowing timber harvesting and mining, the quality of aesthetics will surely be negatively impacted.

One management process that was recommended by the S2S-LRMP is the Coordinated Access Management Plan (CAMP). The CAMP tool is used to lay out how roads are accessed, what roads are accessed, and why roads are accessed. Currently CAMP is only in a draft form, out for public review. First Nations were not part of the CAMP process as they have a separate process for their interests but CAMP must follow the agreements reached with the First Nations, and vice-versa.

Why these processes were not harmonized is questionable as (Figure 3 shows) Squamish and Lil'wat Nations have overlapping Territory Claims in the Whistler Area, Squamish and Musqueam and Tsleil-Waututh have overlapping traditional territory in the Vancouver Area. (Integrated-Land-Management-Bureau, 2008c).

The CAMP document has an interesting statement that is also explored in Kellar (2007) which deals with human impact on wildlife population levels and extirpation:

“However, this roaded access can also bring people and noise to important wildlife habitat which can result in the wildlife abandoning habitat which may be critical to their survival. Roaded access can also create issues with motorized vehicle access to alpine areas, parks, or other sensitive areas” (Integrated-Land-Management-Bureau, 2008f, p. 4).

The S2S-LRMP states that: “unroaded portions of the Callaghan Creek watershed contain critical grizzly bear habitats” (Integrated-Land-Management-Bureau, 2008a, p. 77). And the S2S-LRMP shows that the Squamish-Lillooet Grizzly Bear Population Limit recovery area surrounds the conservancy (which is not part of the excluded zone – not meant for grizzly bear rehabilitation as areas in the excluded zone are largely residential) (Integrated-Land-Management-Bureau, 2008d).

Basically, the Olympic Nordic Center has been constructed in an area directly beside a newly established conservancy and is being accessed by newly constructed or renovated roads. The labyrinth of recreational trails will be constructed in areas directly beside the conservancy and ‘wildland’ zones. The CAMP process recognized the negative impact humans can have on Grizzly bears and other wildlife through human contact and noise, mainly brought on by roaded access and the S2S-LRMP has a Grizzly bear recovery plan which includes the lands around the Nordic Center.

Since Grizzly bears and other wildlife do not recognize boundaries drawn onto maps,

a question arises on how wildlife will avoid being negatively impacted by the activities allowed under the S2S-LRMP and the desired future uses of the Olympic Nordic Center which will bring in a multitude of human visitors, arriving by road.

One method for reducing impact was outlined in the CAMP document:

“Some areas may have spring access closures to protect grizzly bears on important spring forage areas. Forestry crews will be allowed into the closed areas for the purposes of conducting seasonally required survey work, monitoring and tree planting operations. Similar “exemptions” can be made for mineral exploration activities above the proposed control points because the expected level of use associated with these activities is not expected to result in displacement of grizzly bear from these areas” (Integrated-Land-Management-Bureau, 2008f, p. 19).

Closing roads during the time which are ‘most important’ for Grizzly may work to reduce impacts on the Grizzly during those periods, but the rest of the year they will be impacted.

The conclusions regarding the limited impact of small scale exemptions are misguided. Most obviously, the exemptions listed for mining exploration (which would lead, if a financially viable mineral deposition was found, to a mine) would have severe impact on the Grizzly population in the area and would be in direct contravention to the S2S-LRMP agreements.

The impact on Grizzly Bears, which will be brought on by a huge influx of visitors to the Callaghan Valley because of the Olympic Nordic center, is at the moment unknown. The CAMP process, initiated by the S2S-LRMP recognizes the impact on wildlife through human contact, and surely there will be much more human contact with an increase in visitor numbers. Is the Olympic Nordic Center in contravention to the S2S-LRMP, or there a concerted effort to ensure development continues by ignoring the limits of wildlife to recognize human made boundary lines

and the cumulative impacts continued human development has on other animals' habitat?

3.5 *IOC Expectations*

In 1994 the International Olympic Committee (IOC) recognized the importance of the environment and added to its charter environmental protection as a third pillar of the Olympic movement. The other pillars are sport and culture. The third pillar is defined in terms as to: "encourage and support a responsible concern for environmental issues, to promote sustainable development in sport and to require that the Olympic Games are held accordingly" (IOC, 2005). The IOC requires host cities to include environmental protection ideas in their bids, which are checked by the Environment Commission.

Once a city is chosen, the IOC works with the organizing committee to ensure that the "Games do not have a negative impact on the environment, but also to help improve the environment and leave a green legacy" (IOC, 2005). A host city must show that they are committed to environmental protection throughout the development for the games and during the games. However, since these requirements have been put in place, have they been met? What are the consequences of not following the green rules of the IOC? No research has been undertaken to answer these questions, and representatives from the Vancouver Organizing Committee were unaware of any consequences. Also, no one from the IOC was available to answer these questions.

3.6 *Vancouver Organizing Committee Environmental Vision*

The Vancouver Organizing Committee's (VANOC) environmental vision would seem to be in-line with the IOC's. Both are based on principles of sustainability, though admittedly this can be a vague goal to apply in practice – especially when considering that the Olympics are a two week global spectacle event. Nearly all Olympic projects will be subject to the CEAA, since the government of Canada is providing funds for the projects and federal funding is a CEAA trigger. Initial EIAs' show little negative impacts (given proposed mitigation efforts) as all the projects were approved at the screening level of the CEAA. Other VANOC goals are to keep 90% of the Games' waste out of landfills, reclaim brown-fields for the Olympic Village (as part of a major 'clean-up' and 'redevelopment' of the inner city) and the use of Geothermal energy as a major source of heating in the Whistler Olympic Village (VANOC, 2003).

3.7 *VANOC Board of Directors*

The comments provided by some respondents and Vancouver based critics of the Winter Olympics suggest that the Olympic machine has largely become a neoliberal tool for driving real estate development and land expropriation. In this vein it is helpful to know who the individuals are that are making the decisions at VANOC to see if the conclusions are plausible.

The VANOC BoD consists of 20 people. These people were nominated by the Canadian Olympic Committee (7); the Government of Canada (3); the Province of British Columbia (3); the City of Vancouver (2); the Resort Municipality of Whistler

(2); the Canadian Paralympic Committee (1); a joint appointment by the Band Councils of the Lil'wat and Squamish Nations (1); and one member nominated by the other 19 members (VANOC, 2008).

As table 9 in Appendix E indicates, VANOC BoD members come from a varied background. It is notable that at least at least 8 are well connected to the real estate and development industries. It is certainly understandable that VANOC sought members that understood development and construction as the Olympics does require mass amounts of development to occur in a short time frame, and any such undertaking needs to be overseen by those with knowledge in the field. None of the biographies provided for the VANOC BoD members indicates that any has had university level certifications, or training in sustainability, environmental resource management and related fields, or social-system well being or complex systems health and related fields. Nor do any of the biographies available indicate that any have a substantive background in social or environmental philanthropy.

With the 3rd pillar requirements laid out by the IOC and these facts about VANOC's BoD, questions arise about the true catalyst for entering the contest to bring the games to Vancouver. Was it to show off the beauty of the region and the culture of its peoples; to promote sustainability and environmental stewardship; to empower the inhabitants of the region, and play host to excellence in sport? Or was it to engage in a series of real estate developments geared towards profit accumulation and the acquisition of land for a few?

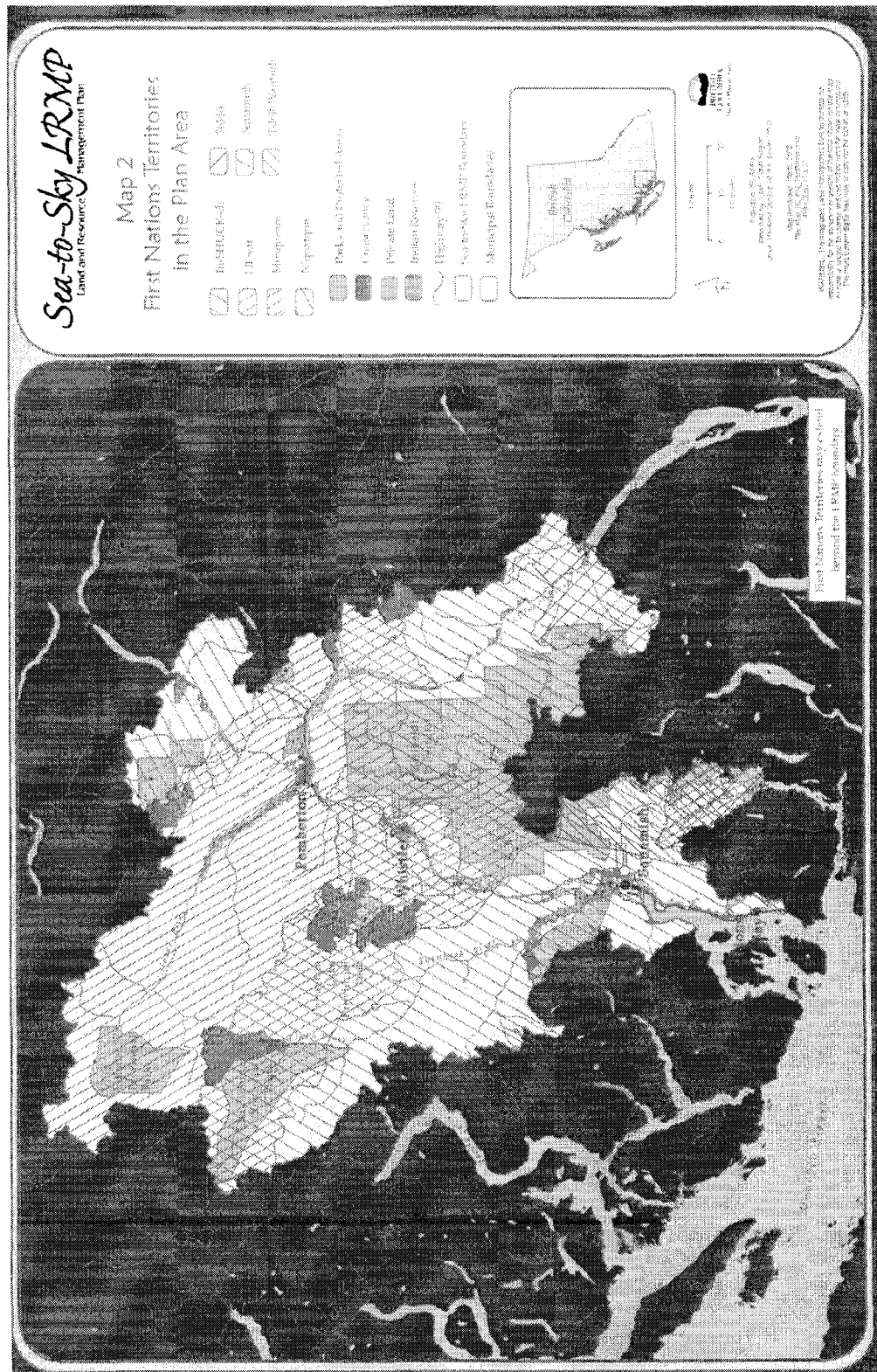
These are troubling questions that may not be readily answered for some years after the Olympics have ended. But they are questions that many EIA scholars would suggest can and should be addressed by an effective impact assessment process.

3.8 *Four Host First Nations*

The 2010 Winter Olympic Games are being held on the shared traditional territories of the Lil'wat, Musqueam, Squamish, and Tsleil-Waututh (Burrard Band) First Nations, known as the Four Host First Nations Society. Many members of the First Nations, as will be discussed further into the discussion section of this thesis, have benefited in multiple ways due to the 2010 Olympics. They have been awarded land and development rights in the Whistler, Squamish and Pemberton areas; they have been awarded construction contracts and material supplies contracts; they have had timber from the Sea-to-Sky Highway improvement project delivered to them; and perhaps most importantly (constitutionally at least), attempts have been made to meaningfully included them into planning and development processes which will impact their traditional lands. It appears a new area of cooperation has been established between First Nations and the Provincial Government of British Columbia. If this increased level of cooperation would still have been established regardless of the Olympics, or if the Olympic venues were not constructed on unceded First Nations lands, is an open question. There is still resistance to the Olympics from groups within the First Nations and this will be discussed later. The Leaders of the First Nations are full partners in the Olympic bid and development process (Four-Host-First-Nations, 2008) and in figures 3-7 the traditional territory of

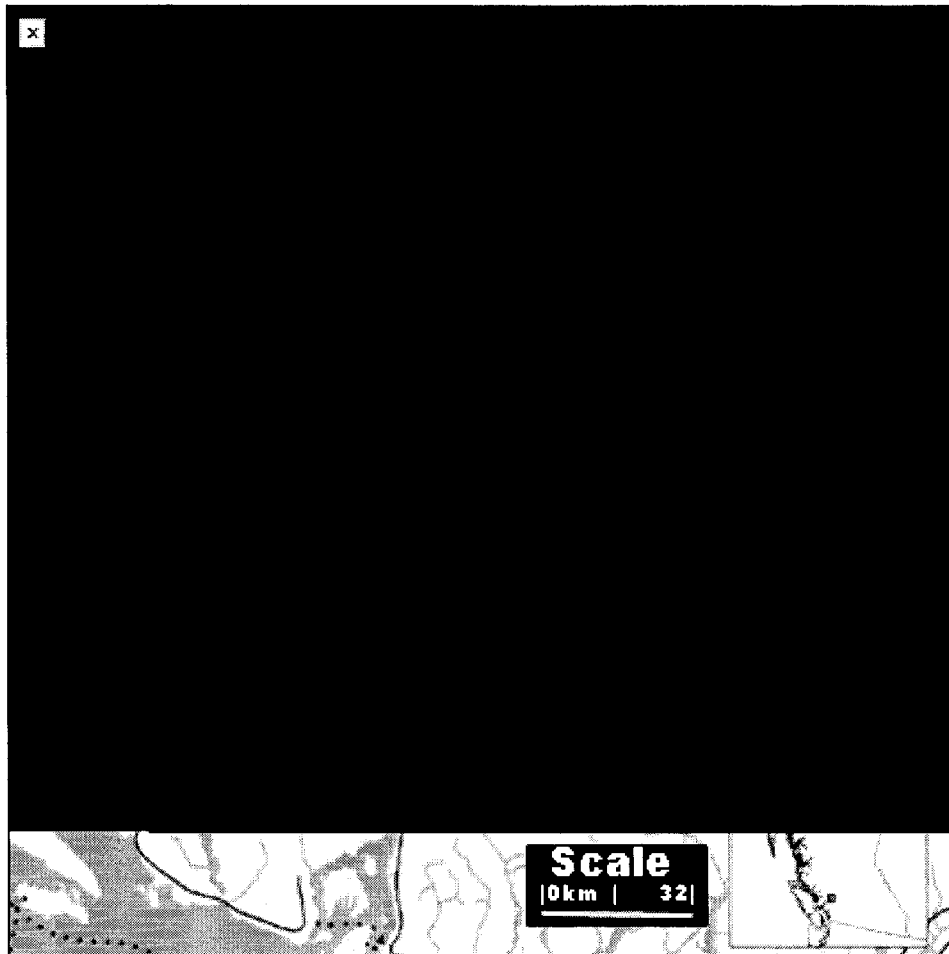
each nation (as put forth in their Statement of Intent for the land claim process) is outlined.

Figure 3 - Traditional Four Host First Nations' Territory



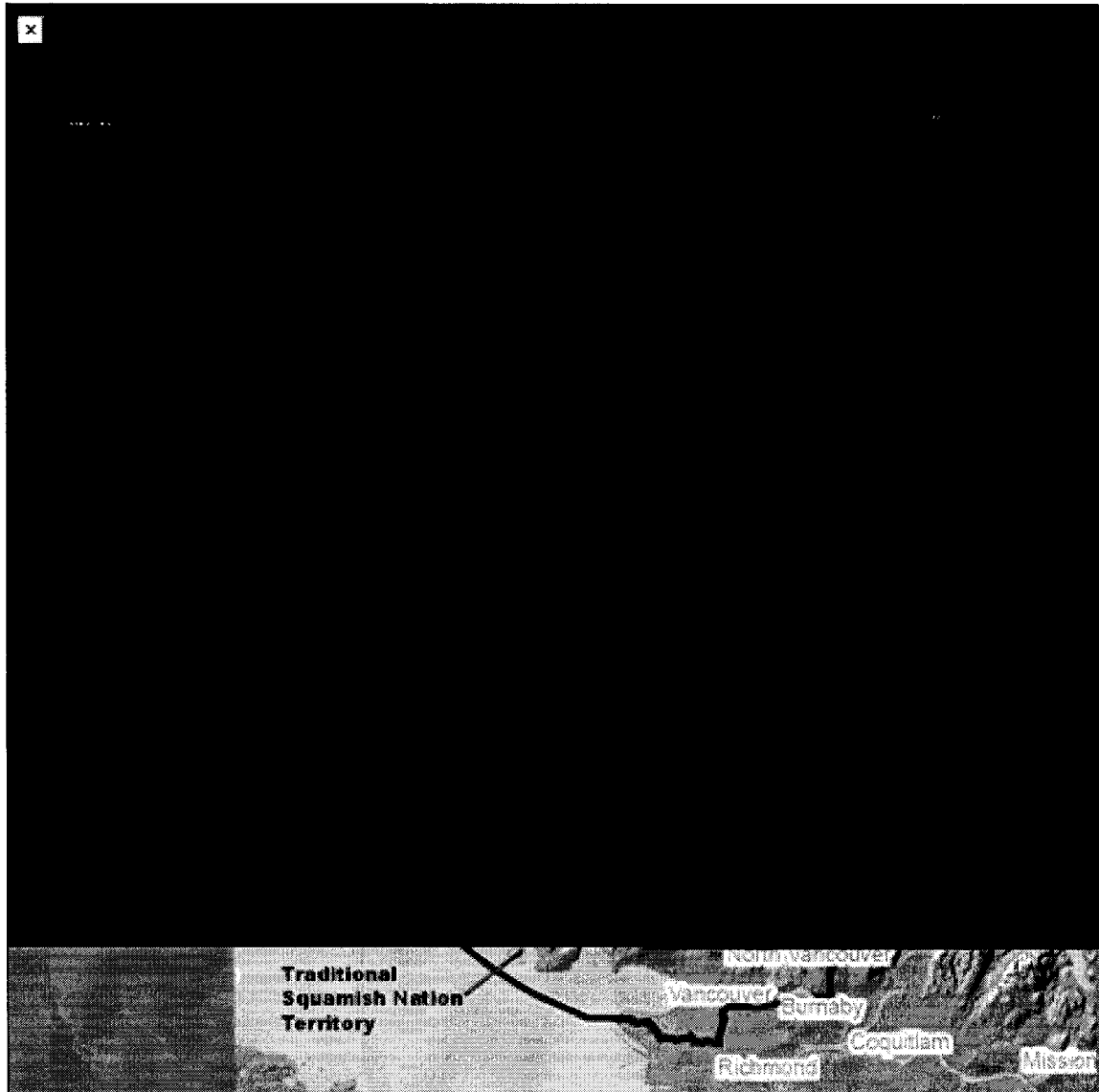
(Integrated-Land-Management-Bureau, 2008c)

Figure 4 - Traditional Lil'wat Nation Territory



(Original Image sourced from: Lil'Wat, 2006)

Figure 5 - Traditional Squamish Nation Territory



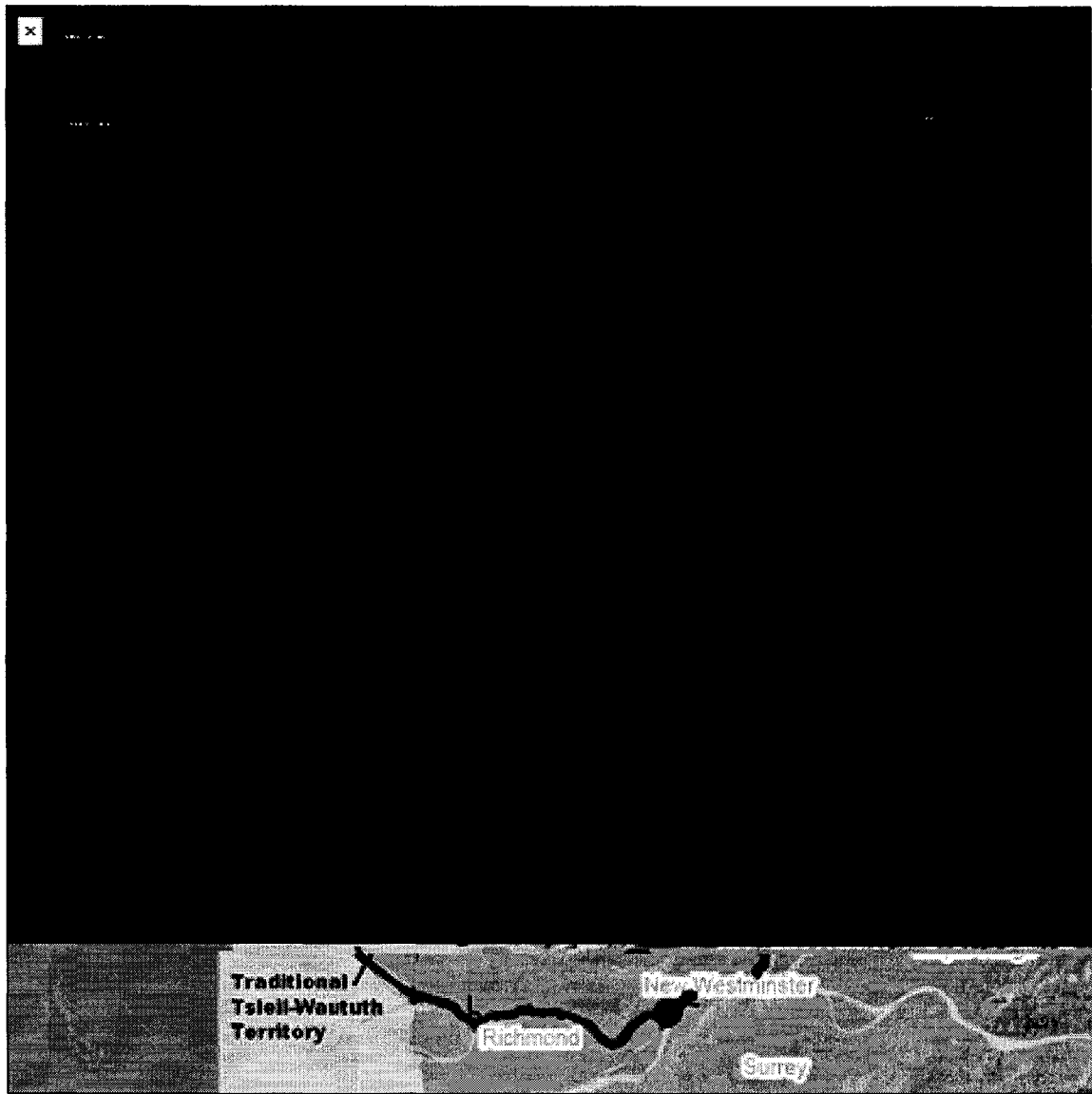
(Original Image sourced from: B.C.-Treaty-Commission, 2008)

Figure 6 - Traditional Musqueam Nation Territory



(Original Image sourced from: B.C.-Treaty-Commission, 2008)

Figure 7 - Traditional Tsleil-Waututh Nation Territory



(Original Image sourced from: B.C.-Treaty-Commission, 2008)

4 Literature Review

4.1 *Weaknesses and Strengths of the Federal EIA Process*

4.1.1 Weaknesses

There have been a number of studies, writings and discussions which are critical of the Canadian Federal EIA process (eg. Diduck, & Sinclair, 2002; Dipper et al., 1998; Gibson, 2005; Graci, & McKenna, 2005; Herring, 2005; Marsden, 1998). These reports have also consistently identified similar weaknesses on a temporal scale. A report from the IAIA noted that all EIA systems suffer from weaknesses, there is a world-wide trend of similar weaknesses (Sadler, 1996); a spatial element is thusly added to the problem. As noted above the CEAAct has undergone three amendments yet the same weaknesses that the amendments were to strengthen are still an issue. From a development mindset, the CEAAct works very well in promoting sustained economic growth, but from a more comprehensive sustainability mindset, that ‘strength’ is a weakness (Herring, 2005).

The IAIA report (Sadler, 1996) noted that the following weaknesses were common to many EIA systems around the world:

- building quality control mechanisms in the post-decision EIA process, (e.g., monitoring and follow-up);
- strengthening the weaker links in the pre-decision EIA process, (e.g., scoping);
- closer integration of environmental, with social, health and other impacts;
- tailoring public involvement to the issues and parties involved;
- communicating the results of EA to decision makers, and the public in clear, user-friendly language; and

- practical frameworks and methods to address cumulative effects and large scale changes (Sadler, 1996).

Each one of these will be explored in the Canadian context as each has been studied by different researchers.

Public participation, or lack thereof, emerges as being particularly important. In the most recent amendment to the CEAA (2003) turn around times for assessments were shortened. This was done primarily by reducing public comment periods by half and limiting public participation in the screening stage -where 99.9% of EIAs are approved (Herring, 2005). With limited funding (for panel reviews only), limited time, and limited access it can prove difficult for the public to have an informed voice in the decision making process, if they are allowed a voice at all (Diduck, & Sinclair, 2002).

At the screening stage, public notice of the application is discretionary and rarely occurs (Sinclair, & Fitzpatrick, 2002). But when “public involvement is deemed appropriate, notice must be published in the Canada Gazette. In the case of comprehensive studies and hearings, notice in the Gazette is mandatory” (Sinclair, & Diduck, 2001). The CEAA is required to provide the notice when it is actually required and the Canadian Environmental Assessment Registry does a good job in informing anyone who is interested in the project. Sinclair and Diduck (2001) also found that even though the CEAA encourages early public consultation, they do not themselves consult with the public, instead they require the proponent to engage the public and attend open houses and meetings at their discretion; a ‘do as we say, not as we do’ approach. Also identified was that governmental assistance delivered to project proponents was disproportionate to the help provided to the public and that

“their work in early stages of the EA process was almost exclusively directed to dealing with proponents” (Sinclair, & Diduck, 2001).

In recent years Traditional Ecological Knowledge (TEK) has also been incorporated into the EIA process – at least somewhat. First Nations have been able to place their unique perspectives and connections to the land into EIA deliberations. However, at least one study has found that as beneficial TEK might be to the EIA process, it was often not sought and it is not legislatively required: “It would be beneficial if governments sought community participation and federal legislation may be able to accommodate Aboriginal cultural paradigms of the environment” (Paci et al., 2002). It can be appropriate and helpful to use the knowledge and advice given by the people who depend on the land for their survival as they have the most to lose; a conflict of interests (profit over environmental responsibility) might be less likely to dominate EIA deliberations. TEK may be in the unique position of being able to bridge historical observations and western science. Baseline conditions that can be placed into western based research could be gauged based on the knowledge passed down through generations of traditional communities. Using TEK can further allow for the identification of possible impacts through prior knowledge and a familiarity with the region’s ecosystems and inhabitants. To properly gauge the significance of potential impacts, the historical and cultural knowledge and traditions of the long-term inhabitants must be consulted.

The inability of the current CEAAct to assess the cumulative effects of many projects on an area, over a long time-period, has been identified as a weakness. A study dealing with cumulative impacts in the United States found that legislation

generally does not require cumulative impacts to be assessed, or there is uncertainty on how to address such impacts (Burris, & Canter, 1997). Canada's weakness in this area is the same as in other jurisdictions. While there are requirements in federal impact assessment legislation for cumulative impacts to be assessed; those who scope the projects have discretionary powers as to how large the cumulative area to be assessed will be (Herring, 2005).

Under federal EIA rules, only projects that require post-screening assessments must undertake follow-up procedures. And since only 1 in 100 projects are ever subjected to the full EIA process, we can ask how are impacts ever monitored? This is a problem for cumulative environmental impact assessment (CEA) and a major weakness in the CEAAct, for without monitoring impacts from smaller projects; it is difficult to assess where an impact is originating from, and how it might be mitigated

There would seem to be a need for monitoring to be done, especially to be able to predict and assess cumulative impacts. Proper monitoring is also weak even when it is required. Impact prediction has been criticized for its reliability because many impacts are not easily testable for a variety of different reasons (including lack of base-line data, time restrictions, difficulty in data accumulation) or the impact did not materialize as predicted (eg. Gibson, 2005; Noble, & Storey, 2005). If monitoring is actually required, what is monitored could become a problem as impacts may not have been predicted and added to the list of monitoring requirements. Wood (1999) argues that to improve the EIA process, more auditing must take place. This would require more EIAs be carried out in full so that the

techniques may be practiced; in effect Wood (1999) uses the widely believed, common sense idea that 'practice makes perfect.'

The discretionary power of the Minister is a potential weakness, though there may be different perspectives on this. Final project approval lies in the hands of the Minister of the Environment. The Minister also decides: if a project should be subject to the full EIA process; who should be included in a panel review; if there is to be a panel review; and the scope of the assessment. Pressure from industry and governments to use this power for their benefit might exist. It can be hard to avoid such pressures while development and economic growth drive our sense of economic well being (Dale, & Hill, 2001).

Project scoping is one area where discretionary power can be used. Herring (2005) presented a case where a narrow scope was used to examine two related bridge construction projects, but treated as independent of each other. He also indicates that the responsible authorities scoped projects narrower than prescribed in the CEAA guidelines and that neither the cumulative impacts of the bridges, nor of their granting of access, were considered.

It is interesting that Chief Executive Officers of Canadian mining companies did not view the EIA process as burdensome (Annandale, & Taplin, 2003). They understood the importance of following regulations to avoid future clean-up costs (which would amount to much more than current EIA costs) but did not find the EIA process to be a burden to their business (Annandale, & Taplin, 2003). Some might interpret these results as having a project approved under the current EIA process is too easy and agree with Herring and others who believe that the CEAA is based on

a development paradigm, with little regard to sustainability. Else wise the EIA process would be a burden to industry. It is also possible that going through the EIA process will help uncover unanticipated problems that the project may cause, thus saving time, money, and other resources in the long run.

Reading through the CEAAct, the word sustainable comes up only in the preamble, purposes, and the definitions but it is nowhere in the legal requirements. The Brundtland Report's definition for sustainable development "meeting the needs of the current generation without compromising the ability of future generations to meet their own needs" (WCED, 1987) is used in the definition section of the interpretation (Canada, 1992). There is, however, no path set out in the Act as to how sustainable development is to take place, just that it is to be sought. Gibson (2005) critiques multiple sections of the CEAAct (as referenced above) and also goes a step further by discussing the complex systems ideas of Gunderson and Holling and James Kay and how the CEAAct does not effectively address complex systems through the inadequate application of cumulative effects assessment.

4.1.2 Strengths of the CEAAct

Two strengths of the CEAAct are easily apparent. First, the Act is broadly applied. Any use of federal government funds, lands, or regulatory interests automatically triggers the EIA process (as described earlier) which means many projects are subjected to, at the very least, a screening stage. A second strength is the potential for decent and effective public participation but it needs to be accepted and improved by enhancing funding and lengthening the participation timelines. It was concluded that "equal opportunity to participate and opportunity to have arguments

evaluated in a systematic fashion” existed when the public participation element was allowed in an EIA (Sinclair, & Diduck, 2001). Continual weakening of the requirements for public participation through amendments, after calls have gone out for its strengthening does not make much sense. What is needed is an amendment that will actually strengthen the public participation process through allowing more participation earlier on and supplying more financial support to help even the playing field.

Other areas of strength identified by Sinclair and Diduck suggest that the requirement for the proponents to distribute accurate and complete information are useful (2001). They also see the pertinent and truthful information to government and public was well intentioned. But without any capacity for enforcement or monitoring for poor quality information, this strength may be potential rather than consistently demonstrated.

4.2 Weaknesses and Strengths of the EIA Process in B.C.

4.2.1 Strengths

The enforcement capabilities of the BC EAO appear to be a primary strength of the EAA. As was outlined above, the powers the EAO possesses concerning enforcement suggest that the EAA goes one step further than the CEAA Act. BC outlines possible punitive actions for failure to follow an EIA, to give false or misleading information in the creation of an EIA or to start a project without an EIA certificate (EAO, 2003). One review found that no enforcement activities have taken place (Graci, & McKenna, 2005). This may indicate that proponents have followed

all the rules and requirements perfectly, or perhaps the fact that enforcement capabilities exist in the EAA makes it a more robust act that people will not attempt to violate. Alternatively, enforcement is weakly applied.

In BC the Minister of Sustainable Resource Management can suspend an assessment to allow other investigations to be completed. This is a strength of the BC system as it allows for legislated timelines to be extended so all available information from parallel studies may be considered in the EIA. The CEAA Act does not allow for such timeline changes. The EAA also has potential strength in the upfront requirements for proponents; for any project the proponent must complete a terms of reference which allows for specific information to be passed along to the review process, of course such information will be different for each project.

Just prior to EAA amendments, a study found that the EIA process “reflect(s) a poor integration of First Nations people in the EA decision-making process with respect to mine development” (Baker, & McLelland, 2003, pg. 581). Another study found that integration of First Nations people, and their knowledge had become an important tool in the EIA process to ensure success and indicated that TEK integration: “will be formalized in relations to current activity in British Columbia where Aboriginal communities and two levels of government are negotiating a balance between indigenous and state aspirations to find complementary and sustainable mechanisms for environmental assessments” (Paci et al., 2002, pg. 112). Graci and McKenna (2005) see these amendments as positive force for ensuring First Nations integration (though at the time their paper was published it was difficult to

assess the effectiveness). Hopefully new studies will emerge to provide an update as to the effectiveness of the 2002 amendments.

Like the CEAA Act, the EAA has the potential for public participation with a stress on early integration of the public into the process. Requirements exist for comment periods, information distribution, and if required, an opportunity for issue resolution (Graci, & McKenna, 2005). However, recent amendments to the EAA may have weakened public participation in the EIA process.

4.2.2 Weaknesses

As mentioned above, recent amendments to the EAA give powerful discretionary powers to the Executive Director. This power allows the director to make decisions on the terms of reference, pushing the decision making power of the elected official to the end of the process where it may make little difference. The Executive director may waive EIA requirements for proponents which could lead to intense political and industrial pressures (Graci, & McKenna, 2005), especially as it relates to completing Olympic projects. Other discretionary powers given to the Executive Director include: how a project should be assessed; what issues are to be addressed, who should be consulted; and when the consultation is sufficient (Graci, & McKenna, 2005). Though a requirement for public participation does exist, it is now up to the EAO to decide how much public participation is required and can dictate when 'enough' public participation has taken place. This does not come across as a very effective means of collaborating with the public to ensure their concerns are met.

The forest sector is a major industry in British Columbia, but the EAA does not apply to forest harvesting activities (EAO, 2002). But other industrial activities

are included, such as some mining, fishing and water use. Even forest product processing activities are included in the Act. However, Hanna (2008a) suggests that other review and end use planning processes provide an EIA like function for assessing forest industry activities. It is not a requirement in the EAA to assess cumulative impacts. The words 'sustainable' or 'sustainability' do not at all appear in the BC environmental assessment legislation. These omissions raise questions as to the overall intention of the act to protect the physical, social, or economical environments from uncontrolled, incremental and ultimately unsustainable development.

4.3 Strengths and Weaknesses in the Canada-B.C.

Harmonized EIA Process

As noted above, Canada and B.C. have reached an agreement for harmonizing the EIA process to streamline it by avoiding procedural overlap and wasted resources. Reports concerning the effectiveness of harmonized assessments throughout Canada have not been encouraging. Some groups believe that the harmonization takes away the independent aspect that the federal government provided (in the Case of Red Hill Valley Expressway in Ontario) and others have found that the lack of true integration has caused confusion in the process (eg. Fitzpatrick, & Sinclair, 2005). Even within sections of an agency, or between agencies working on the same project there is no clear acceptance on the usefulness of the integrated process (Fitzpatrick, & Sinclair, 2005). Chambers and Windfield note that redundancy in multiple processes provided an appropriate back-up in the case of failure in one framework (Fitzpatrick, &

Sinclair, 2005). Clearly this process is still in its early stages and only time will dictate its effectiveness.

Since only one assessment takes place under a harmonized process, it is still possible to overlook potential impacts, or positive steps, if both processes overlook them individually. Herring (2005) argues that the current bias of the CEAAct tends to favour development over sustainability as it is proponent driven; while an apparent weakness of the B.C. EEA is that it grants the Executive Director of the EAO the power to waive EA requirements leading to the possibility that he will be subject to political and industrial pressure (Graci, & Mckenna, 2005); the former pressure is especially important in relation to the upcoming Olympic Games. In the most recent revisions of the respective Acts, public participation has been severely curtailed. In the CEAAct, an effort to accelerate turn around times and 'predictability' has led to cutting public comment periods in half (Herring, 2005), while in B.C. the decision to include public comments or decide when public comment periods terminate falls solely in the discretionary powers of the Executive Director (Graci, & Mckenna, 2005). Neither of these 'advancements' lead to stronger individual or harmonized processes. Again it is seen that public participation is a major problem in the EIA process as both Acts seek to limit it, which has already been stated as contrary to the wishes of the public who have opined on the issue.

There are strengths in this harmonized process: one act may apply when the other does not; for instance the CEAAct does require some public participation; and in the B.C. EEA legal enforcement is an option; also the pre-application stage in the B.C. EEA is described very well with specific instructions (Graci, & Mckenna,

2005). The strongest area of the harmonization process is that: “since the agreement does not provide for delegation of authority, each government retains its ability to make decisions regarding a proposed project on matters within its own legislative authority” (CEAA, 2004a); even if one agency allows the project, the other may deny it, though as will be stated in the interviews undertaken for this research, and from what can be gained by document analysis, the same conclusions are always reached.

“At the end of the day the provincial and federal governments have, although they are making separate decisions, always come up with the same outcome.”

4.4 ‘Best Practices’ in EIA

The ‘best practices’ in EIA (See Figure 8 - EIA Best Practice) are a fairly loose set of locally adaptable guidelines that have been developed in an effort to increase the effectiveness of EIA to actually reduce environmental impacts. Noble (2006) has most recently outlined best practices in EIA using his own work and the work of the International Association of Impact Assessment and Sadler (1996). Noble (2006) notes that EIA is not intended to eliminate all environmental impacts before a project may proceed as that will ensure few developments ever take place. He suggests that “EIA is intended to: systematically identify and predict impacts from a proposed development; find ways to avoid or minimize significant bio-physical or socio-economic impacts; identify, enhance and create potentially positive impacts; and ensure that development decisions are made in the full knowledge of their environmental consequences” (Noble, 2006).

Noble outlines ideal EIA long-term outcomes and short-term outputs. Short-term outputs include: improving the design of the development; predict, avoid, and

minimize negative impacts of the development; ensure environmental factors are addressed. Long-term outcomes, which are “the products of consistent and rigorous EIA application” (2006, pg.4) include: protecting the productive capacity and health of the system in which the development will take place; and facilitating participatory and sustainable approaches to development (Noble, 2006).

Figure 3 provides a schematic of EIA ideals as an adaptable set of guidelines incorporating participants affected by a development. EIA is to be an open and transparent process that is locally administered for specific conditions and situations. From this guide, drawing the following conclusions is easy: Documents that are created by EIA consultants should incorporate all levels of input and they must be reviewable at all levels of participation, in any set timeline, without the aid of experts; social, cultural , economic and environmental impacts must be considered as all are foundations for system health; EIAs must be scalable so resources are not inordinately used on small projects that have little potential for impacts while large projects which actually do cause system failure and renewal are left with little resources or are exempt from the EIA process all together (credibility, rigorous, systematic).

While ‘best practices’ are not ‘set in stone’ and can be quite fluid, the basic ideas presented by Noble (2006) can certainly be applied to all projects including those associated with the Olympics.

Figure 8 - EIA Best Practice

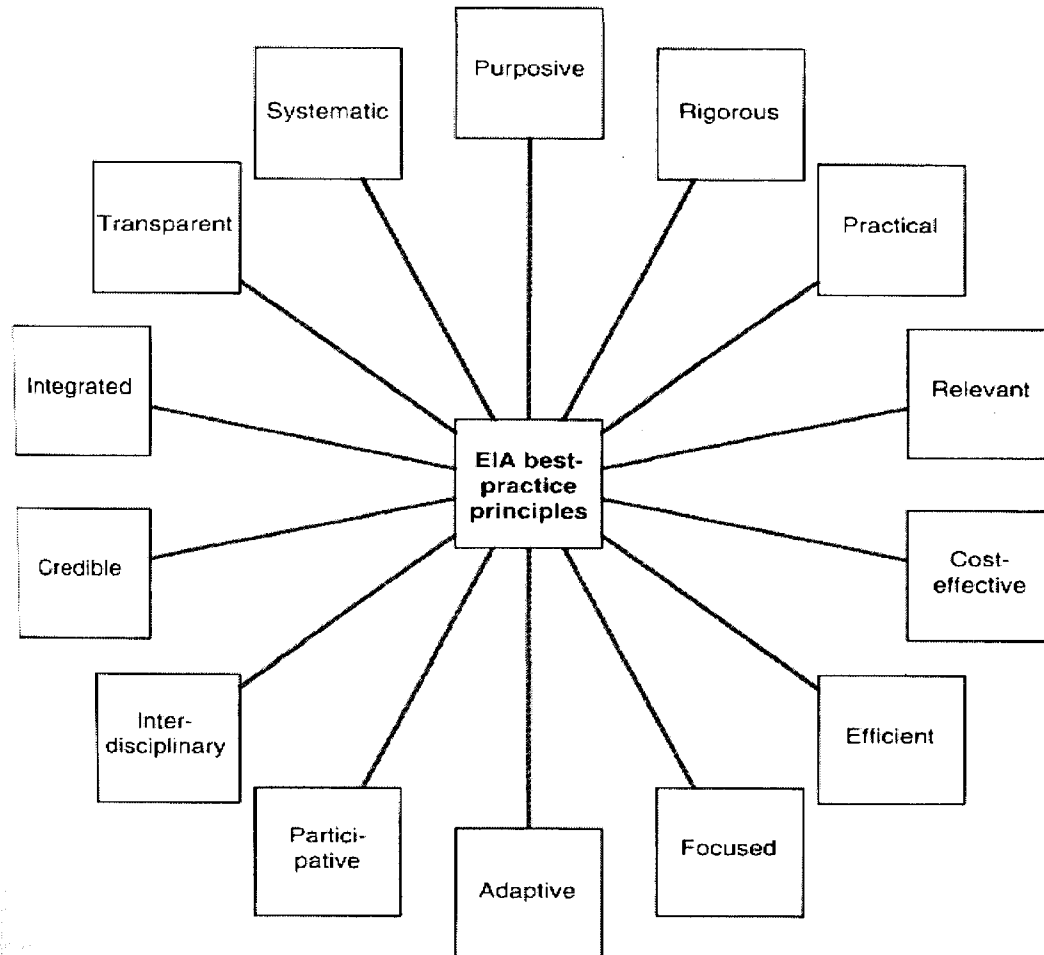


Figure 1.1 Basic Principles of 'Best-Practice' EIA

Source: Based on IAIA and IEA (1999).

(Noble, 2006)

4.5 Environmental Impacts and the Olympic Games

The 1994 Lillehammer Olympics (the *White Green Games*) were not subject to the 'third pillar', but the organizers were conscious of environmental concerns. For example, heat generated from air conditioning was recycled to other venues and venues were built where they would produce the least impacts. In no small part this likely reflects Norway's generally proactive approach to environmental policy. In

Nagano (1998) volunteer uniforms were made of recycled materials, and high efficiency refrigeration units were used for iced surfaces. During the Sydney 2000 games solar panels powered the Olympic village and recycled materials were used to build it. Four million trees were planted and brown-field sites were reclaimed and the organizing committee won an award for environmental excellence from UNEP. At Salt Lake City in 2002 recycled heat was used for the showers and many trees were planted. In Athens 2004 eco-friendly building materials were used as global resource protection was taken into account, eco-friendly transportation was used, and educational programs were established.

At the most recent games in Turin, Italy in 2006, organizers, obtained ISO 14001 and EMAS certifications, established a zero net emissions (climate-neutral) program to offset greenhouse gasses produced because of the games and a strategic environmental assessment process was initiated for all projects associated with the games, and the games themselves. All the above games complied with their respective national EIA standards, and were deemed successes for the environment by the IOC (2005). But little academic research has been done to follow-up on the actual environmental impacts of the Olympics and associated developments. Some research shows that IOC commitment does not necessarily ensure results as the 1992 Barcelona games dropped social and environmental concerns from their master plan entirely amid political pressure of development and completion (Hutton, 2001). Other research shows promise in the IOC's vision; the impacts of the Albertville games (not a 'third pillar' games) were seen as a positive as the construction was going to occur regardless of the games and the enhancement of infrastructure (water

treatment, roads upgrades) was seen as a positive outcome for the region's lakes (May, 1995) as the levels of pollution entering the lakes was reduced.

The result of the upcoming Olympics in Beijing has been brown-field clean-up (Brajer, 2003), infrastructure improvements and green-space development; though some argue that political pressure has led to a focus upon economic gains, while environmental impacts have been largely ignored (Zou, 2005). Of course how Beijing deals with its persistently poor air quality remains to be seen, and there is little indication that after the Olympics these modest improvements will have much long-term impact on China's rapidly degrading environment.

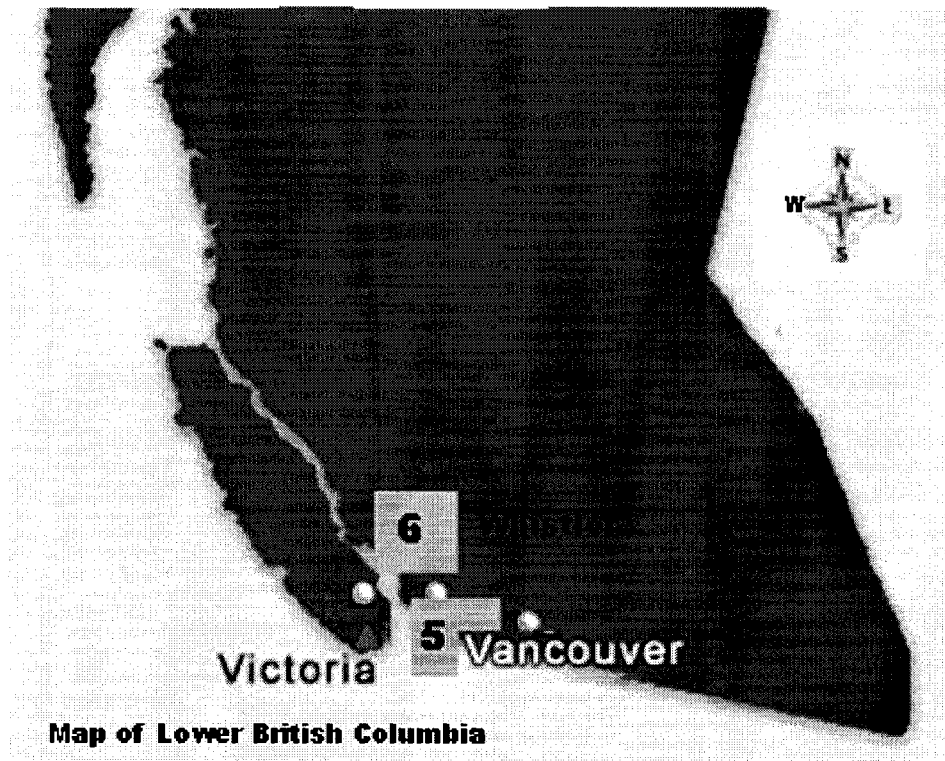
Currently there are many projects underway related to the 2010 Olympics. The expansion of the highway is near completion, and was a harmonized project, though not considered a part of the Olympic upgrades by VANOC (CEAA, 2004b). The skytrain line (Canada Line) from the Vancouver international airport in Richmond to downtown Vancouver is also not considered an Olympic project but is well underway as is the expansion of the Vancouver conference and exhibition center (VCEC). There are currently nine additional EIAs in the CEAA online registry directly related to the Olympic games (CEAA, 2006b). None of the projects were subjected to the full EIA process and only one development requires any follow-up or monitoring, yet few could deny their Olympic connections.

4.6 Venue/Infrastructure Descriptions and EIA decisions

The 2010 Winter Olympic Games requires the construction or upgrading of numerous facilities. In total 7 non-competition venues are being constructed or renovated 2 public infrastructure projects are being undertaken and 11 competition or

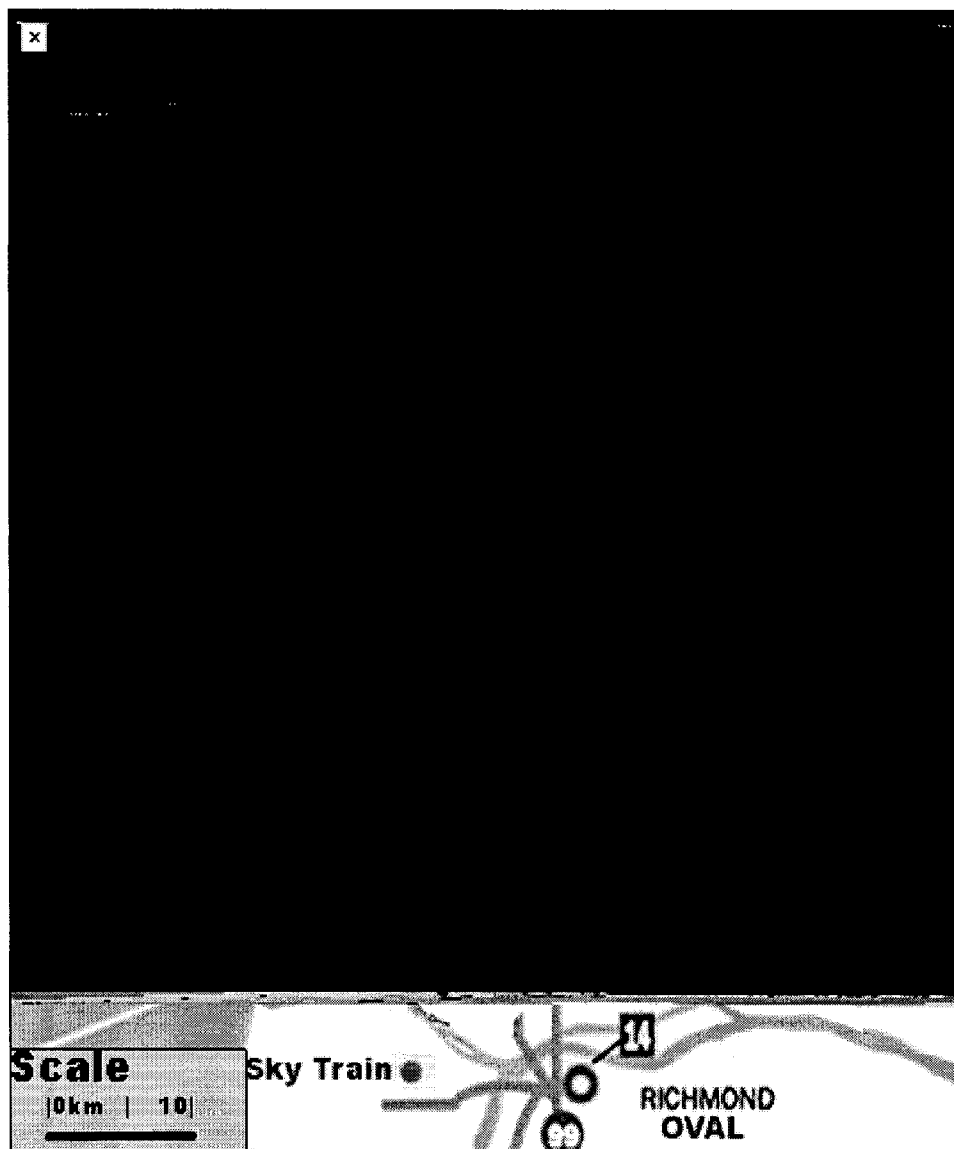
practice venues are being constructed or renovated. See Appendix B and C for descriptions of the venues, including their post-games use, as well as the decisions handed down from the EA process. See table 3 for a quick summary of the venues and EIA decisions. See Figures 5 and 6 for a map of where the venues can be found in the areas in and around Vancouver and Whistler.

Figure 9 -Map of Lower B.C. Figure 5 and 6 Insets Highlighted



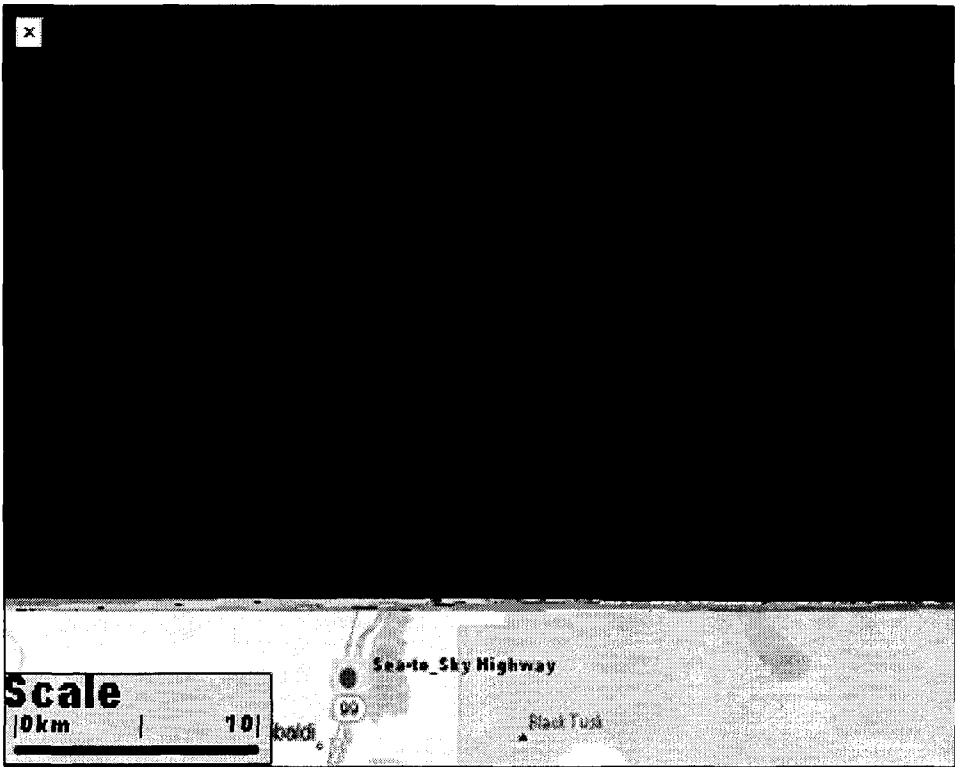
(Original Image sourced from: Service-Canada, 2008)

Figure 10 - Vancouver Venue Locations



(Original Images sourced from: City-of-Vancouver, 2008; The-Vancouver-Sun, 2008)

Figure 11 - Whistler Venue Locations



(Original Image sourced from: Whistler-British-Columbia, 2008)

Table 3 - Venue Summary

Venue Name	Location	Basic Stats (development type; sport; considered an Olympic Development (yes/no))	EIA Issue	EIA Decision and requirements
Richmond Oval	Richmond	Competition Venue; Long Track Speed Skating; yes	Brownfield redevelopment, on waters edge	Approved - Mitigation - effects not likely adversely significant
Hillcrest/Nat Bailey	Vancouver	Competition Venue; Curling; yes	Reconstruction of existing facilities	Approved - Mitigation - effects not likely adversely significant
Trout Lake	Vancouver	Competition Venue; Hockey; yes	Reconstruction of existing facilities	Pending
Killarney	Vancouver	Competition Venue; Hockey; yes	Reconstruction of existing facilities	Pending
Cypress Mountain	West Vancouver	Competition Venue; Freestyle	Endangered Habitat, Provincial Park	Approved - Mitigation - effects not likely adversely significant

Venue Name	Location	Basic Stats (development type; sport; considered an Olympic Development (yes/no))	EIA Issue	EIA Decision and requirements
		Skiing, Snowboarding; yes		
GM Place	Vancouver	Competition Venue; Hockey; yes	Renovation of existing facility	Not Started
Whistler Nordic Center	Whistler	Competition Venue; Cross Country Skiing, Bi- athlon, and Ski Jumping (long jump) ; yes	Endangered Species and habitat; Cultural Space, water quality.	Approved - Mitigation + Follow-up - effects not likely adversely significant
Whistler Sliding Center	Whistler	Competition Venue; Luge, Bobsled, Skeleton; yes	Water quality, impact on wild- life	Approved - Mitigation - effects not likely adversely significant
Whistler Creekside	Whistler	Competition Venue; Downhill ski racing; yes	Stream issues, impact on wildlife	Approved - Mitigation - effects not likely adversely significant
UBC Winter Sports Arena	Vancouver	Competition Venue; Ice and Sledge Hockey; yes	Renovation of existing facility	Internal
Pacific Coliseum	Vancouver	Competition Venue; Figure Skating and Short Track; yes	Renovation of existing facility	Not Applicable
BC Place	Vancouver	Non- Competition Venue; Opening and Closing Ceremonies - Nightly Medal Presentations; yes	Renovation of existing facility	Not Started
Whistler Athlete Village	Whistler	Non- Competition Venue; Residence for Athletes; yes	Water quality, Cultural Issues, Impact on Wildlife	Approved - Mitigation - effects not likely adversely significant
Whistler Ceremony Plaza	Whistler	Non- Competition Venue;	Impact on Wildlife, water quality	Not Started

Venue Name	Location	Basic Stats (development type; sport; considered an Olympic Development (yes/no))	EIA Issue	EIA Decision and requirements
		Awards and Celebration Plaza; yes		
Whistler Media Center	Whistler	Non- Competition Venue; Media Broadcasting; yes	Renovation of existing facility	Not Applicable
Main Media Center/VCEC	Vancouver	Non- Competition Venue; Media Broadcasting; Venue by VANOC but not Development for EIA	Water quality (extends into harbour). Impact to water animals and habitat	Approved - Mitigation - effects not likely adversely significant
Vancouver Athlete Village	Vancouver	Non- Competition Venue; Residence for Athletes; yes	Water quality (extends into harbour). Impact to water animals and habitat, Brownfield redevelopment	Approved - Mitigation (limited) - effects not likely adversely significant
Whistler Nordic Rec Trails	Whistler	For cross country skiing and hiking purposes. It is a Legacy Project. The EIA was split off from the Nordic Center	Endangered Species and habitat, Cultural Space, water quality	Pending
Canada Line - Sky Train	Richmond - Vancouver	Public Infrastructure; Connects YVR to Downtown; not by VANOC	Water Quality, impact on wildlife	Approved - Mitigation - effects not likely adversely significant
Sea-to-Sky Highway	North Vancouver- Whistler	Public Infrastructure; Main highway route Connecting Whistler and Vancouver; not by VANOC	Water Quality, impact on wildlife; impact on residents, endangered species and habitats.	Approved - Mitigation - effects not likely adversely significant

4.7 Knowledge Gaps

There has been limited research undertaken on the effectiveness of environmental impact assessment in Canada, indeed this is a major research gap. The last notable studies found that some processes are ineffective (Marsden, 1998; Sadler, 1996), but those are now over 10 years old and do not consider the most recent amendments to the Acts. Have the EIA processes across Canada had a positive effect on reducing the environmental damage caused by development projects? Similarly there has been little research into the harmonized, federal-provincial EIA process to develop ideas about its effectiveness or applicability. Does the harmonized process really reduce overlap while streamlining what are sometimes incompatible sets of rules? Or does it remove the security of a double-check process?

Class screenings, where a project is assumed to have the same impacts as other similar projects and is approved at the screening stage, have been used sparingly: mainly on road improvement projects, but used none the less. The usefulness of class screenings has received little academic attention. No project will be the 'exact' same, Olympic cities are all different and each venue in a different location, each system is different and cumulative impacts on an area caused by a series of small projects, all approved under a class screening (where the first to be approved did not necessarily go through the entire EIA process itself) would never be studied.

One area where there has been no academic research is in the enforcement of the terms of an EIA. Outlined above the weaknesses of the Canadian and the British Columbian processes; limited monitoring and enforcement are the only legitimate

explanation that all projects have complied 100% with the EIAs recommendations.

One possible explanation as to why no enforcement has ever been undertaken (where it is legislatively allowed) would be that since only 1 in 100 projects ever have a monitoring program requirement, no data can be uncovered to see if the predicted impacts have been properly mitigated. With no available data, or programs to collect data, it is hard to prove that the terms of an EIA have not been followed: no enforcement activity is undertaken as nothing is found to be in contradiction with the terms of the EIA.

Here it is suggested that political and industrial pressure can exist for project approval. The responsible ministers have been given wide-ranging discretionary powers that could be used to limit the scope of any EIA. Perhaps a project proponent will want the least rigorous EIA process possible applied to their project which would reduce the costs. With regard to the 2010 Winter Olympics, VANOC wants all projects to be finished ahead of time and must place pressure to make sure the EIA process is as streamlined as possible and even opted into the provincial EIA process with the Nordic center to ensure a time-limited assessment. The governments of British Columbia and Canada do not want to be embarrassed by incomplete venues, just as the world is watching in 2010. After all, this happened in Athens in 2004 and in 1976 in Montreal. Two questions are raised when considering these points: Has there been any type of pressures influencing the EIA process in regard to the 2010 Olympics? What effect do external pressures and discretionary powers have on the effectiveness of the EIA process in Canada?

There are limited studies dealing with the environmental impacts of past Olympics and many of these studies deal with lessons for future host cities (Hutton, 2001). Few of these studies were undertaken prior to the IOC adding the environment as its third pillar in its charter in 1994, though it was understood that the Olympics could bring environmental impacts (May, 1995). Most of the studies relate to the impacts of the Sydney summer Olympics held in 2000 (Kearins, & Pavlovich, 2002), though research relating to the upcoming (2008) Beijing Olympics and its accompanying impacts (Zou, 2005) as well as the 1992 Albertville Winter Olympic Games (May, 1995). Reports are starting to surface regarding the most recent Olympics in Turin, Italy, though none have yet to be written regarding the environmental impacts.

Another major knowledge gap was identified – the lack research into EIA and mega-events such as major international sporting events or expositions. The ability of EIA systems to deal with time concentrated multi-site developments is a question worth pursuing.

It is fully possible that the development associated with an Olympics is subjected to internal and external pressures to accelerate completion and environmental health may be adversely affected because of this. At the very least it is also likely that the Olympic machine will cause projects to be fast-tracked so they will be completed ahead of the Olympics; where if the Olympics were not taking place these projects would either not be undertaken (Cypress mountain upgrades, athlete villages, awards plazas, Whistler Nordic Center, Sliding Center) or would move ahead as originally planned with usual pressures, delays and timelines (Canada

Line, Sea to sky Highway, Vancouver conference and exhibition center, Arena rebuilds).

5 Discussion and Findings

Impact assessment typically involves a relatively small number of people, unless there is enormous public participation, the number of people with good knowledge is consistently small. The 14 people who were interviewed for this study is a true survey of elites – those deeply entrenched in the 2010 EIA process - excerpts of their interviews, along with a discussion and interpretation of the significance can be found below.

5.1 Efficacy and Process

Environmental Impact Assessment has been applied to all but one of the Olympic development projects. Three assessments are still pending; three assessments have not started; and the work to be undertaken on the final project will not require an EA to be undertaken for the construction is to a small scale which did not trigger provincial or federal assessments. Of the thirteen approved projects only one has follow-up requirements attached to it and not one of these projects went through anything more than the screening process. Five of the projects were subjected to the federal-provincial harmonized EA process and one other project was assessed by an impromptu harmonized process agreed upon by the federal government and BC parks. See Appendix B and Table 2 - Venue Summary in Appendix C for detailed EA information for the individual projects.

The trigger for federal EA process for the majority of 2010 projects was funding from Canadian Heritage. The Department of Fisheries and Oceans, Environment Canada, Infrastructure Canada, and Transport Canada took part in

various assessments due to a trigger related to their responsibilities. All projects were given a *no significant adverse environmental impacts* approval on their approval certificates.

None of the official Olympic venues (defined as being considered to be an Olympic Venue by VANOC) triggered the provincial EA process, but VANOC opted-in to the process for two of the projects. As one respondent stated: “Without a harmonized review process, I don’t think there would have been a timely review. There were just too many issues on the table.” This statement corresponds to issues brought up by other respondents who criticized the Federal EA process for not having reliable timelines:

“The (Federal) EA process has no time limits. There is a minimum timeline of 14 days plus, 15 days or something along those lines...But that is a minimum; the law says you cannot do a CEAA approval in less than this. That was why the Callaghan (VANOC) spent the money, they actually paid the EAO office money to go through their process because they were very concerned with the timelines and they knew they (EAO) had a 140 day requirement tied to it”

This sentiment was echoed again:

“...this is federal time we are talking about here, they don’t have time limits. At least the EAO, sets time limits, they can be moved, but they set them.”

And again:

“...but the provincial process has time limits. That is something people like about it, people who enter the process, have a certain confidence that there is a beginning and an end, now there is the flexibility to extend time limits... Federal people may feel that this is being rushed...they don’t have time limits.”

And again:

“They (CEAA) did not care about deadlines.”

While the timelines issue will be further discussed in the harmonization section of the thesis, it is the Federal EA process that has really been prevalent during the 2010 preparations.

Just over half of respondents believed the Olympic projects were assessed to the 'letter of the law' and half of respondents believed that the EA process 'produced better projects.' A full quantitative summary of responses is available in appendix C, though it is interesting to note that none of the respondents from the 'public' response group thought that the EA process 'produced better projects.' A respondent from an NGO admits that the EA acts were properly followed but questions whether the EA legislation has environmental protection in mind:

"The compensations never happens; and the mitigation is only to service the letter of the law. It seems to miss the intent, which if the intent is to protect the environment, the environment loses...The job here has an environmental monitor: whose duty is to see that the contractor obeys the environmental requirements. He has the power to shut the job down but he is paid by the contractor...

It seems like every time we had an issue that seemed in contravention, there was enough wiggle room for them to get out of...things like the migratory bird act...we have this international treaty that should protect these migratory birds. I went up there one time after logging and found a robin egg that had fallen out of a nest of a tree that was cut down. There was an agreement that they would not log during nesting season, yet I had hard evidence that they did. They said 'oh it was just one that was missed and that there are thousands of robins' but to me it just signified that they had a way of wiggling out of what they found...They said "well it is written in there that we will protect amphibian habitat. and we already wrote up this document and we didn't have this information, don't worry it will be looked after too."

With little monitoring, no capacity or power for enforcement and no-follow-up required, how is the public supposed to trust a proponent that seemingly wiggles out of their responsibilities and then tells them not to worry and that they will look after other issues?

With the environment being the third pillar of the Olympic movement it is important that projects respect local laws and customs. Respondents generally

indicated that the relevant laws were respected, but questions arose concerning if the environment and society have been improved by these projects, as the third pillar requires.

One respondent believed that the EIA process did improve one project that they worked on but felt that due to the small size of the project, the EIA was more work than it was worth and that the issues would have been dealt with because of dedication to LEED standards:

“EIA was effective in reducing impact, we probably looked at things different than we would have otherwise, (this) project is somewhat different, and it was often a bone of contention with me and the assessors; I am not building a industrial plant where I am going to be polluting. A lot of their EAs are related to big industrial things and other types of mega projects. Ours is not really a mega project, we are just building a sub division...Our site was a disturbed brownfield site with a forested area that had been logged 40 years ago, it was pretty banged up anyways... yeah we are probably doing better storm water management and a few other things, but we were probably going to do those things anyways because of LEED designations etc. Overall, because of the type of thing we are doing, yeah there was some minor improvement but the pain of the process and the dollars spent I don't think it was really worth it.”

Another respondent believed that the EA act of BC does not include sufficient protection requirements for the environment and is unsure of its effectiveness in protecting the environment in the Olympic projects he dealt with:

“The EA act in BC was amended a couple of years ago, and its earlier mandate to improve and protect the environment was effectively removed from the purpose for conducting EAs...Has the environment been protected from adverse effects, I'm not sure.”

A third respondent also echoed this theme, and also questioned the commitments made in earlier long-term strategic plans for the area around one project:

“...I don't second guess the EA office on it but the way that I have seen it move forward, there are some very serious issues particularly to do with wildlife and grizzlies, that are not being given all the attention that they should be particularly when one refers back to the provincial government's own s2s land resource management plan... those specific recommendations that research needs to be done and mitigation should be accelerated in areas where Olympic venues are going in. That work in my view is simply not being done. So there is a flaw in the EA system.”

And another respondent does not believe the process is effective due to the self-regulating nature of the EIA system:

"I asked him how the Environmental Management Plans were coming and asked if they were in for approval. He said I don't submit them for approval, we submit them for acceptance. It is not an approval process. It is self-regulating and the emphasis is not on protecting the environment but to get the info out so it looks like we are protecting the environment."

Other respondents thought the provincial process needs to have goals set out that it can reach and that the weaknesses in the process are apparent:

"No (properly assessed)...the weaknesses have been documented in the comments that the First Nations have filed. The First Nations are on record as observing serious flaws and weaknesses in the EA process...It would be valuable if the BC EAA set out some acts that it wants to achieve: protect the environment, improve environmental quality, improve projects, identify and accommodate First Nations concerns and interests."

These thoughts were also brought up in another interview:

"I think these are valuable process, I think if anything the environmental regulations and oversight is probably weaker than it could be, that is just a personal opinion. Speaking on behalf of council and community, we have had an interest in being good environmental stewards: we support these kinds of processes."

Conversely one respondent wholeheartedly believed that EIA did make a significant improvement to the projects:

"I think the EA process really helped drill down the detail that was necessary to realize where they could take greater strides to minimize the impact. Yeah I think it was extremely important to have."

And this sentiment was later echoed by another respondent:

"...we had aspired to meet a higher standard with respect to managing the environment. It (EA process) has permitted us that opportunity. It has allowed us to generate a broadly based forum for these stakeholders to participate and air the issues... I think it has worked very well and it has allowed VANOC to be transparent in terms of its process and its development of the facilities and venues."

Monitoring, enforcement, and follow-up all have important roles in EIA and it has already been shown that weaknesses in the EA process generally are found in

these areas. Interview respondents mirrored the historical weaknesses in EA when applied to the Olympic developments.

NGO representatives were in agreement about the lack of enforcement and monitoring.

“There is a problem here in that environmental agencies have regulations but they do not seem strong enough that they are enforceable...our laws are strong enough but our enforcement officers do not have the power to enforce them... I have been trying to get a watershed monitoring process established for the (area), measuring the impact of development near the wetland. There have been promises that they will set up a monitoring team...I'm hoping that I will either be a part of the process or in the least be aware of what they are doing and have the information.”

One went even further by noting that follow-up is insufficient.

“VANOC will disappear up its own asshole in or around the middle of 2010, they will cease to exist, there will be no door, no phones, nobody you can send an email to, to say this has not been properly followed up. I would say at this point it is (required) for the legacy society to look at all aspects of what VANOC is building and is going to hand over to them to make sure there are no red flags in there...the business plans have been notoriously late in coming and it is something I fear for as I have seen this before from VANOC “it is too early, too early, we are not there yet”, then suddenly,” it’s too late its too late...The public will follow-up with them, there is a responsibility there...Which is why it is important to get it right now and is why it is so important to get the EA right and not just caving into “trust us” or pressure from above or the ambiguous word from consultants or the outright denial for organization or individuals who are sparing with the truth...follow-up has not been sufficient, not that I have seen, I have not seen the final, but from what I do know, scientists and biologists, and bear researchers and, well a lot of people have been working on this, the last thing I saw in the EA is that they are not sufficient at all.”

Consultants had the same opinions as the NGO representatives noting that follow-up has been a concern and that self-regulation generally does not work and leads to ignorance or blatant disregard for the monitoring and mitigation requirements of the EA certificates. Capacity issues within the government agencies are brought up as barriers to proper monitoring, follow-up and enforcement:

“Follow-up has been an ongoing concern from the First Nations ...“so we have all these commitments, how do we know it is actually going to happen? Who is going to look out for that?” The answers come back that VANOC will look after that...is the best way to determine whether there have been problems is to have the proponent evaluate themselves? Nonetheless that is the way the province seems to be going in a variety of areas, performance based assertive assessment they have applied to the forest industry, that will allow them to grade themselves. They will get a lot of A’s that way. It seems to be a provincial direction. The EAO does not

go out later and see whether that old growth logging has been minimized or that riparian buffers have been left around creeks, that does not happen. It is a huge problem. I appreciate the challenges that the government has in doing this; there is a lot of development going on... (and) it is expensive to have somebody out there monitoring things. The First Nations for their parts have negotiated to have environment monitors out there during construction, what happens during operation...those issues have not been resolved..."

The respondent continued by outlining the whole-system approach that First Nations have come to understand where they cannot separate the developments into small components as the cumulative impacts of different developments, or even separate impacts within a single development are an issue to their way of life and understanding of nature:

"It should not just fall on the shoulders of the nations to do that monitoring. Why should it? Why should it fall on the shoulders of the First Nations to be assessing the full spectrum of issues raised in an EA.... the fish agency comments on the fish, the wildlife group will comment on the grizzly bears, NAV waters just looks at the streams, the only group that reads the assessment cover to cover is often the nations so they are the ones who are saying that this is not consistent with that, you have a gap here, we don't see how this is going to work, we don't agree with how this is being conducted. There are in the odd position of being the most rigorous reviewer of these documents just because their interests pertain to everything. To the land, the development, the fish, to the birds to the water, all that stuff, it is all linked, it is their home....

Well clearly they are not (follow-up implementation sufficient)...The post-hoc review of how things are going is weak. That is certainly an area where you would hope that the EAO and CEAA would be paying more attention to...Follow-up...a lot of it is based on trust, you hope that there is enough of a relationship between VANOC, the province, the First Nations and the feds, that when VANOC says we are going to do these 46 things that they will actually do them. Same with the province, some of the commitments that the First Nations suggested were provincial commitments, not VANOC... It is primarily crown land; it typically falls to the province to do something, not VANOC..."

The consultant agreed with the NGO representative (quoted earlier) and also pointed out that when VANOC disappears it will be up to the legacy societies to take care of follow-up and monitoring requirements:

"legacy trails are a bit odd because of the Whistler legacy society will become the owner/manager of various facilities including the trails and the Nordic center. So it will presumably fall on their watch to do this monitoring, and no body has even thought about it yet, they barely know who is going to be on the WLS."

Since the legacy societies are not yet created, their role in, or their ability to conduct follow-up and monitoring programs raise question and concerns. Finally, one gave an example of the weakness of EIA with specific comments on enforcement and environmental protection during development:

“we have one project that will remain unnamed that has been a problem for years and there has been no support federally. Today is the first day that the federal agencies have stepped in, and charges are pending. We filed literally hundreds of incident reports; we have issued one stop work order to shut it down. We have been pleading with the federal agencies who have jurisdiction to stop letting us take all the heat for doing their job...I don't know (why no one stepped in earlier). I can guess...political pressure, who knows. We started out with an agreement that we were going to be responsible for the all the wildlife surveys, in adherence to a contract that had commitments and assurances... we are now only doing wildlife surveys on construction, not design of one segment. They have brought in other consultants that are more agreeable to do the other ones. That doesn't really make us look very good, we are just doing our jobs and the reason is that there is no support at the agency level. If no one is going to enforce the speeding limit, why worry about how fast you are going.”

There is some agreement from government representatives as whether follow-up was sufficient, most believe that it was. What can also be exposed here is that they view follow-up as an important tool that should be used so the process may be enhanced in future cases. This raises the question as to why follow-up is not heavily prescribed in the EIA process:

“There is some follow-up defined by CEAA. There is certainly follow-up in terms of monitoring, and ensuring that the legacy accomplishes what it is supposed to accomplish, that things aren't just up to the end the games and will not be looked at anymore...follow-up was sufficient...if its not complete then for example DFO would not sign it. I would say that to this point yes they are.”

A second government respondent mirrored these ideas:

“I think we take it seriously. I think it will be really important to actually do an audit to actually understand whether all of those commitments and all of those things that were deemed to be really important, whether they were or not, whether the have panned out and really separate the ones that were more pacifying statements and ‘weak’ commitments from those that were real. I think it is important to separate those out and use those for learning for future processes.”

A government respondent outlined the potential enforcement capabilities of the agency and noted that nothing above asking a proponent to fall into compliance has ever been done:

“We do not have to draw on this provision very much: we have powers of inspection...we can be designated to go out and request any information we want, or look at the project...or we can empower someone on our behalf of our office...if we find something is out of compliance we can (do) things like, suspending the project, suspending the EA certificate, taking somebody to court. The act does specify there are fines and prison terms that can be imposed...we have never charged anyone, but, we have written to proponents to say that we think you are out of compliance, and if you don't want us to go to the next level you will have to fix this up...”

This respondent continued by describing the importance of follow-up and believes that the evaluation approach, what can be considered as technique evaluation is, in practice, undertaken infrequently:

“For any project follow-up has a very important role and it is part of what we identify in an EA: a whole series of steps that is going to happen post EA. To make sure that the commitments that were made by the proponent were carried out, that the mitigations that are proposed are carried out...We are basically a planning process so if nobody is following through on everything we had concluded out of the planning process, why did you have the process in the first place. What is the value? ...In any project we review there will be a proponents list of commitments and assurances and it can run into the hundreds of commitments and assurances and it is basically saying that, based on this EA here is the list of things that we commit we are going to do and when we are going to do them. We, not just the EAO but other levels of the government, then have the responsibility to monitor this list. The list will ID in some cases which agency is responsible to follow-up or which agency has to review a plan and either approve it or give comment on it...If you are building your body of knowledge about what did you learn out of an EA, how do you advance the science, and that is, what was the experience, it is more of the evaluative side. Did this mitigation accomplish what we thought it would accomplish? What was the experience in trying to implement it? Those kinds of things that are more along evaluation type approach: those may be less frequent than what you find under the compliance side. Sometimes they are prescribed under the federal process because there has to be a follow-up and reporting program.”

The capacity issues that exist that inhibit the ability for government agencies to send representatives into the field, even when follow-up is prescribed, raises serious question about the actual ability of EIA process to reduce environmental impacts. But if you combine capacity issues with a lack of follow-up requirements in the EIA process one may question which came first: are follow-up requirements not

prescribed because the agencies know that they lack the capacity to effectively undertake the follow-ups procedures or is capacity of the government agencies purposely kept low to ensure follow-up procedures are not prescribed, making development projects cheaper to undertake in the long run?

One government representative did express concerns about follow-up and the implementation of mitigation concerns noting that VANOC is under great pressure to have venues completed:

“...I think VANOC is so busy and so under pressure to crank out these venues and having them ready for competition starting next winter that some of that good follow-up has not occurred. ...the process is there to identify the concerns, there is documentation of intentions to address those concerns, but the follow-up and the implementation of those is not as good.”

A government respondent stated:

“From what I’ve seen there are follow-up programs for all the projects.”

But this is not the case, which suggests that some of those tasked with overseeing the EIA process or contributing to it, do not fully understand its limitations. But the respondent did agree with other representatives in that follow-up is important to ensure that predictive techniques are accurate:

“Doing EA and not having follow-up is useless. For a number of reasons: 1 - to ensure compliance with the rules and 2 - to make sure the assumptions were valid...In regards to the predictive techniques there have been some issues.”

Restrictions to follow-up and monitoring programs, enforcement procedures and overall capacity issues were discussed by a number of the respondents. These are the same issues that were found in past studies of the Canadian EIA system prior to the most recent legislative amendments. Most often quoted were personnel capacity, time, and monetary issues. Below is a brief sample of related responses (from consultants and government representatives):

- “With 12 projects on the go it does put a serious strain on our agency...Restrains...federal departments especially fisheries and oceans whose numbers have been reduced. Manpower.”
- “Since we came tearing through the door, and we needed this approval in six months and we represented 3 of 20 projects of equal or larger magnitude, there was not time to develop a relationship... Nav waters: there was one person doing that and she was pretty aggressive, partially because she was overworked. They knew this was coming, as soon as it was done they staffed up 4 or 5 people. They were not ready out of the barn but they are ready now...I would say it was capacity... I don't think they are project people by training.”
- “Restrains... Money, responsibility, and what do you do when you find a problem... The whole polluter pays principal is interesting but then you have to do the whole historical thing, whose fault was it?...Was it VANOC's, a contractor's, an individual, a member of the public who came on site, what are you going to do about it?”
- “The big restraint is time, people's time, you also find the people who review a project are not the ones who are taking it over once it is being built...but again it is the resourcing, the time, I think that is one of the biggest barriers to why we don't go out and evaluate more projects, well we've got right now 60-65 projects that are in the EA process and we are not a big office. So there is very limited time that we can go and do that, and the line agencies are in the same sort of circumstance... So you got time and resources as two of the reasons it does not happen.”
- “We have limited resources, we don't have staff we can send out on a regular basis to go onsite and meet a check...I think it is just capacity, mostly. And the time pressures, short construction seasons, you are dealing with the winter Olympics, obviously we are talking about places that are under snow for a part of the year...schedule anything with VANOC it is hard to make it happen, they really are stretched thin.”

One of the developers notes that the agencies were inundated with Olympic EAs and that in terms of their mitigation requirements, monitoring is just not happening from the government agencies. This respondent even questions the ability, and will, of government agencies to penalize or enforce the mitigation requirements:

“they got inundated with 15-20 of them from the lower mainland area from Whistler to Van at the same time...we have 15 pages of commitments and assurances, and keeping track of those is just an extra layer of paper work. Last year we missed some things because we ...half the time the review never gets done anyways, it falls into some black hole in the federal or provincial government. I'm not sure if they are paying attention to the monitoring themselves. We are probably paying more attention to it then they are... they could keep coming back, but if we chose to ignore them I'm not sure if anything would happen. We work together on things but if you didn't have a good relationship on things like that then.”

Another respondent viewed the problem associated with monitoring and follow-up programs with the Olympics projects as the organizing committee running out of money:

“At the end of the day VANOC is out of money, they have budgets that are stressed all over the place...I’m not sure they would have the resources to do so.”

Another respondent believed that the legacy societies are going to be monetarily stressed when the venues are passed along to them:

“What I will say is that the challenges are, as part of the Legacy Society, is understanding the financial implications of some of those commitments and we have to build them into our business plans, it is just something we have to do...there will be financial realities, the base budget of running the Nordic center is going to include funding for everything from sewer treatments, to providing water, to snow clearing, to managing those commitments that we inherited through the EA process...We can’t walk away from any of those.”

Self-regulation was again brought up by a respondent in citing the ineffectiveness of EIA in protecting the environment:

“This one guy not only is the policeman, he is writing the rules and is part of the enforcement. He is working for the consortium who is doing the project.”

While opinions do vary on the effectiveness of EIA in protecting the environment, there was a consistent theme across the different participatory groups that capacity issues are hindering monitoring of the developments and enforcement of mitigation requirements. Follow-up was also considered to be hindered by monetary and personnel capacity issues.

5.1.1 Do pressures exist to fast track the EIA process for 2010?

5.1.2 If so, how have they impacted EIA application?

The 2004 Summer Olympic Games held in Athens had issues with incomplete venues including not having a roof over the pool. Many saw this as a failure of

Greece as being incapable of meeting international expectations. To avoid such disgraces, pressures may exist to fast-track the Olympic venues. The following section contains statements from key actors in the Olympic EIA process dealing with outside pressure to complete the EIAs (and venues) and how such pressures may have affected the EIA process. There are significant intra- and inter-participant group differences between the statements.

One NGO representative did not believe there to be outside pressures:

“I didn’t get that feeling (of outside pressure to fast-track).”

Countering this opinion, another NGO representative pointed to stated political development routes that will lead to pressure for quick development, and also believed that *political guiding* took place in regards to EIA involvement. This respondent also contrasted the rush for 2010 development with an example where development pressure exists elsewhere:

“there is a stated objective to double tourism by 2015 and we are well along that path. It is clear that with recent legislation, it is called the JUMBO bill, quick background: jumbo ski resort has been planned and although the regional district rejected it, so the provincial government created legislation where Jumbo could create its own municipality or partner with an entirely different municipality. It doesn’t have to be in the same geographic area. It basically removes the decision around creating a resort like that, it removes it from a regional government..., the Lil’wat regional district was not moving forward so the provincial government basically took control of rezoning out of local government hands. They took it back to Victoria....The significant projects act which says that if a project is deemed to have provincial significance but that the project was not being moved forward by the local government level, bill 75 can be enacted and it basically overrides the local government. there has been a systematic trend by the provincial government which is removing power from the municipal, regional, district governments and they are centralizing power in Victoria rather than out in the regions which is the opposite of that they said they were going to do... the overall framework in where the provincial government is going and what their stated objectives are...

You (the government agency you are working for) do the best job you can under the legislation and the direction you have until you are told to shut up, and then you shut up...I am speaking specifically now about the provincial government ministries that for whatever reason chose to or were asked to remain silent and not participate in the public process, all voices should be heard.”

One proponent claimed that Olympic venue developments were indeed given priority, because it is the provincial government that is responsible for the Olympic developments:

“Olympic jobs were given priority, yes. Although some of the groups had to be reminded of that more than others...provincial, the government has made Olympic projects a priority so on the provincial side it was pretty good. Soon as it is an Olympic project it is put at the top of the pile. It is not first come in first looked at, you get it is and it is looked at first, and it is quite good. The provincial is ultimately on the hook for the Olympics so they don't want delays to be the cause of cost increases.”

But another proponent rejected the notion that the Olympic EIA processes were fast-tracked:

“there is a fast track process in BC that is legislated for major projects. We did not go there... We elected to opt into the review processes and participate in them. We are under tremendous timeline pressures but circumventing the process, that was not an interest of what VANOC had at all.”

Opinions expressed by respondents from the consulting group all believed there to be pressure coming from the highest levels of government to fast-track or otherwise ensure that the projects were allowed to proceed:

“these were fast tracked, these were fast tracked... I'm assuming from Ottawa... I don't think the approving agencies compromised anything, we just had to work harder.”

Another respondent echoed these themes:

“They (pressures) come from the highest levels obviously. The premier of the province... Clearly from the cabinet on down there is strong support for the Olympics, I'm not sure how much tolerance there would be for stalling or derailing or opposing an Olympic development. Now having said that VANOC has not done a bad job of trying to reduce the imprint of everything on these facilities that we are building...”

Continuing with this theme, the respondent also expressed that it would be naïve to expect many institutional obstacles to these projects which have been endorsed by all levels of government:

“...And in any case like this, where it is an initiative that has been endorsed enthusiastically by both the provincial and federal governments, it may be naïve to expect a government process to effectively mitigate potentially adverse environment

effects. There are many institutional obstacles that one could imagine that could be associated with agencies being very diligent in identifying potentially adverse effects given that their employers have already given their support to the initiative. Now that is not unique to the Olympics, it is a common challenge to the assessment to any government sponsored project and certainly the Olympics are not immune to that malady..."

It was also noted that such pressures stem from strict timelines; *the Olympics will not take place in 2011* and the organizing committee is tasked with ensuring that:

The pressures usually have to do with time. The legacy trails was very much a rushed assessment was done... Well figure it out, it is now June, how much time is left to actually do the assessment? ...if you go online and read those documents that not a lot of time was spent in the field, the First Nations had basically a month to do their AIUS, which is not enough time... We signed up an archaeologist a month and a half ago, he still can't go up there to do his work. Now they are saying until the 25th of June because there is still too much snow. They are saying it is still snowing a freezing at the top of the Madley so...and we knew there would be an issue of getting out and doing that so we could not wait to do the AIUS until the AIA was done because of snow. So we re-jigged the whole framework and approach that was taken to identify and express First Nations interests saying we will do an aboriginal overview assessment (AOA) which is a desk study early on, file our AIUSs but VANOC you can't start building until the AIA is finished, well they could not start building until the snow was gone anyways so it was not a huge hardship for them... VANOC wanted to have a decision by June 1st, well we said "VANOC we can't make the snow melt any faster, it is just not possible."

Even within the government agencies there were differences in opinion as to whether pressures existed, though most were confident that the pressures did not impact upon the EIA processes, just that these projects were given priority. One argument that was put forth on multiple occasions was that there was no point in making it impossible for VANOC to receive EAO approval or the CEAA checkmark, since the organizing committee was created to represent the provincial and federal governments in the Olympic development process:

"Yeah, and real justified ones...you create an entity known as VANOC who is representing the federal and provincial government, doing this for you as your agent, then you don't put them through hell...right? Dragging the process even longer would just make the construction schedules tighter; make their budgets more difficult to deal with ...construction process keep escalating. And so it is kind of like creating an organization and setting it up for failure in my mind... but the provincial on the legacy trails did actually push to get the thing to go and the federal government was pretty co-operative I think in that side of things.... People worked really hard and fast and it was kind of like you either show up and engage or don't whine about it afterwards."

One government representative ensured that there were no environmental trade offs but noted that some things were done differently than in other projects due to stated government objectives:

“Certainly the pressures originated from VANOC, they were laying out the timeframe according to the EA process timelines, but they worked very hard at making sure those timelines didn’t keep getting pushed back. ...there was just this real tension, a dynamic of VANOC making sure the EAO and the federal environment guys were keeping the documents flowing and bounding different players to provide their responses. ...I would say that the other part of that, the province made a commitment to the Olympics, it was very clearly a priority from the premier that these projects would move forward. So yes there was a pressure coming from elsewhere in a sense that, work with VANOC and make these things happen, and do that in a way that is appropriate, do your job, identify the impacts and work on solutions, but at the end of the day make sure it happens, do it quickly. ...certain things were done sort of different than the more private development kind of assessment process where they would have normally been required to complete some studies and provide the results of that before doing certain parts of the EA. ... There were some things we did where it was kind of this conditional approval where we will agree and sign off on the EA with an understanding that you will do these studies and apply the observations and results of those in the field as you develop that part of the venue...”

This respondent continued by explaining how the pressures were dealt with:

“well basically they just had to re-allocate the resources, so that is how they made my position.”

It seems that some issues were dealt with differently in the Olympic EIAs than with other private EIAs. This raises questions as to the efficacy of agreeing to do something before you know either what is proposed or what the impacts may be.

This could, however, be a show of good-faith and trust between participants in the EIA process, a definite bonus of co-operation, that is of course as long as the established best-practices of EA are considered and that the already discussed environmental protection visions of the IOC and VANOC are respected.

One government respondent did not believe there were any pressures placed upon their agency to make hasty decisions, and believed in the openness of the EIAs.

This ensured that such pressures could not negatively impact the EIA process:

“once a project is a reviewable project, the process is the same for all.... Your question is going in the direction of is there somebody who could get EAO to just sign off on something. So the answer is no, pressure does not exist, that’s the whole value of having this sort of transparent process.”

Certainly, since the Olympics are an important international event, it is expected that state agencies work hard to ensure its success and timeliness. A common view was that participants acknowledged pressures but were still impressed with how hard people worked to get the projects up and running:

“Credit has to go to the federal staff...well we had to continually remind them that there was this pressure and perhaps they could expedite our review.....I like to believe that they did respond relatively more quickly considering the special considerations that are around us, it is a federal project.”

Many new developments are occurring in the sea-to-sky corridor which are not stated Olympic developments. These developments seem to be using the momentum and timelines associated with the Olympics to fast track the approval and construction process. Combined with the goal of the current neo-liberal government of B.C. to double tourism by 2015 and their policies of shifting to a more centralized decision making process - which erodes the power of local populations. This use of the Olympic momentum for large scale development may have repercussions for long term sustainability in the region if one considers the potential cumulative impacts of multiple projects on an ecosystem.

5.1.3 What role do citizen participants have in EIA?

Public participation is a key aspect of EIA. Certainly the public will have views and opinions as to how the projects will affect them and their environment, and in a democratic society these views and opinions need to be included in any assessment, all voices should be heard.

In relation to the 2010 Olympic Games, there are multiple publics. There are concerned citizens and groups, such as the Coalition to Save the Eagleridge Bluffs, who actively participated in the EIA process for the Sea-to-sky Highway. This group is not anti-Olympics, but does hold the view that the Olympic development process is not necessarily being undertaken in a sustainable manner. There are other blocs, such as the Nordic skiing community who have shown support for Olympic developments and have sent in letters to be published on the EAO website in the EIA registry. There are individuals who have written in to the EAO and either endorsed the Olympic developments or have expressed reservations towards them.

Also of interest, however, are the groups who are opposed to the Olympics but did not participate in the 2010 Olympic EIA process. By not participating, these groups (such as the Anti-Poverty Committee, The Downtown Eastside Residents Association, and the Native Youth Warriors, among others) lost their chance to have their stated interests included in the impact prediction process – their positions were not considered, but they chose not to participate

There are also, of course, the apathetic or uninterested parties which make up the majority of the population. Surely the mass has an opinion on Olympic developments but their voices are not heard as no one asks them individually what they think – no one goes out of their way to engage them in the process. It is up to groups and individuals to participate in the EIA process, and by purposefully staying ignorant of the issues, this silent majority is allowing the minority to pave the route of development.

As was noted above, public participation in EIA processes has been a key quality of EIA. Those working on EIAs for the Olympic venues certainly believed that the public had ample opportunity to participate in the process. Another common theme found in the interviews, and something that was also brought forward in the literature review, is the ability for public groups, who are limited by tight timelines and capacity issues, to sort through and understand an in-depth, scientific, multi-volume EIA.

A representative from one NGO believed that the EIAs went to the letter of the law but did not meet what he believed to be the intent of the EIA process: to protect the environment. This respondent was satisfied with the level of co-operation and participation in the community but was discouraged by the reactions of the proponent and government agencies when he was presenting his well backed research.

“On one of my walks up there I came across the *blue legged frog* which in BC is blue listed as a species of concern. It was brought up even in the legislature and the minister of transportation talked about an alleged red legged frog sighting, I was being discounted, even though I got a registered biologist to authenticate that it was a *red legged frog*...I don't know that public participation changed the application much, but I think it has...I think it has made the contractor and other people in the field more conscious as they new they were being watched. They knew that we have studied the documents and when they do something that is a shortfall we bring it to their attention...the community involvement was a beautiful thing as it brought people together that would not have been brought together otherwise...”

This respondent continued by outlining the aggravation of battling against a well funded opponent:

“What I see as one of many problems is the process of bringing all this info to the public is that it is not done by environmental agencies but by PR people... We are out here as individuals interested in trees and frogs and they are not. And they built this huge battleship and launched it off against us...it is impossible (to battle something like that).”

Another NGO representative mirrors the above claim that the proponent launches big public relations campaigns instead of discussing the reservations and worries of the community:

“But when the proponent got their head around that there was an awareness campaign developing they went out and started their own campaign and spoke with and convinced many members of the Nordic and cross-country community that if the environmentalists voice or the conversationalist community’s voice prevailed that the legacy that they were looking forward to, which was the Nordic center and the rec trails, it would not happen... writing in publicly to the EAO and the unfortunate thing is when everyone reads them is that were was not a single thing said from the Nordic community that was relevant in any way shape or form from the Nordic community as it does not speak about any of the environment issues and the EI. It simply speaks to us, we want those trails... I have been told by others who have made submissions to this one and others, that their inputs have been scrutinized and in some cases the EAO felt that since it did not address EIs, that their submissions were not relevant and not posted so I question why these rah! rah! Nordic trail and Nordic skiing ones were posted...”

But this respondent was also satisfied that the public opposition or *awareness campaigns* did affect the EIA process:

“The latest I have heard is that the proponent has gone from not recognizing that this is grizzly habitat used by grizzlies; just denying that completely, to acknowledging that grizzlies may be present (even though DNA evidence suggests that grizzlies are present and in some cases they are resident in the area)...\$30000 per year for 3 years to study and help mitigate those impacts through public education and other things.”

A government representative defined the approach of the agency in dealing meaningfully with public consultation:

“For consultation to be meaningful people have to know what they are being asked about, the info has to be in an intelligible form, there has to be the appropriate way to convey the information, the appropriate ways to ask for feedback, people should be able to see how their feedback was used, what it led to, an honest explanation as to why or why not it was used. That is my general model of consultation. I think we followed that...we don’t go into a review with preconceived notions of how many people should be involved on the public side...”

The approach employed by the agency in question will be discussed again in the ‘policy recommendations’ section as they were brought up by a number of respondents. Specifically of interest are: “people have to know what they are being

asked about” and “the info has to be in an intelligible form” The same government representative continued:

We will put the ToR out for public comment and that will be the first look at how much interest is out there... We don't make any conclusions from that. If we don't hear a lot from people in the pre application stage the chances are it is not going to be a high profile project at application review... We have had all kinds of ranges. On the s2s why project we had 100-200 submissions in the open public comment period. I have been on other files (non-Olympic) where we have had 1 submission, it doesn't mean that no one has an opinion about the project, but in my experience we are more likely to hear from people who have concerns than people who don't... And we always offer that if an organization wants to meet with us individually, we are open to that, at their request.”

It seems that the agency referred to is dedicated to thorough public consultations, as comprehensive and inclusive as possible. But there are other views. Another government respondent expressed concerns about public groups ‘railroading the process’ in an attempt to ‘push their own agenda’, though the respondent also accepted that the public participation process reduces environmental impacts:

“I think public participation is effective for the reduction of impacts, I also have seen what I consider to be perhaps abuse of it by some of the groups that have a bee to burn or have an agenda and will say just about anything to get what they want regardless of whether it is true or not and all of it gets published as though it was meaningful... They (may) have a secondary agenda to get funds to do research that they want to do, I think that is more of a political thing with VANOC where they look at VANOC as a sort of endless money source to fund everything in site if you can link it to the games... I don't know if there has been any huge (levels) of public participation... I think there was a little more participation in that one because all of a sudden we have reached the part where we are going to build what is for the people as opposed to the high performance athletes for the games. All of a sudden the environments are out screaming for one thing or another.”

Another respondent brought up a concern: paying people off monetarily for silence or project acceptance. This is discussed at greater length in the First Nations section below. This closely emulates the above respondent, with the belief that the public becomes involved only when they are concerned about individual impact on lifestyle. But if the proponent is willing to compromise or make special arrangements, the public concern disappears:

“we only have one neighbour and I gave him a few trees and he is happy.”

It is difficult to gauge the effect of pay-offs in the public sphere. Would the ‘neighbour’ that the respondent speaks of be as willing to accept the project if a commodity (trees that were to be cleared from the land) had not changed hands? The question may also be raised as to pay-offs versus trade-offs. One respondent claimed that the public was very involved and engaged in the process but clearly did not understand all of the projects potential impacts; they eventually became aware of the project’s impact:

“The public was involved all the way through the process... There was awareness, especially from the environment community that this was, and I still call it a Greenfield. There had been a mine up there, so that part of the site is not greenfield. The Nordic center is not on the mine but is immediately adjacent. So I think that while there was some public review and awareness about the environment sensitivity in the Callaghan, it did not get a lot of scrutiny at the time (as it was presented as a brownfield clean-up)... We have a very engaged community. At every open house and every opportunity for input, there was input received.”

While another respondent related that the public is supportive of the project due to the benefits or legacy the project will provide:

“These are screening, there is pretty limited public participation, it was in the registry, we had open houses... we have been around doing this for a while and I think we have some credibility locally... there is no opposition. the athletes village will become affordable housing after the games... there is probably more public opposition to the peak to peak gondola then there is to the VANOC stuff.”

An apparent sentiment is that if the public was able to better understand the assessment reports as NGO representatives pointed out, and the respondent suggests, then it is possible that they would not have been so eager to accept some projects, or would likely want to see more ‘benefits’ before necessarily accepting a project as is.

While most government representatives agreed that public participation was important there was some disagreement on whether it affected change in the EIA process. One respondent believed that the public had no significant impact with the EIAs:

“No public concerns that wouldn’t have been raised under any normal assessment.”

One presented an opinion that indicated that without public participation, impacts would have been overlooked:

“Lots of participation from the groups that have been involved... Of course it is up on CEAA... In some cases (the public) also helped with which VEC and VSCs were going to be scoped and considered those were influenced by the public consultation.”

And another respondent had a similar opinion:

“Would all impacts or issues have been caught without the public participation component? Probably not... That is a value of our process, opportunity for public involvement, these were community issues and they brought them forward.”

Project proponents all agreed that the participation was important for transparency and had an influence on reducing impacts:

“Well public participation certainly has brought an element of completeness to it in the sense that we have been out working the in public environment since 1999. It has influenced the design, the location of the facilities, the operating and the post games concerns. I think it has influenced the overall assessments and I think the government recognized that over all transparency and have utilized the process as a way of confirming the work we are doing... I think case in point is Cypress Mountain... the design of the venue to the operational requirements of the venue... right down to the re-vegetation (was all impacted by public participation)... Effective public participation brings an element to the design process that would not be there in a regulatory point of view.”

Finally, one government representative opined that the public participation was instrumental in project design and that the Olympic developments have much less chance of causing significant environmental impacts when compared to larger developments. However, the respondent also indicated that the Olympic developments have much higher media and public exposure than the big projects. This level of exposure, it was argued, has led to greater scrutiny of projects and has helped create a more transparent and inviting process:

“it is my personal opinion that some of these Olympic developments are waaaaay less significant from an EI standpoint than a whole bunch of other stuff that is going on around here and yes, they are way higher on the public radar than some

other things are. There is just this public awareness of the Olympics and, so it is just a way different level of profile for how they are conducting their business... It has made it way more visible, it has made VANOC have to be much more transparent...but for each of the processes that I have been involved in there has been a clearly defined public participation step in more than one place...They had meetings that include reps from friends of Cypress, they had FOC people out on site when they were looking at things that were raised as concerns. They had some very direct input into solutions and considerations of options. It was a good kind of public involvement... (the public) came up with solutions that really reduced the amount of old growth that was being affected."

We may be left to wonder about the effectiveness of participation in projects that are not as visible to the 'public radar'. Since there is less attention to, and knowledge from other projects, does the public have as much influence as they ostensibly do with the Olympic projects? In response, some offer that 2010 Olympic projects will have a smaller chance of significantly impacting the environment than larger developments. However, 2010 undertakings, by virtue of their Olympic association will receive greater media and public attention.

No respondents believed that the public participation component of the Olympic EAs was limited by external or political pressure, and no one mentioned any interference by senior public servants to limit participation. NGO representatives all believed that participation meetings were open, and were not intentionally scheduled to make it difficult for the public to attend. So it does appear that many EIA 'best practices' relating to public participation were followed (eg. open meetings, participative) and NGO representatives expressed satisfaction with the public participation component of the EIA process. But there were calls for improvements.

A recurrent point brought up by members from each participant segment was that capacity barriers exist when it comes to disseminating studies and other information to the public and formal organizations. With shortened public participation periods, to ensure 'predictability' in the EIA process it can be difficult for 'concerned citizens'

to work through the information contained within a multi-document EIA. In this respect a summary which synthesizes EIA information and impact predictions would have supported a more informed and ultimately engaged citizenry.

5.1.4 How can public participation be improved?

One NGO representative raised the dual points of *time* and *resource* capacity as issues with public participation:

The assessment application is so wieldy to go through. It is really hard for an individual to picture what's going on and what they should focus on - especially with such a small time frame."

A government respondent concurred:

"It can be a complex process, complicated by the numbers of studies, and all the materials to wade through, that is a barrier. There are also a lot of people who are uninformed, or misinformed but they still have an opinion or concern that maybe is founded on bad information... the process could be improved if in the process there was some way to make it easier for people to know and understand the key issues, summaries of pertinent information... That is kind of what VANOC tried to do with their public meetings.... I guess things can always be improved, it is a question of resources and time...clear communication is important."

And a consultant mirrored both these above points:

"I thought it would be important, when a process like this starts, to engage the laypersons in this assessment and let them walk through with the contractors or with the whenever these things are being developed so a better understanding can be taken back to the community as it is quite unwieldy to understand, when looking at an EA, what laws are working to, then you get a document that is full of acronyms which lead to confusion. That would be one way I would improve it. Make people understand what the process is, what is the intent of EIA...Encourage people to participate, give them a role. Give someone in the public the responsibility to help in the decision, so when it is done he can go back and present the information saying 'I didn't sell out, I had all this info'. It always seems it is them and us..."

But it was also suggested that opportunities exist:

"I don't know if it needs to be improved (PP). It is an open process, anyone who is interested, anyone that wants info or to express an opinion certainly has ample opportunity to do so."

The consultant presented a way for public participation to be improved, but then opined that it may not need to be improved. Yes there is a bit of a contradiction here

but this reflects in part the open ended nature of the interview and in part the pervasive nature of participation as an EIA practice issue.

Another respondent agreed in principle that a more simplified summary of data would go a long way in engaging the public but pointed out that such a summary would take more time and money and may lead to onerous requirements for a proponent:

“It could be improved, but it would be at a cost because somebody is going to have to really vet the info and the positions and write, or attempt to write a pretty clear opinion or fact sheet...and to end up refuting one professional against another...PP is only valuable if it is informed. If it is not informed, it is only rhetoric. I think we got a bit of that. If the federal and provincial governments are willing and prepared to put money into that process without making it longer or more arduous for the proponent than yeah, go for it.”

The respondent also noted that summarizing such data may in fact lead to professionals being used to refute each other, but of course this already occurs in EIA hearings. One NGO respondent, who had noted that they had ‘managed to get through one of the EAs’ was suspicious of the reasons for a 700+ page assessment, which it was suggested, is full of contradictions where one professional refutes another:

“The application is over 700 pages including appendices...it is filled with contradictions and the document is so large and so dense that I question whether or not that was the specific strategic direction that when they put in the EA application to make it so extensive, and so all over the place that people may have some difficulty accessing that info... I have identified many different inconsistencies within their own information and that tells me that they just threw everything in the bin and put it forward.”

If EAs are summarized, and arguments placed in acceptable formats, discussion could be more effective and seeming contradictions in opinion could be analyzed and explained. Where such contradictions exist, they should be noted up front so the EIA process might better meet the tenets of best practices, enhance credibility and produce a more accurate understanding of data with ‘full transparency’.

One government representative explained that large EA documents are required to ensure that all data is presented, but they also agreed with the idea of making the data more accessible, so the public is able to respond within narrow time frames:

“When the experts get up and start talking people get lost in the language fairly quickly, there is probably space to do a little more work to bring this info into a more accessible form. One application we got there is over 3000 pages of info, and we have a 60 day public comment period. People are writing in wondering how they can comment on 3000 pages when they have a day job and a family but are concerned about the project. You need the 3000 pages to do the assessment but when you are talking about public participation...”

This respondent also stated that capacity is always an issue but procedures have been put in place to accommodate and inform the public; procedures that mirror some of the recommendations from other respondents. It seems (by the way that many of the respondents believe that this would be an improvement) that all EAs could benefit from early consultation and engagement with the public.

...I think the ideal (time money capacity-we are all doing more than one thing) thing would be when you have complex info you take members of the public and train them, orient them on all the language, this has been done with community groups, the community selects its own representatives. Actually s2s did this...they followed something called context sensitive design which is a more recent model for highway design...You set up features to avoid engineering works that are really major contrast to the environment...Part of that starts by forming community advisory groups. So you start with the communities really early...I think the ideal is to get the technical information accessible but the public who have an interest in it are also oriented. The meeting is somewhere in the middle. Trying to explain hydrogeology...Some things can only be simplified to a certain extent, beyond which you have lost the context and the significance.”

While representatives from all respondent groups had ideas about improving the public participation components, not all respondents believed the 2010 EIA participation process could have been any better:

- “I do not see anything lacking.”
- “...the EIA, not really. Do to the limits of the impacts on these sites.”

- “we were pretty solid and I think we are recognized by that and there is a substantial commitment to be out there, to be available... That we continue even after the approval process to get into the community, to get into working groups even after we were no longer obligated to and we continue to seek their input on a continuing basis and we expect to maintain the relationship right through the pre-games and games period... I’m going to tell you that as a point of pride our commitment to public participation has been very good. I don’t think we could have improved on it... (it is a) process that is working well to meet provincial requirements and the feds have gone along with that as a result.”

Most respondents were pleased with the public participation component of the Olympic EIA process. But ideas were brought forth on how to improve citizen engagement. Again, as with monitoring, enforcement, and follow-up it is time and money, and knowledge issues that limit the capacity of the public to become engaged in the process. Combined with barriers to information synthesis for broad understanding, the public’s ability to effectively participate in the EIA process is quite limited.

5.1.5 *What role do First Nations have in EIA?*

The four host First Nations have been full partners in the Olympic Games and have been involved in all the EIAs that are of concern to their traditional territories. There are very few formalized land treaties in British Columbia and with a desire to normalize relations with the provinces First Nations, current B.C. Premier Gordon Campbell has ensured First Nation participation and approval of all the Olympic projects. When one examines the publicly available documents from the EAO of British Columbia for the Nordic Center, there is a string of communications between the First Nations and the project proponents. Contained within these communications are comments regarding the ineffectiveness of the EA in reducing impacts and of issues dealing with promises made by VANOC and the province.

No member of any of the Four Host First Nations was willing to be interviewed for this research; as the issues discussed might have been considered too controversial or sensitive by the bands due to the compensation they received. It can be speculated as to why: perhaps they thought it may break good faith agreements with the province and VANOC; they lacked capacity to talk about it specifically, or time to comment; or there are potential sensitivities about how they have responded to 2010 issues. The research is admittedly missing an important voice because of the absence of direct First Nations responses. But one respondent was very familiar with the EIA process and First Nations participation; this helped bring an internal perspective which mitigated the absence of direct First Nations responses. All interviewees agreed that the First Nations should be involved and should benefit financially from the Olympics.

One powerful statement made by a respondent deals with the EA act and how, without environmental protection as its main objective it is easy to become, especially for First Nations who have serious capacity issues for participation, disillusioned by the process:

“To communicate with the working group, the proponent, the First Nations that environment protection is the first goal, not meeting the schedule, not just making sure the process is pure but that there is actually an improvement in the project at the end of the day. I think that goal is not expressed, that sometimes it gets lost in the shuffle. They feel like “well we had that meeting so we can tick it off and let’s move on. Lets get the comments in on the 3rd of June whether that is enough time or not” so there needs to be more focus on the environment. Make sure there is an adequate amount of time for getting comments in, particularly for First Nations...The councils of both nations do have an obligation to their members to make sure with due diligence that the developments are done right...the councils have said “yes we support the Olympics, it does not mean we support bad development of the Olympics, we insist that these assessments be done correctly...”

This respondent continued by expressing his concerns that the EAO is not as assertive as they perhaps could or should be when it comes to protecting the environment:

“The fact that the EAO is more of a process monitor than an advocate for environmental protection continues to be an issue; it is almost false advertising. You would believe that an organization with environment as its first name would have some role in making sure the environment is protected. In fact they ensure that that function is dispersed to those agencies and they bring them to the table, and maybe that is okay, but there is certainly time when the EAO needs to be more assertive in what they are doing.”

Best practices for EIA include: not only timely reviews but a credible process. If legislation is supposed to be used to predict environmental impacts, then the agency responsible for the legislation has to have a transparent and open process that is geared towards the prediction and mitigation of the impacts. Already discussed have been capacity issues for monitoring, enforcement, and follow-up, three components that are integral for impact prediction and mitigation and if they are not sufficiently implemented, the process becomes less credible. This respondent’s opinion points to legislation that is in place to serve only as a bureaucratic benchmark for following policy, and not for the adaptive and collaborative processes aimed at the protection of the environment through impact prediction and mitigation.

A consultant pointed out that the concerns of the First Nations have been expressed and that a great deal of effort has gone into addressing these:

“First Nations Concerns have certainly been expressed. I believe that the government agencies and VANOC have gone a long way towards addressing the expressed concerns. It hasn’t been without some pretty rigorous negotiations and active discussions and expenditure of money and time over a prolonged period but none-the less the agreements are in place and continued to be developed...”

From the above statement it is clear that the respondent has great hopes for the future possible co-operation between First Nations, the government and proponents in the EIA process, a hope that is shared with other respondents (discussed further below). The industry consultant carries on by pointing out that after a wild spirit place was identified, co-operative efforts were made to ensure that it would not lose its cultural importance. Obviously there will be some negative impacts on traditional uses due to

the developments, it is an outcome of development; it is the charge of the EIA process to mitigate those impacts as much as possible by following collaborative methods of impact identification and mitigation and the maximization of benefits:

“The Squamish Nation has also identified a wild spirit place, a *payakasuu* which is on the southwest side of the Callaghan valley, and it looks more and more that there are going to be some set asides there in terms of land management... So yes there has been some negative effects, but out of that, and through these discussion, and having a forum to hold these discussions, there could in fact be some benefit that could be good to the Nations.”

A common theme in the interviews was that there was a belief that while the First Nations could benefit from the Olympic developments, they were ‘paid off’ for acquiescence in the EIA process. The best example brought forward, was the Nordic Center EIA. There were a series of communications between the Squamish and Lil’wat First Nations and the EAO. In one document, the Chiefs of the two Nations demanded more comprehensive archaeological impact assessments be undertaken, ones that would cover the entire footprint of the project and not just individual sites, as well as having more focus on cumulative effects from increased visitor use of the valley (Chief Leonard Andrew, & Chief Bill Williams, 2004). In another letter to the EAO from the Lil’wat Nation, cumulative effects, and commitment to the implementation of traditional knowledge, among other issues are again raised as a concern and the underlying theme of the letter are issues about VANOC’s commitment to reducing impacts on the Nation are questioned: “What is less clear, however, is whether VANOC is willing or able to adequately mitigate the impacts of the project on our lands and our people” (Chief Leonard Andrew, 2004) (this is a letter dated December 21st 2004).

Over the next few years, and culminating on May 7th 2007 (Atkinson, 2007), the Squamish and Lil’wat Nations received large blocks of land from the province for

development for Olympic Legacies. The lands are conservatively valued at hundreds of millions of dollars. A First Nations cultural center is being built (by First Nations contractors and artisans) in Whistler as part of the Olympic legacy; concrete barriers are being created by a First Nations construction company; trees from the sea-to-sky highway expansion over the Eagleridge Bluffs were delivered, free of charge, to the Burrard Band for processing.

One NGO respondent was surprised by the lack of support from the bands for members of local First Nations who opposed developments and believed the Bands of the four host Nations were paid off for their participation and consent in the EIA process and its outcomes:

"I tried to engage the Burrard band, one of the chiefs wrote an interesting critique of the EA. I tried to contact her and they were not interested in taking up any of the battle with the protesters. In my estimation they were paid off. They get all the logs from the highway delivered to them without any effort... The Lil'wat band has had a cement factory developed with the s2s people. They produce the barriers and were standoffish towards me. Even when Harriet Nahanee came and joined us, a relative of the ancestral chieftain line, she was not recognized by the main part of the band. When they arrested her, it was band police who came to get her she was totally marginalized by her own band, not recognized. When she died (*of pneumonia after being released from prison*), she became a martyr."

Conversely, another NGO respondent believed that while First Nations were benefiting financially, they were staying true to their values. This respondent also commented on how well the provincial government has included First Nations:

"First Nations involvement has been absolutely in the core of things. It is a heck of a way to stay out of court and I have to hand it to the premier for that. It certainly has proven to be quite good for First Nations. Between the land transfers that they are getting and economic opportunities and opportunities for employment, it is very positive from a First Nations point of view... their participation is well documented... as far as I can see they are staying very true to their values."

One consultant pointed out that the First Nations used good timing to benefit from the Olympic Games:

"The First Nations got 300 shares in Whistler, Lil'wat got 300 in Pemberton, Squamish got 300 down there...that is another thing, timing wise they

were able to use the Olympics very well to leverage their stake in the negotiation process, they did well.”

This respondent continued by discussing the problems of applying Traditional

Knowledge in a western-science empirical based EIA process:

“How TK is utilized, I’m not sure. Whenever you are doing EIA you are looking at science, veracity, the ability to duplicate results, how do you apply (TK to that), I mean it is good anecdotal info.”

Another respondent offered an opinion that suggested traditional knowledge is of

little use in some EIAs:

“(The land) had already been logged so the value to the First Nations was limited. Years and years ago it was probably a valuable resource for fishing...but times change. There are still lots of lands around that have not been touched...I think TK was valuable to First Nations to document their history but to us, to be honest, it had zero value because of the nature of the sites, it was good for them.”

The respondent continued with some blunt comments regarding First Nations

participation that lean towards an apparent pay off and presents a very western-

science-based biased understanding of traditional-historical ties to the land:

“To be brutally honest they put their hands out and they got paid a lot of money...we have endeavored to do some contract work with them, but they are not really set up to do much...VANOC has done a good job at hiring one of the companies that does suitable work in the Nordic center to the point that they were busy enough there that they could not work at our site on works they are qualified to do. Other than that they will have pretty much no involvement with our site. They are getting a chunk of money from the government for some reason related to our site...— they had been given 6.5 million to either build affordable temp housing at the site then take it away to bring it back to their reserves... The First Nations were also given a whack of land and a whole bunch of development rights...plus in Whistler they (First Nations) got 400 bed units...bed units are effectively how they dole out development rights, they have been given in the neighborhood of 400 bed units which can be valued in about \$100,000 a pop so \$40,000,000 worth of development rights, plus free land, so it has been pretty good for them. Our site is overlapping the territories of the two local bands, it was never a home site or anything but historical fishing and hunting and terrain...I guess they did roam this land so, who am I to say they don’t deserve it.”

Another respondent believes that the 2010 games are not so much the ‘green games’

advanced by VANOC but are instead becoming the ‘First Nations games’, which are

tangentially and inherently ‘green’:

“When we first heard about 2010 being there, it was talked about this will be the green Olympics, it was sounding like the environment was going to be the real focus, but I think that by a long shot, First Nations focus has been more embraced... It will add a unique west coast signature to these games. I think a lot of First Nations values are consistent with environmental values...they have been very involved in the EA processes...”

This respondent pointed out that the opportunities presented by the Olympic developments have been a catalyst for inter-Nation co-operation and First Nations involvement in land use decisions into the future:

“I know that having opportunities to win contracts to have jobs to have some authority on how these lands will be used in the long term, I think that is really what it is about: ‘we want to be a part of this’ so I think being part of the WLS...it has made them, the First Nations work together in ways that, I don’t know what would have been the sort of catalyst for that to happen the way the Olympics have... It has made them work through some pretty tough issues that they may not have bothered tackling if it had not been for these pressures and these opportunities, they are going to figure it out or miss the opportunities.”

A government respondent echoed this notion that the opportunities being created due to the Olympics have sparked changes in the way First Nations are consulted in dealing with land use decisions:

“First Nations involvement has been pretty significant from what I have seen. On the legacy society we have the chief of the Squamish nation as well as the chief negotiator of the Lil’wat First Nations and so they are fully engaged in everything to do with the post-games operation and ownership of the three venues here in Whistler. ... I think they are pretty engaged, particularly up to the level of capacity they have to be engaged and everything under the sun in what is going on... I would say they were more engaged than any of us...”

While making it clear that the First Nations benefited financially because of the developments, this respondent continued with the belief that long term partnership benefits that were gained are a very important outcome of the Olympic EIA process. Benefits that will lead into a more co-operative future:

“I would say First Nations concerns have been addressed. There is several hundred acres of free and clear land, there is community forest, there is logging rights, there is wild spirit places, there are seats on the boards, there is home journey programs; huge investment in the cultural center over here. I think this has been significant turning point for both First Nations in their partnership and participation in what goes on up and down in this whole corridor. The recognition of what meaningful consultation really means, which I don’t know if it was that well understood or known before, it certainly is a lot more now...It was the responsible

thing to do and it was a catalyst at the right time at the right place where they were ready and we were ready to talk.”

With parallel agreement, this government representative found the co-operative abilities between the different participants in the EIA process to be encouraging.

However, this respondent notes that agreements in principle are not ideal:

“One thing that happened with the s2s is that there was an agreement in principal while we were doing the EA that was reached between Squamish, Lil’wat and the government. The details were not available, they were to be worked out later but that was an agreement in principal. . . we were able to make our decision based on the fact that there was an agreement in principal and that we had letters from the First Nations legal counsel saying we will not disagree with the EA and so on because of the agreement in principal, but then you still have to work out all the details. So that is not ideal, First Nations will say that we shouldn’t just have an agreement in principal, all that stuff should be worked out first because here is the project that is in what we identify as our traditional territory and it will have certain impacts.”

While agreeing that the First Nations have been actively engaged in the EIA and Olympic process, one respondent was less optimistic as to the impact that the First Nations have had in the EA process noting that it was the courts that originally led governments to engage First Nations:

“First Nations are supporters of the bid. They are signatories to the shared legacies agreement with the province and VANOC which discusses the benefits they would gain during and after the Olympics: training, jobs, cultural facilities. . . they have been fully engaged in all of the assessment processes. . . They are heavily involved in the Olympics: the conduct of them, the construction of the facilities and the conduct of the assessments. . . Clearly a lot of the court cases that have driven the need to engage First Nations, to meaningfully address their concerns should be more officially recognized in the EA process.”

It is in part through the acceptance of traditional knowledge that First Nations concerns can be more officially recognized. Though the EA acts discuss traditional knowledge, in the case of the Olympic developments it has not had the influence that it could have because of an unwillingness to incorporate it on an equal level as western-science based data. This unwillingness has already been presented in the above discussion.

One recurring theme in the respondent interviews was the capacity for First Nations to participate in the EIA process:

“Not all First Nations have the same capacity to participate. Those are some challenges that need to be addressed as well as timelines and resources. I know that is quite often a challenge that needs to be recognized and addressed by the proponent and the governments that are working with them.”

In addition to capacity, the summarization of the data for widespread understanding, much like with public participation, was also seen as an important issue:

“Capacity first and foremost then trying to come up with the better process that can that communicate to the general community about the project.”

Government representatives and consultants agreed that more flexibility in timelines must be available so First Nations have a chance to respond to all the documents that they are asked to review each year:

“There needs to be flexibility in the timelines, enough lead time to do it. The First Nations understand the need to move this stuff forward, they are not looking to stand in the way but it is just the reality of getting comments back.”

With limited financial and personnel capacity, combined with traditional First Nations conventions (these are separate Nations with laws and customs of their own), participating wholly in the EIA process becomes difficult. With the multiple assessments linked to the Olympics all happening within a small time frame, this limited capacity becomes even more prevalent:

“First Nations have real capacity restraints... They don't have a ministry of the environment or fisheries. They have to hire that help; they get hundreds of referrals per year from the provincial that need to be reviewed. They are often short, internally, of trained people to do that plus they are a nation... So it is not like sending a memo to the ministry of X and saying we need a report back in 3 days, it is not going to happen because there are these internal processes. Quite often we end up arguing over timing, First Nations cannot legitimately comment on this complex issue in a week, or sometimes even a month. Even getting a signature on a letter, being a joint process between the Squamish and the Lil'wat. There are two nations, a couple of hundred of Kilometers apart. We have to find the chiefs who have 40 items on their agendas already; we have to get them to review, understand, comment on and sign the joint letter that can go into the agencies... So I think there is a sometimes grudging acceptance that things work slower in the First Nations communities just because of those various challenges.”

A government representative mirrored the above sentiments:

“What I have heard (for First Nations improvement) is #1 is capacity, certainly the resourcing. First Nations are asked to look at all sorts of things. These are the big projects but every forestry tenure, every permit is usually referred to First Nations and that is on top of everything that being a member of the council, running the government of their people. It is a lot of extra time, these are big documents. So capacity is the #1 thing we encounter...”

This respondent also noted that the EAO does provide some money to the First Nations to improve their ability to meaningfully participate but also realizes that it is probably not enough:

“The EAO has some money available...But still relatively speaking it is a fairly limited amount of money. So I would say capacity funding is a big one from our perspective...”

This respondent also noted that cultural differences still play an important role in the ability for EIA to accommodate a non western-science based epistemology:

“It is much more challenging to go out and meet with people in a community where you don’t live and are not conversant in the culture, and to simply put on the government hat and to say “hi I’m here to talk to you about this project, and here are these documents, and what do you think”. It is a clash of cultures in a way; it is not how the First Nations would approach government if it was the other way around... It is not about asking for comments on a document; it is about getting people to understand how this process works...I think there is progress that could be made there. It is time consuming and you have to get a lot of people involved in it and that is probably part of the limitation. It is also capacity driven...we do AIUS, we do traditional use studies, these are meant to inform the EA. Because of the nature of the information in them they are not always made public, its one thing that we wouldn’t post unless First Nations said yes you can share that info...We are obviously trying to make sure we don’t infringe on First Nations rights and titles, some of them will be obviously linked very much to the environment. For example not affecting areas of hunting and fishing - that fits very well with not adversely effecting fish habitat or vegetation and wildlife. The collection of plants for ceremonial or traditional purposes, these are the things that can be incorporated into the EA, and they are, so that’s one of the ways we bring TK into EA.”

An industry consultant explained the impact of TK on the EIA process and introduces that even within First Nations communities there is not always consensus.

“In the extent that TK is accessed through an EA process, the AIUS is the main vehicle. That is the document that the First Nations write...The AIUSs were instrumental for providing a factual basis for forming negotiations with the province over the impacts of the existing s2s over the proposed upgrades...”

The respondent continued by noting that there is always a discussion between financial benefits of development and the traditional cultural importance of leaving some lands less-touched:

“Even within the First Nations communities, there is not a uniform view of what ought to happen. Some say that ‘we have to develop there we have to make some money’, others say that ‘no we have to keep that, keep it for our traditional purposes’... The Squamish and Lil’wat, have used some of their land that they have been granted under the shared legacies agreement in the lower Callaghan that they plan to develop too. So they recognize that development is happening in their territory and they can get some benefit out of it for their communities. But yes the effect on fish and water quality and grizzly bears and the ability to forage, to practice the ceremonial elements, the spiritual elements of their culture, those losses are known to the First Nations.”

Along with business opportunities and land, one respondent believed that First Nations will also benefit from the Olympic developments through an increased appreciation of traditional knowledge and a commitment to integrating traditional knowledge into empirically based wildlife management regimes - beliefs that, when contrasted with the responses, seem questionable:

“As we move forward we are going to be looking to them to help us do some long term research in terms of wildlife management, primarily because of their interest from a traditional perspective in maintaining wildlife resources. But we also want to get their perspective on how to manage for these species.”

Finally, one respondent, while agreeing with respondent 4 on the future possibilities of integrating TK more wholly into EIA, gave insights on how the EIA process could be improved to ensure full collaboration between governments, First Nations, and project proponents, pointing to a need for increased capacity and a requirement to understand the traditional and historical uses of the land through community involvement:

“There are several fronts where First Nations participation could be improved. You have to get past lip service...and that involves real commitment to capacity...provide some way for them to effectively participate in the process and additionally you need to provide some way for them to get arms length objective

advice so when they do participate it is from an informed perspective...you have to get into the communities and have presentations with the communities and involve the communities just because of the nature and way that the First Nations continue to live. The focus on community and community decision making is much larger issue than it would be in a number of other communities..."

The respondent continued by touting the benefits of accepting TK, for it is another perspective on knowledge that western-based science cannot grasp or use in empirical studies. The respondent also alludes to an incremental level of development that, without increased efforts to include First Nations in development decisions, will force them from their traditional lifestyles:

"Their concern is that it is a consistently shifting environment and they are being consistently precluded off the land on the basis of progressive decisions. Their continued traditional uses have to be taken into consideration.... it is more time, and money, and respect, none of that is expeditious or easy to come by...I think you do need to plan for it and you do need to provide a forum for participation where their points of view can be expressed as they do have different points of view, they do have a different perspective. It is one that comes from a long association with the land and I think it is something we have to do a better job to listen to."

There is little doubt that the Four Host First Nations, who are full partners in the Olympics, have politically and financially benefited from the developments on their unceded territories. They have been integrated into land use planning processes more intimately than previously and have gained development rights and development contracts. However, there are still factions within the First Nations who are actively opposed to the Olympics as they see the loss of more of their lands to development forces as being theft. Ceded

Even with the inclusion of the First Nations in the land use and planning processes and the EIA processes for the Olympic developments, traditional knowledge is still not fully accepted as adequate evidence. When viewed from a reductionistic western-based scientific approach, traditional knowledge is not

repeatable and not reducible into a set of variables. It therefore cannot be used to make conclusions, only to direct discussion.

A more comprehensive science that does not attempt to reduce all elements in a system into individual and isolated variables, and one that incorporates First Nations ideas of interconnectedness and oneness, is ecology. If EIAs were undertaken with a better understanding of systems complexity and ecological ideas, it would not only be more effective in protecting the environment from misguided developments but would also allow for a deeper, and perhaps for the first time, a true integration of First Nations' traditional knowledge

5.1.6 *Who or what has the most influence in the EIA process*

In understanding EIA effectiveness it is important to gauge how the key actors involved in the EIAs felt about influences in the EIA process. This is to discover where participants felt the main influences were originating from. Most people believed that it was other groups that had the most influence.

All NGO respondents believed that the project proponents had the most influence in the EIA process through downplaying information brought to them from third party sources and by seemingly not having the requirement to follow strategic planning documents while constructing the developments:

“Probably the developer, they have more influence than lay persons or even scientists. We brought scientists to the site and they went through. We brought in a lady who had a particular interest in fragmentation. And she had a huge disagreement with the notion that you are pushing a road through an area and that you are fragmenting one area from the other that no significant fragmentation would occur.”

This sentiment was echoed by another NGO representative:

“The proponent, they have just been down playing and belittling the requests of info that come forward from the MOE, as supported by the s2s LRMP, and the MOE is making no headway, it is pretty clear to me that the proponent VANOC is in the strongest position here.”

One consultant agreed with the NGO responses but also believed that First Nations also have a great deal of influence due to their unique legal position and also that the EAO has influence as they set the participant lists and have final decision making power:

“Well the proponent is certainly influential in that regard and that harkens back to my original statement about this being the Olympics, a government endorsed, supported and funded initiative so clearly they have a lot of influence in the way this or any other government process would be operated. Clearly the EAO does have a fair amount of scheduling (power)...who gets invited to the meetings and that sort of thing. At the end they write their assessment report: that often reiterates the comments provided by the proponent in their EA. The First Nations, because of their legal clout, because of the requirements to engage them, have a fair amount of influence over the way things unfold.”

A government representative noted that the proponent had restrictions placed on them by the IOC and that is a definite influence:

“The proponents have a lot of restrictions put on them by international sport associations and ‘that location doesn’t allow us to meet that criteria’. A lot of cases we have the criteria that we need to meet, here are the only locations where we can accomplish that, so it is an alternatives assessment based on a set of criteria.”

One proponent agreed with this sentiment, but also noted that it depends on the issue as different government agencies have influential roles. The respondent presented the idea that it is not VANOC with the most influence; instead it is the ultimate proponent of the Olympics - the IOC.

“It depends on the issue. If it is a fisheries issue then DFO is first base, but there are matters of local government where they have authority. And there are matters where the stakeholders have a lot of influence in particular to the post-games use of the facilities.... the IOC... I’m thinking of the media village in Squamish using cruise ships, most of us thought that that was a good idea, the IOC did not think it was,... the men’s DH course. The IOC and the federations wanted it to go the one way, environmentally it was not the right way to go, the IOC and the federations agreed with us and our position.”

One government representative believed the responsible authority has the most influence as it is the group that lays out the EA and has final approval:

“It is the government RA that ultimately are the ones who decide. In this case it is the proponent ensuring that the EAs are completed but those are being completed with the guidance of the federal government so the federal government indicates what they want to see in the IA, the level of detail.”

The opinion that the RA has the most influence was echoed by at least one proponent:

“our RA should have been the one driving the horse, but the horse was riding him... the RA says, well I don't know anything about that so you tell us what we need. There was no one calling him out on, other than us pushing back saying this is ridiculous. For the activities we are doing the stuff you are asking us to do makes no sense at all. But they had a lot of power as the RA deferred to them and they enjoyed having their little moment of glory.”

One government representative was impressed by the work the province was doing in chairing the meetings (in marked opposition to the above opinion) and also believed they had the most influence:

“the province — (they are) also doing a good job of chairing the meeting and looking for responses from everybody and not allowing people to just sit there and not say a word.”

Another government representative pointed to the consultants as the group holding the most influence as they write the EA and also noted the power that the public had in the EIA process:

“In drafting it, probably the consultant team... and the community had a significant amount of say for the location of the buildings.”

It is interesting to find out where the different respondent groups believe the influence rests, never pointing to themselves.

5.1.7 Are Strategic and Cumulative environmental assessment strategies currently being used in the EIA process in Canada?

5.1.8 How could these tools improve the current EIA process?

Strategic and Cumulative environmental assessments are being recognized internationally as important tools in impact reduction. In Canada there are requirements for SEAs to be undertaken on government Plans, Policies, and Programs. Since the Olympic Games are largely funded by the federal government, a SEA was required. The SEA revealed that the cumulative effects of the 20 Olympic related project developments would not have a significant adverse impact on the environment as funding for the Olympics was approved by the government and they are happening. Interviewees expressed concerns about the weaknesses of strategic assessment and lack of strategic planning for a broader range projects like the Olympics, but this may reflect the perception that SEA lacks efficacy, and that it is difficult to apply. This is a notion seemingly widely held in some governance and consultant circles, but lacking empirical study (Hanna, 2008b).

Cumulative impacts for projects must be scoped in as part of an EIA being regulated by the CEA Act. A government representative reveals in his response that the provincial process in British Columbia does not require cumulative effects to be assessed:

“We do not have our own process for CEA; we look to the federal process on all of our harmonized reviews. Talking about scoping for CEA and where you stop, that’s probably a discussion you have with them. We basically defer this to the feds on this, we don’t even comment on the CEA; we totally leave that to them. So s2s for example, the feds look at the CEA and they felt that it had some deficiencies. They asked for some work to be done and there was follow-up info including a revised CEA for the project.”

There are, however, limitations to the area to be scoped and what will be considered an impact of the project (or additional projects in the same area). Eventually the scope must be limited to keep from having an open-ended discussion as to the limitations of the impacts caused due to a development:

“There were certain issues like this which were beyond the scope of what we could look at. When we did the cumulative effects assessment, the federal government had to make a ruling on defining a scope; we stuck to defining impacts of the corridor and could not get out and beyond.”

A common response across all respondent groups was that strategic planning is an important tool for future impact reduction. Long-term planning strategies work to set up a unified development direction for an area. One respondent questioned how the Nordic Center and recreational trails fit in with the Land Resource Management Plan that was created for the sea-to-sky corridor:

“If it goes ahead, it will go ahead with a conscious decision that we are not going to follow the direction of the s2s LRMP, the highest level plan of land use that exists in B.C. we are going to ignore that directly and not do adequate planning or mitigation around our stated grizzly bear (goal) direction as stated in section 5.4 in the s2s LRMP.”

A consultant, speaking about the same project, questioned if the cumulative effects of the Olympic projects and related developments have really been assessed due to the site-specific nature of Canadian EIA:

“You would think that the CE of the Olympic facilities plus everything that is going on to that area would be a CEA, and would certainly speak to SEA...the EIAs are done on a site, when they really need to be done on an area, on a regional basis and look more broadly so you can have the capabilities to move things to a better place or identify activities that have been displaced, with regard to the trails...”

This respondent continued by identifying an impact that is directly related to the Nordic Center but has not been assessed:

“Public winter access is being moved from the Madly and Callaghan valleys to the Brandywine and the Rutherford valleys. That was not studied, that was an indirect effect to the project. VANOC said well we did not do it, and the province said well I don’t think we did it. Never mind the ministry of forests have already spent hundreds of thousands of dollars to accommodate those people in the Brandywine, so somebody has done it...the First Nations since they have an interest in the whole territory said ‘well it is nice you are getting the mechanized access out of the Callaghan, but you are just moving them somewhere else, what do you do about that?’ Maybe there are more grizzly bears in the Brandywine valley, we don’t know. Maybe it is benign, but somebody needs to answer that question.”

The creation of the Nordic center has led directly to the motorized recreation trails being moved from the Callaghan Valley to two other adjacent valleys, but this impact is not being questioned or studied as far as can be determined. This fact should have led to the impacts of these new trails in the adjacent valleys being assessed as cumulative effects of the Nordic center development.

A government representative related the same issues with the limitations to cumulative effects assessments as being too narrow in scope to comprehensively understand the potential impacts from a set of developments, or a development path:

“The First Nations will say to me “yes it is about fish, but it is about more than fish, a fish is in the river we can catch a fish and eat a fish, but you have to understand that we don’t look at that as just a fish because there are so many things culturally, it is integral, it is holistic, you can’t just break it down to be a fish, and just say we are looking after fish. It is indivisible, you can’t pull it away without wrecking the whole” So when we start talking about things like impacts to fish and fish habitat that is so reductionistic for First Nations as we have actually lost the quality of something that is understood implicitly by First Nations but not well understood by us in the western world.”

The current reductionistic, western-science based approach of many impact assessment programs, which are centered on individual sites with no integration of results, does not allow for cumulative effects to be effectively assessed as each component is being looked at individually and not as a smaller part of a larger whole. The respondent continued by noting that it is this reductionistic and narrowly framed viewpoint that limits the ability for EIA to assess cumulative effects of incremental development:

“The First Nations were saying to us that ‘the cumulative effects should think about 20 years from now: Backcountry recreation, or areas that are more private, there will be more access. So that is an impact on us, on our practices on our culture and that should be roped into the CEA.’ This is where EA becomes a little more complicated because how far out in your timeframes can you realistically forecast and predict that the project that you are looking at in combination with other projects that you are looking at will result in a particular effect, or will not. Who knows what government policy will be 20 years out, who knows what the economy will be like 50 years out.”

What this suggests is that a reductionistic approach employed in EIA is the limiting factor to assessing cumulative effects with an understanding of sustainability: If we are not going to have assessment strategies that look even 20 years into the future, how will development be ultimately sustainable?

Finally, one respondent held that EIA is not designed as a planning tool so doing SEA with EIA as your guide will be of little use. Of course this is quite contrary to most EIA theories, which certainly see EIA as not only a planning tool but as an integral part of the planning process. Strategic assessment must be a guide for sustainable development which looks well into the future and unless mega-events like the Olympics are comprehensively assessed for sustainability, their cumulative environmental impacts will not be known:

“...well that is not the scope of the process and I think that is what you are touching on when you talk about the Olympics as a whole, same answer, it is not what the EAA is designed to do.

I know what you are getting at though, we don't look at that bigger picture...the EAA is not a land use planning tool, that is not the role, so you are taking about bigger than project specific, and we are project specific process, so I think once you have gotten too far away from that, and you can no longer define it in terms of the project, then you have gone into another realm. Somebody is presumably looking at it.”

An EIA consultant agreed with this notion and questioned cumulative impacts by pointing to the CEAA itself as the problem for the issue of dealing with cumulative effects in an EIA:

“The EAO and CEAA driven processes that apply to VANOC's Olympic projects are not different than others in terms of the weaknesses in the conduct of these studies. There have been technical issues about the amount of time in the field to collect data, there have been questions raised about the conclusions reached about whether or not adverse effects exist, both the adequacy of the mitigation or compensations, about the CEA, which is not unique in any means to this assessment, but the way CE are addressed under CEAA they are largely driven to be disingenuous...”

The respondent also noted that cumulative effects are difficult to bring to light in an assessment as the threshold for a 'significant impact' is arbitrarily set and EIA is not set up to handle longer term development paths:

"the feds will get quite concerned if you say there has already been a significant effect, we are not going to make it any worse, that is not an acceptable response, that is a serious, serious flaw in the CEAA in the way it was written and in the legitimacy and honesty in the assessments. It is a serious problem."

Expanding on the thought, the respondent believed that cumulative effects are not assessed properly because of an allergy to the word significant, which if it appears in an EIA document, ensures a lengthy and costly assessment process. The respondent introduced the idea that if you scope something into a large enough area most impacts will become insignificant:

Unless this allergy to the significant word is expunged, there is no point in doing a CEA. they are a charade... We will look at the entire Van forest district "well we are only cutting this tiny area of trees in here, it is just a little more old growth, it is really not significant." Take the planet earth, or the galaxy, you take a big enough area and everything becomes less than significant, but none the less that is the fact that has been taken. And it has been taken with the complicity of the federal agencies as they don't want to see 'significant impact' show up anywhere in a report. It makes their lives hard, it kicks things into the stratosphere...who would want that to happen? So you will move heaven and earth, tell some pretty stories to make sure that doesn't happen. Well why even bother?..."

The respondent concluded the argument with a rather bleak outlook on the ability for EIA in Canada to properly assess cumulative impacts:

"The point of CEA was to overcome project by project reviews and we have lost sight of that. It has become this arcane statistical, scoping charade that has been set up to avoid creating a significant effect, let's not do that anymore. Lets do it right. Lets do it honestly, or lets not bother."

This consultant also had thoughts on the credibility of EIA in British Columbia where the logging industry and parts of the mining industry are exempt from assessment.

The cumulative impacts of following a path of incremental development of one valley after another have to be assessed under a comprehensive framework to ensure sustainability.

“That whole strategic question...are all those valleys in our territory going to be picked off one at a time? Who is exempt? The forest industry lay waste to whole valleys of old growth, it is their business, it is what they do! So here poor VANOC comes along and wants to cut 38ha of trees to build some trails, which strikes me as a inordinately large area to build trails but nonetheless, and meanwhile the forest industry is logging thousands, tens of thousands of ha of old growth, because that is what they do. And do they do EAs? No, they don't. They are exempted from that, they are exempted from the bird windows, they are exempted from all kinds of things, it is ridiculous. Why is that? When you do SEA it has to be comprehensive, you can't have exemptions for favourite industries. Whether that is mining or logging or whatever it may be.”

Exempting certain industries from environmental protection requirements may have short term economic advantages in terms of employment and investment, but the long term negative cumulative environmental impacts of unsustainable development will have greater negative economic consequences and outweigh any short term advantages (Stern, 2006).

One final point dealing with cumulative effects is the argument brought up by a respondent representing an NGO, as well as one that is discussed on the website of a group who is analyzing the Olympic Developments: Olympic Watch. The argument is that the Olympics are being used by land developers to fast track projects and further capitalize on British Columbia's building boom.

“There are two land owners on the overland route. One is the city of West Van and the other is British Pacific Properties (BPP) who are a substantial land owner in West Van...they are in favour of this route as they will be able to develop their properties. Plus they are getting cash for the roadway going through.”

The idea that BPP is selling roadway land for cheap so they will have access to their other land completed for them, through government funding, and this will open up the possibility for their lands to be developed for housing, with profits in the millions. How much influence, if any, the developer had in ensuring the overland route alternative was chosen was not a question addressed in this study. What can be asked here is if the cumulative impacts of the potential for future development along the

overland route that fragments the Eagleridge Bluffs was adequately assessed in the EIA process. Were the impacts of the potential housing development comprehensively thought through and included in the EIA for the highway, or for the developments occurring farther north in the corridor, as certainly, the cumulative impacts of such a development would be within the scope of any best practices environmental assessment. Were all of the projects assessed together for their cumulative environmental, social, and economic impacts over the lower west coast of the province?

All of this highlights a chasm between EIA ideals, or EIA theory, which places EIA firmly within the realm of strategic tools, and as being central in good planning. In these instances, practitioners clearly do not view good EIA the same as good planning – pointing to practice, capacity, and implementation problems.

5.2 Harmonization

The Callaghan Valley Nordic center was a harmonized review and when the recreational trail component was split off from the Olympic site, it too became a harmonized review. VANOC opted-into the provincial EA process for these two assessments. The Cypress Mountain project was a harmonized project between the federal process and BC parks. The Vancouver Conference and Exhibition Center expansion as well as the Canada line and the Sea-to-Sky highway rebuild were all harmonized as they triggered both the federal and provincial EA legislations.

5.2.1 *How have the Federal and British Columbia's EIA processes interacted in the context of 2010?*

Half of the respondents believed that harmonization should occur in such events. One consultant went as far as to say that the process is not really harmonized, but that two very separate processes took place. The respondents from NGO groups were not willing to accept that a harmonized review produced better assessments and called for two independent studies to take place so information can be triangulated to produce a more comprehensive review.

“No (produce better assessments)...you triangulate info, you have the CEAA and the EAO and the proponents and the consultants...the more eyes you have on a project of this significance, they better the quality of the decision in the end... you might get quick decision you might get strong decisions, but you do not necessarily get the right decision. So I'm very interested in these kind of decision be as broad of possible, and especially for something important like this...”

The respondent continued by accepting that two parallel EIAs would be more expensive but environmental protection should be paramount and not efficiency of producing assessments and decisions:

“Should be independent studies, and it is not...I don’t suggest that because I see it as being more efficient. From a tax payers, sheer out of their pockets point of view, it is less efficient, there is no question about it. Does it lead to better decision? In the long run, particularly about things that are potentially irreversible on the environmental impact side...And that is the higher priority, if our objective is just to do things completely efficiently at the lowest cost, we can do that and end up with very little out of it.”

Another NGO respondent was concerned that the personnel from government agencies were inconsistent, constantly changing. Harmonization was not ‘very smooth’ because new people are assuming new roles, leading to more time needed to become familiar with harmonization capabilities, and to develop interagency relationships. The respondent also questioned the motives for transferring people away from an EIA:

“Early on the federal EA officer wrote a letter stating, that in the application there were not enough questions answered and that she would not approve the application. A week later she was transferred off the job. No one would ever say she got transferred because of what she said but her supervisor had to write a letter retracting much of what she had said, indicating that they had not meant to be so tough...The DFO person moved into the CEAA office, the players kept changing, it always seemed like they were overwhelmed, too much on their plate when we would phone.”

This echoed the response from a consultant which dealt with replacing contractors who are not as co-operative or lenient about stretching or breaking the rules, with ones who are. In this respondent’s experience in the EIA process it seems the harmonized processes are subject to similar pressure as individual EIA processes. But one respondent who worked on the Nordic Center suggested that a harmonized process produces better assessments by just integrating timelines

“It is really clear to us that it does (produce better assessments). I mentioned earlier in this discussion that it is really important to have all the people around the table at the same time...And when you are working to a schedule like we are, we have a saying, there will be no games in 2011. Schedule is really important and the harmonized process allowed us to manage that approval time...”

This respondent also relayed that the federal processes 'is too unpredictable' when it comes to timeframes, and that by linking with the provincial EIA process some manner of timeframe could be established:

"The only truly harmonized review was the Nordic center in the Callaghan valley...The Nordic center is a complicated project, it is a large project and we had very tight timeframes for the Nordic center and the sliding center to get them going...a lot of work to be done in a short period of time...Without a harmonized review process...I don't think there would have been a timely review. There were just too many issues on the table."

Government representatives were generally of the opinion that the harmonized process produces better results, and use resources more sensibly:

"Only one process was harmonized, though we did work with provincial departments to answer questions...It makes sense to have one review with one set of reports and conclusions if possible. I think it does lead to a more effective assessment... It leads to a more focused assessment."

Another government representative with the same opinion:

"I don't think you would ever want to do it separately. The provincial takes the lead and the federal government is at the table and adds in the things they are looking for... I could not imagine two different processes, two different sets of stakeholders, two different sets of public meetings and all that co-ordination...The Nordic Center did create some consternation between the provincial and the federal government...there were a lot of issues to be dealt with out there.... If it had been dealt with in the beginning it would have been great but the planning window was too small and the project was too big."

Another respondent agreed with these sentiments and noted that the harmonization encourages and allows agencies to depend on each other - a positive sign that the processes is working:

"There are some areas of difference, things that only the feds care about, probably some things that only the provincial cares about, but there is a whole lot of overlap, there is a whole lot of common ground...That harmonization allowed us to depend on each other for certain pieces of information...if you ever had to work your way through two independent documents that would just be a disaster."

Two other respondents also stated that EIA is enhanced by harmonizing the reviews, which helps existing legal strengths to be enhanced by respective positive legislative attributes:

“Higher standards that ensure information sharing will make the federal revisions happen a lot sooner. The provincial process always has the public consultations.”

This sentiment was echoed here:

“The harmonization does help in the scoping of these studies because things like CE can be scoped in, that is a federal requirement not a provincial requirement. Things like looking at alternatives and decommissioning, at least that gets written into the study...Actually Heritage Canada was quite involved in the Nordic center assessment. They were strong advocates for including First Nations concerns. So yes, having CEAA on board does help...but certainly the processes was richer by the fact the agencies were brought together, there is value in that.”

The Cypress Mountain EIA process was held up as an example of inter-agency co-operation. The BC EAA was not triggered by the development, though the BC parks EA process was. The CEAA and BC parks established an ad hoc harmonization process that, according to one respondent, worked well and avoided a slow deliberation that would have seemed inevitable if the two created if two EA processes were in parallel:

“There was no provincial EA process required there (Cypress Mountain), just the federal CEAA, but BC parks has an EA process, so we harmonized those two processes. In a way it was good that I had already worked on the Nordic venue and that process was harmonized so it was easier. And I was working with the same guy from the federal agency and we sort of helped VANOC and their consultants through how we could make the same process work for the parks part of it and (the) CEAA...We just talked about how so much of what they have to deal with in either process, so much of it is common material, it just did not make sense (to have two assessments), especially when we saw quantity of printed matter... If people are interested in what is going on and what we are doing, we didn't want people to be sifting through two different reports.”

5.2.2 How effective is the harmonization process in integrating federal-provincial reviews? What are some of the Challenges? How could the process be improved?

One NGO representative expressed uncertainty about harmonization and if it produced a better project. But even this respondent saw benefits in having one process which included all parties, where there were more agency people to interact

with and ultimately knowing that all expressed concerns would all be put into the context of a single assessment:

“I don’t know if the outcome was any better but it gave us more people to write letters to. There is a problem, our laws are strong enough but our enforcement officers do not have the power to enforce them.”

But another respondent believed that the larger number of agency personnel involved in a harmonized process only complicates issues. This respondent also believed that the two processes do not, in practice, work very harmoniously:

“They don’t (come into one), there are two (assessments). They run totally separate, you still have an RA under CEAA, you all get together under a single working group. The province calls it a TOR, CEAA calls it a scope. They have different terminology, that part of it is not harmonious, they are trying, but they have totally separated...Its not that they don’t work together, it is as good as it is going to get... I don’t think it was bad. They are different and I don’t think they are ever going to overcome that...Would the feds give up their seniority? I don’t think so. Would the province? They have their own mandates...”

This respondent provided an example of this perceived lack of harmony:

“A classic example is the Callaghan; the two of them could not hit the finish line together, so they split the project. The outstanding CEAA stuff that they could not complete is still underway...When the BC EAO refers to harmonization, they have teeth, they have a certificate...With CEAA they do not, you come out of the EA, you got your approval under CEAA, now go get your permits to start work. They have never not been granted, but we still had a whole whack of permitting to do after.”

This response questions the compatibility of the two Acts and alludes to a common challenge in Canadian EIA harmonization – the integrative potential of diverse EIA.

Another respondent also questioned whether the harmonization improved the EA process. This respondent hoped that public projects have less possibility for impact because government agencies have environmental concerns instilled in their operating procedures – a hope that was questioned earlier by another respondent.

“In a public project for the most part you hope you have people at the table who have the concerns of the environment baked right into their mandates...on a private project you have different drivers, there is more of a need for it (EIA).

I don’t know if the harmonization process brought anything special to the table, but it certainly would have been logistically difficult to do otherwise.”

A government respondent also noted the challenges inherent in timelines under a harmonized EIA process:

“There are many (challenges), I mean the provincial timelines versus the federal process don’t always line up... With every proponent there is strong pressure to get the assessment done in a timely manner. There is a great deal of effort put in just to meet the timelines.”

In another government interview, such sentiments were also expressed. This respondent also questioned whether harmonization did anything other than increase process efficiency, without necessarily resulting in a better project:

“Yeah I don’t think I would be comfortable to say better assessments... they are two different processes... And we are doing that as one, as opposed to having two separate processes which would make it burdensome... CEAA will come out with their EA as well, but based on that, it is more of a cover letter that will go with the EAO report. They just work together to make sure they are not doing two separate processes, two separate consultations, it would be ridiculous. In that way it would be better than two separate processes... The only challenge is to mill the two processes with the two timelines in place. Sometimes on the provincial side the timelines will not fit into the CEAA ones, which are rigid... The federal process doesn’t allow for a delay... But certainly both sides are committed to ensuring it gets done, and being flexible and compromising within that.”

Though some noted that the respective EIA Laws do not always work well in a harmonized context, one respondent was impressed with the role of harmonization in Olympic EIA much more than with others they had worked on. This respondent stated that the common conflicts between the EAO and CEAA were not as prevalent in the Olympic EIA process.

“Certainly the federal government feels compelled to write their own screening docs... we have experienced some divergence in the tact taken by CEAA and the province, so it is not as harmonious as we had hoped. But in the VANOC projects I have not detected much of a schism between CEAA and the EAO in the assessments conducted... Well again, both the provincial and federal government support the Olympics... I’m sure there was already a lot of instruction to being harmonious in their approach to things. I think it worked pretty well in terms of VANOC, better on this than on some of the other projects.”

Jurisdictional issues were also discussed by a project proponent – specifically with reference to timelines:

“(It is important to remember) that the province is running the process and the feds will agree to that as long as the legal requirements under the act are being met. They are not forgoing their responsibility or their authority...Again, the timing is a challenge and the subsequent permitting process is a challenge so you have to make sure that the project is scoped in properly. what is the scope of the review? What are you responsible for? That is an area we spent a lot of time narrowing the scope so it was appropriate.”

Even with timeline compatibility issues, all 2010 projects were all assessed and mutually acceptable agreements could be made to separate assessments into multiple parts so everyone would be content and all legislation would be properly followed. Another positive to emerge from the 2010 EIA processes was the ability for agencies to work together and form ad hoc agreements for required for the conducting of EAs.

As was already noted, the BC parks EA process was triggered for the Cypress Mountain upgrades. Those who were involved with this EIA were clear about the benefits of such an agreement and see the BC parks EA process as a valuable tool, one that could benefit other jurisdictions as an example of comprehensiveness in EIA.

“We learned to rely, and utilize the resources more effectively because there was so much overlap. There was the benefit of a more consolidated info source, both for the agencies and the pub, there is lots of info and it is a bit daunting, but not as much as if we had a provincial and federal set of documents...I think that sometimes the federal groups were on a different wavelength in terms of timelines...I think in some ways the BC parks process was more detailed on certain things. In the beginning, the CEAA felt that it was an advantage to them that the BC parks process be a part of his process because the BC parks process had a lot of additional info that was very useful...They found info that they would not have found by the CEAA process alone, or info that they would have not had to report on.”

But even here where the benefits of cooperation were noted, timelines are also noted as a pervasive issue. Another respondent mirrored such sentiments in terms of the BC parks EA process, saying it was the one that is most geared towards real environmental protection:

“I will tell you that the best EA process is the BC park EA process. That is the one that focuses on what the environment issues are. It is a two stage process and

I think it is really a good model but it does not have a timeframe associated with it. You have to add that because it can't be an open ended review process."

The level of understanding and cognitive knowledge of the region by those involved in the assessments, but not residing in the areas where the projects are taking place was further discussed as a problem. Requests for information, from some agencies, did not make sense to others, and it was an ongoing issue for project proponents, consultants and some government respondents. Local environmental conditions, social and cultural distinctions and politics will all have effects on a project. For best practices to be done, it is important that those involved in the assessment understand not just process, but also the location and geographic nuances of possible impacts to the system:

"The people who come to the table representing the provincial and federal governments, it is important for them to have an understanding of the land base that they are dealing with and maybe better knowledge in the area. every area is different from another one and you can't just book read this stuff off a report and make decisions. You really have to know what is going on up there, you have to know the politics of communities involved, you have to know the politics of the First Nations. If you understand all that, then everything sits in a much better context... I would say, if you are going to improve the process than the people who are involved on the regulatory side need to do some research independently to understand the land-base, the politics and everything to do with what they are dealing with."

Such comments point not only to concerns about general understanding, but also reflect a challenge posed by staffing changes in government agencies – as personnel change, there can be a change in knowledge of process, location, and process history.

"I would tell you that the level of understanding and the commonality of understanding out there is not as good as it could be in the agencies. There is a consistent turnover of staff and new people who are new to the projects and new to the issues and you run the risk of being drawn backwards as a result of it. So a larger process and a larger number of projects means more people and a longer timeframe."

One response seems fitting to end this section with - a response regarding the implementation experience of harmonization in the 2010 context[†]:

“One of the big issues for provincial authorities is jurisdiction. I think it is still an issue now and with so many things blame the constitution...it originates out of interpreting the constitution. That EA sometimes creates a situation where the province feels the federal departments have been empowered to start making comments or prescribing measures that are in areas of provincial jurisdiction... You will hear project splitting but under CEAA you can't project split, it has to make sense as a component. So the splitting that was done, not splitting, but separating out one component. And when we have more information on this component then we will assess it. That was acceptable to all the agencies at the table or it could not have happened as the federal government would say it couldn't happen, even if it satisfied all our needs.”

[†] The complete text of this discussion can be found in Appendix D and covers a wide variety of strengths and weaknesses of EIA along with discussing jurisdictional and timeline issues as well as positives from this process that can be applied in other jurisdictions.

5.3 Meeting International Expectations

The 2010 Winter Olympic are being touted as a ‘green games’; a pillar of sustainability, and an example of the new social-environmental conscience of Olympic development:

“VANOC has told the world that this is going to be a pretty green, environment sensitive games; the people I work with actually believe that... sustainability which is finance, social and economic, so it is not just all focused on one end or the other.”

Oddly this quote ignores the environment, an oversight perhaps by the respondent.

However, nearly all respondents agreed that VANOC has done a good job of minimizing the environmental impacts of their operations, and adhering to many best practices of construction, in part by adopting at a minimum LEED silver certification standards[†] for Olympic venue developments. The IOC requires not only reduced impacts on the environment and local culture but improvements to existing conditions – in other words there should be broad net benefits to hosting this global spectacle.

VANOC’s sustainability report defines sustainability differently from the CEEAA Act. As a respondent noted, VANOC states that “managing the impacts, and opportunities of economic, social, and environment legacies to produce lasting benefits both in our communities and globally” (Respondent 4). When asked about

[†] LEED is a certification program designed to reduce the impact of construction and accelerate the adoption of energy saving technologies in construction. This is a program that was created in an effort to drive more sustainable construction methods and for the completed project to have less of an ecological footprint during operation.

the “in a way that does not compromise future generations” a respondent replied: “it is not in *the* statement but....it is implied by lasting benefits” (Respondent 4).

While discussing the government’s relationship with VANOC, one respondent noted:

“Unequivocally good, we have, I think of all the best partners in the games VANOC is perhaps our best partnership. That is due to some very close relationships established during the bid phase.”

This partnership between the government and a quasi-private proponent is a sign of co-operation in the EIA process. As another respondent pointed out that there is no better stage to highlight co-operation and leadership than when the world is watching the Olympic stage:

“It is essential that they take a lead role in posing and planning and developing environment responsible venues and facilities. I think that there is no better opportunity than the Olympics to set that example.”

It appears clear that VANOC is accepting sustainability requirements as required ostensibly by IOC expectations, and seeks to meet such obligations reflected in Canadian EIA processes, though that reflection may be weak. But the net benefits and long term environmental and social impacts of the games will not be really known until the athletes and spectators have all gone home.

5.3.1 Are EIA ‘best practices’ being met?

The ‘best practices’ of Noble (2006) have been discussed earlier in this work and will now be assessed against actual EIA field-work from the Olympic developments.

It was noted that enhancing public participation and First Nations involvement were core objectives in the Olympic EIA processes. Consultation is an important

feature of EIA and the level of consultation in the Olympic EIA processes certainly meet the criteria for a transparency and participation.

Mitigation is another key element in EIA practice. One respondent contrasted mitigation efforts for two projects, one project being officially recognized as an Olympic project, while VANOC does not consider the other to be an Olympic project despite its Olympic connection:

“A green Olympics was always the promise, the press pushed this idea. The development required for the Olympics would be sustainable. We always thought the highway was a connection because it was required to get to the venues, it was in VANOC’s bid book and it should be treated just as strongly as the other developments. We even tried to set up camp in VANOC’s office downtown when they had a big meeting...It was obvious that they distanced themselves from the highway, they did not want anything to do with that. I think they recognized that it was an embarrassment the way it was being built. The Nordic center I read the EA for that, and on the summary page, it started off with a statement “wetland area which were recognize the CWS recommends a 200m setback for amphibian protection on wetland areas. We have come to agreement of 100m.” Here we have no set back – wetland, retaining wall - highway. The retaining wall is not even developed now; they have a rock slope which is running right into the wetland. When I talk to them about it the environment officers says don’t worry, we will pick the rocks out afterwards.”

This suggests that mitigation requirements are not being met. Post-project mitigation cannot restore habitat or population losses due to construction after the fact. Short-term health of the ecosystem is being put in jeopardy, while long-term resilience impacts seem unknown. The process requirements (having common approved requirements for all Olympic projects) are not being met. In this vein, cumulative and comprehensive issues are not being addressed; instead we see that it can be convenient to divest key projects from their Olympic context as being coincident developments.

Effective mitigation, monitoring, follow-up, and enforcement are all parts of best practices EIA to ensure credibility. Without all these elements any EIA will be

inherently weak, no matter what the certificate and approval documents may require.

An inherently weak EIA process does not fall under the guise of best practices.

One proponent believed that the EA processes that were undertaken for the Olympic developments are following best practices:

“Having to do the EAs really legitimizes our plans to get out there and build a project...Reduce our footprint, reduce old growth harvesting. Long term commitments to monitoring and wild-life that might not have been picked up because the games are a short term focus (were put in place). I think there are a number of examples out there where the games venues construction and post-games use has been positively affected by the EIA, I think that is a good thing... Accountability!”

Another respondent shared that the EA processes are having a positive effect on making the projects more environmentally benign, which is an important tenet in best practices:

“I think that the EA process has been effective in there being responses and adaptations that improve the environment appropriateness of what they are doing...”

However, the respondent continued by stating restrictions to more effective EAs lay in financial capacity and time pressures to have the venues complete:

“I think that partly because of time and financial pressures, they have fallen short on some things they could have done, that final assessment on how well they did...I think I need to see a few things play out.”

Accountability is an important feature of any development and while EIA does legitimize development as it is a legislatively required process, if there is no guidance on sustainability in the EA acts, then is it really meeting the goal of a sustainable games?

5.3.2 What requirements do IOC and VANOC have to ensure adequate consideration of environmental impacts?

The IOC asks that all host cities follow the core tenets of the Olympic movement and that all host cities attend to the environment with recognition of the 3rd pillar requirements. VANOC has their own environmental standards which account for the IOC's requirements. These standards are more precise than the general guidelines that the IOC requires and deal with venues on a project by project basis. As such, VANOC's role in the Olympic development and EIA process is much more involved than the IOC.

In one interview the respondent pointed out that:

"The IOC has been irrelevant in the process, we never see them."

Instead the respondent suggested that the environmental standards required by Whistler and VANOC were more influential. The respondent also opined that VANOC's commitment to sustainability is obvious (by reviewing the environmental standards they are meeting - LEED Silver), though the respondent also notes that Whistler has very progressive environmental requirements:

"we are not under the same banner as VANOC. Certainly we have daily contact with them and they have certainly espoused it as a green Olympics so it is important to them... Whistler is probably leaps and bounds ahead of most communities in Canada, or NA or worldwide. The planning thing won a UN award for its planning. It is right up there... Which are probably as stringent or as strong as VANOC's. We are not doing the same accreditation stuff as VANOC as they are trying to do LEED on all their buildings. We chose not to do that from an expense point of view. ... We don't feel we need the same things to hang our hat on."

While offering no indication as to the level of discussions with the IOC, one respondent noted that the group he represents, and the other groups responsible for the Olympic developments, all share the same core value of *sustainability*. Beyond stating a macro-level goal, the IOC it seems, provides little actual guidance for achieving the third pillar. In this respect both EIA and LEED standards are perhaps most influential in an applied sense.

“...the IOC is interested in sustainability. That agenda was adopted by VANOC and that also happens to be the agenda of the City of Vancouver so we all sort of marched in the same direction...these buildings are to be built at a LEED gold standard. That is a city requirement, not a VANOC requirement. The VANOC requirement is the silver medal in building. Draw your own conclusions to the commitment to the LEED program at any rate.”

While one respondent listed costs as a limit to committing to LEED standards, it is clear that this respondent also thinks the local regulations and planning processes are more than adequate to ensure environmental protection. Another respondent, on the other hand obviously believes that the LEED silver certification is inferior to the LEED gold certification sought by the City. The differences in the levels of LEED certification deal with energy efficiency standards, building material selection, and construction waste diversion among others. These categories are based on a scoring system, and the level of certification a project receives is based on the point total. It would be helpful if the IOC would standardize their requirements to ensure that no Olympic development is attributing to unsustainable development.

One proponent saw the IOC as a manager ensuring their workers (organizing committees) adequately assess potential environmental impacts within the framework they are given. This respondent saw VANOC's role as a force for change and believes that unsustainable and environmentally damaging developments relating to specific venue requirements, brought about by international sport federations, should be changed:

“IOC perspective, I would see their role as ensuring the host cities are doing adequate impact assessments and implement everything they commit to implementing... Part of the bid application process in a bid to host the games, you need to demonstrate your environment protection stewardship... Part of the bid application process in a bid to host the games, you need to demonstrate your environment protection stewardship...we have really done an excellent job in demonstrating best practices around the EIA process... So I think what we are hoping in a way is to influence the IOC to demand more of venues...So for environment reason they took it from our perspective. We can broaden the perspectives of the sport federations and the IOC, to yes we can get the sport, make

an awesome venue and accomplish all the things we need for the games while demonstrating best practices.”

Another said it is VANOC’s responsibility to produce a green games - they are the proponent. But again, the IOC emerges as a distant partner not much engaged in practical dynamics such as EIA.

“I have had no dealing with the IOC, VANOC is the project proponent, they prepare the contracts, the bid documents, for people to do the work, and they hire the monitors. Their name is on the EA certificates, so they are the ones responsible for the performance of their facilities. Whether they live up to their commitments is totally on their shoulders. They are 100% responsible for how things turn out.

Well I think VANOC ought to be congratulated for opting in. they opted into a process that has a lot of flaws. Just because they opted in does not mean the flaws went away.”

One other perspective holds that the Olympics cannot be sustainable and that VANOC’s sustainability framework is ‘self-invented.’ But even this respondent praised VANOC for their work in most of the 2010 developments, but that one development seems noticeably contentious:

“(make sure this project) does not only have no negative impact on the environment, but actually to improve on the environment and leave a green legacy...VANOC has said that we are going to do these games under some self invented sustainability principles but the Olympic games by their very nature are not sustainable and could never be, I acknowledge that...In something like they did in the Nordic center, old brownfield development and they did some very good things. The legacy trails are exactly the opposite and unfortunately you will lay to waste any good news that VANOC can say about the Whistler Nordic center...”

This respondent also questioned VANOC’s environmental commitments by noting that VANOC had shut down a collaborative process that would have ensured follow-up and monitoring in the long term:

“When you are proposing this as a green legacy, just this one, that they would not have to lift a finger for, then they shut us down and said you can’t use the Olympic name, can’t use legacy or any of that so cease and desist, so we did and carried on with the good people in this region, and the First Nations and the local government and industry, logging, mining, we will achieve this legacy, but that is despite VANOC..., maybe they have something up their sleeve but I have not seen it.... They were there to produce an Olympic games, and then they vanish of the face of the planet... But they are not addressing the IOC’s agenda.”

In an effort to meet the IOC's environmental standards, imprecise as they may be, one consultant suggested that VANOC will be scrutinized for years to come:

"The one thing on the positive side of the CEAA process being applied to all these things is that this will be a heavily scrutinized Olympics. They are calling it the green Olympics, the back checking, the documentation; the cataloguing of the environment sensitivity of VANOC will be scrutinized for year to come."

A government respondent mirrored this positive idea and was impressed by VANOC's 'paper trail' that will help legacy societies manage sites post-2010:

"VANOC (commitment is) obviously huge, they are the ones committing to do the work according to the assessments. From what I have seen they are extremely organized in terms of their documentations ... Dotting their eyes and crossing their T's type of stuff. They have their commitments and their promises ... It can then be handed off to whoever is responsible for these sites afterwards."

But the question arises as to who will be scrutinized and assessed for environmental and social performance in post-Olympic follow-up if VANOC is no longer in existence? Who will be accountable for the follow-up and sustainability requirements that the international community is expecting?

5.3.3 What are the IOC guidelines for participant cities to follow, with respect to the 3rd pillar, and what are the consequences for non-compliance?

Only VANOC respondents were able to comment on the IOC's powers in terms of non-compliance with 3rd pillar objectives. The answers received are presented below:

"Well I am certain there are repercussions, whether or not they are defined in terms of penalties, I don't know, I would tell you that everybody's interest is to develop the venues properly whether that is from a sport perspective, a lay perspective, or an environment perspective... I'm not sure to what the extent the IOC's reach is.

Part of their (IOC) interest in being involved was to talk to Vancouver about some of the commitments to sustainability and environment management that we were undertaking as it has become an increasing focus on the games."

A second respondent outlined VANOC's commitment to sustainability, a commitment that some see permeating through the entire organization and has become an integral part of the VANOC mission:

"At the highest level VANOC vision mission, and the highest policy statement embrace sustainability as a whole, and VANOC defines sustainability as social, economic, and environment impacts and opportunities... We have a buy smart procurement program that incorporates environment protection and stewardship. It starts at the top and works its way through... But VANOC is trying to extend it beyond that from everything from the EA process to green office practices to just trying to educate people to what is going on... part of what we have done at VANOC to ensure that every team, every department that we have embraces sustainability and thinks about what their impacts and opportunities are in respect to social, economic, and environment impacts... aboriginal participation is a huge part of our sustainability program as well... and huge opportunities to educate..."

The respondent continued by outlining how the IOC helps guide and educate the host cities with their sustainability goals and relates how it is an ongoing, adaptive learning process that shares information from past games to current and future host cities:

"One of the first ways (for adherence to 3rd pillar requirements) is through the IOC co-ordination commission they have people appointed to IOC co-com (as we have referred to it) and they meet with VANOC quarterly... we spend a couple of days with IOC co-com and we report to them from any topic they need to hear about from venue development, to finance, to sustainability so we basically report out to them on how we are doing... I think the sustainability report and additional voluntary things on behalf of VANOC that we use to instill their confidence that we are going to meet our commitments and hopefully go beyond. Other initiatives, there is an Olympics Games impact reporting project and basically an indicator project that is trying to map out, games by games by games, the impacts on those communities. With a sustainability based platform of indicators around socio-economic and environment, and so, Vancouver is the first host city, Beijing is the first to sign on to be part of project... I'm sure there are some serious legal stuff around having out EA approvals in place, but we do report back to them.

There is a forum set up for host cities to transfer knowledge from one games to the next and so we have been involved in a gazillion sessions from everything from ticketing, marketing, overlay, to things like environment, we have worked with people from the Lillehammer games, Sydney games... a big brainstorming session on what they did, what they could have done differently and how it applies to our context... one gentleman named Olaf Nerhols, who was at that point the IOC environment advisor and he originated from the Lillehammer games. He basically spent a couple days with us along with another IOC representative who runs their environment sustainable development program. That was our initiation to the world of Olympic Games and environment management and what tracks were taken by others and what tracks were available to us and what the goals we want to pursue, obviously the first steps are very broad everyone is just learning."

Whether there are any repercussions from the IOC for building in an ‘unsustainable’ manner is unknown, but with little follow-up or monitoring and only self-reporting on VANOC’s sustainability performance, it would be tough for the IOC to determine if the Olympic related construction projects were contributing to an environment of unsustainable development. And of course – non compliance after the fact will not derail an Olympics.

For the most part, EIA respondents seem pleased with VANOC’s performance in reducing environmental impacts, though many also believe that through a higher commitment to environmental certifications more could have been done on each project. Individual projects could have been improved with the developments of community based monitoring programs which would ensure compliance with EIA certificate requirements, at little cost.

The IOC’s limited capacity, or maybe will, to enforce its third pillar requirements raises questions about their ability to ensure the commitment to sustainability is followed by host cities. After an Olympics has been awarded it may be that the IOC loses a good portion of its power to determine the physical aspects of Olympic development – it becomes a toothless tiger, with an aura of sustainability, but no way to enforce its rules. Short of punishing non-compliance of third pillar requirements by cancelling the hosting agreement (which will not be done due to the huge financial repercussions of doing so) there is not much more the IOC can do. There could be more screening of the host cities on past environmental performance before the Olympics are awarded, but this will not ensure that the Olympic developments will occur in a sustainable manner, or that other developments will not

be shielded by the Olympic development momentum. It seems that the IOC is forced to trust the governments that have been awarded the Olympics when they commit to environmental, social, and cultural enhancements and sustainability. VANOC's sustainability pledges and program performance will have to serve as the measuring stick in the absence of monitoring programs or follow-up regimes.

6 Policy Implications and Recommendations

Using trends identified in the responses (Appendix C) from this study's participants as a guide to understand what topics the respondents felt were important, and through a comparison of these issues with the established best practices and past literature in EIA, an image of improvements in the EIA systems has been created and several policy implications and recommendations have been identified. These recommendations are meant as a guide to improve EIA based on the issues identified by the respondents.

6.1.1 *The pervasive need for better resources.*

Federal and provincial agencies responsible for the EIA process are limited by financial resources and limited personnel. There is not enough staff to enforce mitigation requirements, handle on-going monitoring programs, or implement follow-up procedures. It is unlikely that best practices can be met without better fiscal support for EIA agencies. Financial support for public and First Nations participation also needs to be increased so these key participant groups can afford to hire their own experts who could best represent their interests and help explain some of the more complex technical issues.

6.1.2 *Self-regulation or government monitoring?*

The current system of self-regulation and monitoring may not meet the requirements of EIA laws. If the environmental monitor (consultant) on a project is being paid by the project proponent, and it is known that there is no capacity for

enforcement of the requirements outlined for mitigation in the EA certificate, situations, such as the one discussed earlier where a contractor was fired for requesting a stop-work order will continue to occur. It is possible that the monitor will ignore issues, or the monitor will report the issues to the government agencies and the project may complete before there is any action taken. If the monitor does make a report to the government regarding the identified issues, as was reported by a respondent, then the monitor risks being fired, or not hired in the future.

6.1.3 The need for follow-up.

Only 1 in 100 projects assessed under the CEA Act ever require follow-up. Only 1 of the 13 Olympic related developments required follow-up; a better average than the national but still lacking in best practice adherence. Without follow-up there is no way to validate predicted impacts and no way of improving predictive techniques. Without adequate follow-up, the process of impact cannot contribute to a better level of comprehensive system knowledge. Predictive techniques may not advance and will continue to treat each potential impact in isolation, instead of cumulatively. In this study resource capacity issues were discussed as the reason for the lack of follow-up.

6.1.4 Better accessibility for First Nations and Public.

Another recurrent suggestion, which would also require more resources, is to have the information presented in an EIA carefully summarized. When restricted by dynamics such as timelines, technical understanding, logistics, or finances, participant groups

such as First Nations communities or concerned citizens have difficulty fully participating in the EIA process. Such summary documents could support participants in the EIA process who may lack the capacity to synthesize lengthy and technical EIA reports. Better information access makes EIA more open and accessible and allows for enhanced collaboration and public input.

6.1.5 Address contradictions found within documents.

Respondents noted that contradictions are often found in EIA reports and these contradictions are not adequately addressed. Also noted was that agreements in principle were made between EIA participant groups which allowed the process to continue without addressing the underlying issues. While agreements in principle are a sign of goodwill and trust, without a full understanding of the project, or what the potential impacts could be, we are left with the question of how can groups make promises to each other that may be impossible to uphold? Also if there are contradictions found in the report, they really need to be straightened out before the project proceeds. If different experts provide different conclusions about the same things, or contradictory conclusions about possible impacts, then the potential impact is not known and the project should not be certified until a greater understanding can be . To meet the requirements of EA, contradictions must be worked out, regardless of cost so true understanding can be established and the full range of actual potential impact will be known.

6.1.6 Account for cumulative effects.

Cumulative effects are not adequately dealt with in most Canadian EIA processes. The scope that is applied to cumulative effects is too narrow, both spatially and temporally. It will require more resources to broaden the scope to include more area over a longer amount of time, but sustainability is not about 5 years into the future and site specific impacts; sustainability includes longer temporal timeframes and larger spatial settings. Cumulative effects must be assessed beyond the project site. Temporally, the effects have to be assessed well into the future to ensure that the project will not open the door to unsustainable development.

6.1.7 Address cultural and economic effects.

EIA reports for 2010 projects include very few studies directed at cultural, social and economic impacts. For EA best practices to be met, a more comprehensive understanding of the sub-systems within the project's area of impact must be attained. For example, the Olympics is one driver in the housing boom currently underway in Vancouver, and real estate prices are rising rapidly. Increased land values are driving developers to purchase property in the downtown east side of Vancouver, an area of poverty and poor social indices. Developers are buying low cost apartment and hotel complexes, evicting everybody and replacing the buildings with luxury high rise condominiums (Hamilton, & Schmidt, 2007). This has already led to an increase in homelessness which is being responded to by the Vancouver Police department and the city of Vancouver with new laws which, by the time the Olympics start, will criminalize those without shelter and lead to their arrest (a 'no sit, no lie' law). More arrests leads to more tax dollars being spent on enforcement (Hamilton, & Schmidt,

2007). But it can be acknowledged that a casual link between the 2010 Winter Olympics and such sad events is not yet conclusive.

With the narrow scope of cumulative assessments and the inadequate inclusion of social and economic impacts, many things are overlooked. To include such impacts would cost more and require more time, but to assess the impacts a project, or series of projects may have on the environment without including significant portions of it, is to inadequately assess. Human beings are not isolated from the environment, we interact with it and our economic paradigms dictate the threshold for 'significant impacts' that we are willing to accept.

There are still groups opposed to the 2010 Olympics but there is no mention of them in the EA documents. The Anti-Poverty Committee and the Downtown Eastside Residents association are two such groups and they want VANOC to be accountable to their promises or no loss of low income housing. These groups protest at any media events related to the Olympics chanting slogans of 'Homes not Games.' Also of interest is the 'No Games on Stolen Land' campaign by a group hosting a web site called No2010. This web site provides updates of resistance to the 2010 Olympic machine and background information on why the campaign exists. The web site hosts the following message with a plea for solidarity and a convergence against the Olympics:

"Calling on all native warriors, anarchists, anti-capitalists, anti-poverty activists, environmentalists, and concerned individuals, to converge against the 2010 Winter Olympic Games.

In February 2010 the Winter Olympic Games and its supporters will be converging on Vancouver, Whistler, and surrounding unceded native land in Coast Salish Territories.

Let them know that it will not be business as usual and that where ever the neo-colonial beast spreads its parasitic tentacles that the people will rise to sever them.

Converge against the Olympics and let our voices be heard!

No Olympics on Stolen Native Land!
No Social Cleansing!
No Environmental Destruction!” (No2010, 2008)

From these resistance groups it seems obvious that the social, economic and cultural impacts of hosting the Olympics has not been fully recognized or comprehensively studied.

6.1.8 Allow agencies to more latitude to share information.

During the interviews there was much discussion on the participation of government agencies in the EA process. It was suggested that some people were moved off of projects, or to other departments, for questioning the adequacy of the EIA process and Olympic developments. To meet third pillar requirements of the IOC, and indeed broader international expectations, it would seem that 2010 projects should be even more heavily scrutinized. There should be efforts to prove to those who question the EA’s conclusions that the projects will in fact have no significant adverse effects on the environment. There is a danger that critical thought will disappear, replaced out with complacency to the ruling government’s policy directions.

6.1.9 Better Baseline Information.

A common concern coming from all respondent sectors was that government agencies are coming to the deliberation table without a firm grasp on the local environmental, cultural and social systems. This may be linked to the restricted capacity to send personnel to the field ahead of time, but the representatives from government agencies who are working on an EIA must understand the local cultural,

political, economic, and physical environments before participating. An increase in resources within the agencies would allow *a priori* investigations of the local environment and establish relationships with the community. This may lower the costs of EIAs as fewer, ultimately unnecessary, studies will be ordered. If government agencies have more capacity, they will be able to participate more effectively right from the beginning of the EIA process, instead of acting as an agent of delay in the process while they learn about the local environment.

6.1.10 How can we define significance?

How we define a significant impact is largely a social decision. There is often no easy template to identify a threshold point where an impact becomes significant. If cumulative assessments continue to be undertaken with such a narrow scope where impacts are still treated in isolation of each other, ‘significant’ impacts will never be identified. The fear of ‘significant’ impacts that was suggested by one respondent must be overcome, for truthful cumulative and strategic assessments cannot exist if that fear is present. At some point, spatially or temporally, the effects of development will cross the tipping point and a significant adverse environmental impact will occur.

It is not an effective use of time and resources to undertake EIA if efforts to avoid significant impacts only center around scoping the assessment to a small enough scale that will ensure significant impacts will be avoided; it may meet the letter of the law, but it does not match the intent. The goal of EIA is to avoid significant adverse environmental impacts and to mitigate impacts that are unavoidable. If the scoping of a project is undertaken to avoid the possibility of discovering potentially significant

impacts, then surely best practices are not being followed and environmental protection is being overlooked for the purposes of a quick turn-around time and development.

6.1.11 Impact Assessment may have little effect on 2010 planning.

Most respondents agreed that EIA was beneficial in reducing environmental impacts of the Olympic developments. However, many questioned the practical impacts of EIA in fostering environmental protection, noting that many of the Olympic developments were very small in scale and could not realistically cause any significant adverse effects, were redevelopments which would lead to improving the environment, or that the EIA process did not reduce impacts that would not have been reduced through development certification systems. When compared to other sectors that are exempt from EIA processes, it may be clear why some respondents question why small 2010 scale projects have to be assessed. For best practices to be done, the BC EAA has to, in the very least, have sustainability included somewhere in the wording, and the CEAAct needs to have more than token mention of the paradigm.

Scoping an environmental assessment to a minute area scale, while continuing to treat potential impacts in isolation, will ensure that significant adverse environmental effects will never be discovered and that best practices and environmental protection will not be accomplished. The weaknesses discussed in cumulative effects and strategic assessments are two of the leading issues regarding the effectiveness of CEAAct and the BC EAA. The CEAAct and BC EAA should be re-written with ideals of sustainability and environmental protection engrained in every step of the

process. Environmental Impact Assessment legislation needs to be more than bureaucratic check mark; it needs to be a tool used to protect the environment from unsustainable development through an adaptive, collaborative, comprehensive, credible, and transparent process.

7 Conclusions

Respondents in this study have helped illustrate the current state of Canadian, and B.C. EIA. They discussed a broad range of topics including harmonization, follow-up, monitoring, enforcement, participation, and environmental protection among others. Utilizing past literature dealing with EIA and the interview responses, a number of policy recommendations have been made with ideas on how to strengthen EIA in Canada and British Columbia, especially when dealing with multi-site projects and spectacle events.

There have already been problems with the harmonized environmental assessment process; for example the Whistler Nordic Centre EIA has been split into two parts because the BC EAO wished to postpone part of the assessment, which was acceptable according to the EAA. The CEAA Act, however, does not allow for such amendments, needing instead to issue a separate certificate, and therefore the EAO split the assessment into two distinct EIAs (CEAA, 2005b). This process was done without a problem though the overlap that was supposed to be eliminated is now occurring as two EIAs must be carried out on a project where only one EIA could have been conducted.

For many respondents it made sense to split off the recreational trails as they are not an Olympic venue; the Nordic center has to be completed for the Olympics, the recreational trails do not. Whether the recreational trails will be assessed with cumulative effects from the main Nordic center remain to be seen. By splitting the EIA for the Nordic center, the impacts of the individual projects will be reduced. With the weaknesses already described in dealing with assessing cumulative impacts,

it is possible that the recreational trails were split off to avoid a 'significant adverse environmental impacts' decision. When assessed separately, and without cumulative impacts being seriously considered, each project would appear insignificant on their own (Dale, 2008).

Cumulative effects over a larger spatial area and a longer temporal timeframe would substantially increase the effectiveness of Canadian EIA. EIA in Canada inadequately assesses the social impacts and larger land use developments. Assessing these in a cumulative manner – that is addressing the issues that are not specific to the development but are directly related to the development through long term consideration – must be undertaken. The fact that in the Sea-to-Sky highway improvements EIA, the cumulative impacts of opening access to previously inaccessible lands, which are owned by a land developer, were not assessed are a testament to this weakness. With road access the developer will be able to start the land clearing and development process, and this should have been considered in the initial EIA for the road construction. The negative social impacts being driven by the gentrification of the downtown east side of Vancouver in the lead-up to the Olympics were not considered in the larger strategic assessment undertaken for the Olympics and were not considered in any of the individual EIA processes. These are just two examples of the inadequate consideration of cumulative and strategic impacts though more instances of this do exist. Treating the 2010 Olympics developments (and the shielded projects which have come about in large part because of the Olympics) as a series of unrelated and isolated developments instead of an integrated and interrelated system whole is a severe weakness attributable to existing EIA practices in Canada.

By not adequately addressing cumulative impacts in the 2010 Olympic context, a great potential for understanding and developing best practices in EIA has been lost.

Strategic long-term planning and impact assessment will help to ensure sustainability through a more comprehensive understanding of larger complex systems. A threshold of negative impacts must exist which, if crossed will lead to catastrophic system failure and reorganization. By assessing cumulative effects and through strategic planning, the creative destruction of reorganization can be avoided and the systems current uses will sustain. For a more detailed review of the Callaghan Valley Nordic Center, a preliminary review was undertaken using complex systems lenses of panarchy and catastrophe (Kellar, 2007).

The complexity of harmonizing two legislative processes into one EIA will be an ongoing challenge for the CEAA and the provinces. Conflicts are bound to arise as the legislations do not perfectly mesh with each other, and uncertainties may still exist where the harmonized EIA fails to address potential impacts or does not involve the public to their liking. From the original EARP process in the 1970's to the current EIA legislations there have been recurring problems with lack of public participation and inadequate monitoring and follow-up programs. Recent changes to the EAA in B.C. have granted greater discretionary powers to the EAO which could further limit public participation; though the majority of respondents in this study believed that public participation was adequate in the Olympic developments. Changes to the CEAA have also had negative effects to public participation.

The fact that only one project related to the Olympics requires follow-up and that none have gone beyond the screening stage leaves this author wondering about

the true effectiveness of the legislations. The fact that the screening stage was the highest level of assessment any of the projects reached is in-line with Herring (2005) who notes that only 1% of projects have the full EIA process imposed upon them; perhaps if there were 80 more Olympic developments, then at least one would have been fully assessed. Is EIA in Canada geared towards protecting the environment from potentially damaging, ultimately unsustainable development, or is it just a bureaucratic hurdle for developers to overcome before they break ground?

Improving public involvement, allowing for stronger enforcement practices, implementation of monitoring programs, improving predictive techniques through follow-up procedures, and more of a focus on sustainability within the Acts have all been suggested to help improve the effectiveness of the Acts. These themes have been present temporally and spatially yet are still issues of weakness, and recent amendments to the BC EAA and the Canadian EAA have weakened these areas even more. If a potential impact is not monitored, how will the technique ever improve, how will compliance be proved, how will the effectiveness of the Acts be gauged and studied? These are pervasive questions that cross EIA jurisdictions.

The federal and B.C. EIA process is proponent driven. The group undertaking the project must conduct the assessment. Bias seems unavoidable in this situation as the EIA contractors are being paid to make sure the project will be approved; they would not be in business if they continually found too many negative environmental impacts in proposed projects or listed 'significant impacts' in the EA report; that would trigger a more comprehensive and expensive process. The same applies to monitors, if the monitor is being paid by the proponent, they will be more likely to

ignore environmental issues, and it has been shown that a contractor was pulled off of a project for demanding environmental protection requirements compliance.

Certainly pressures exist, some respondents were clear about this. In regard to the Olympics, there is an understandable desire to complete all projects on time to avoid international disgrace associated with incomplete venues, such as plagued in Athens. This all requires a quick turn-around time in the EIA process. To meet timelines does not, however, mean that process and quality of EIA have to be sacrificed. Indeed, 2010 provided an opportunity to develop state of the art EIA, but it seems to have been missed.

A healthy environment with responsible development is, after all, the overall goal of the EIA process and all projects subjected to the reviews need to be adequately assessed. Can a comprehensive understanding of the system be established and can a project be adequately assessed if time pressures are influencing the project? Respondents were split as to whether or not the EA process produced better projects and only slightly more than half of the respondents believed the projects were assessed to the 'letter of the law'.

In comparison to other mega events, there is nothing that matches the scale of development that occurs due to hosting the Olympics. World fairs and expositions do result in some developments, but certainly not the scale that has occurred because of the Olympics. For world cup hockey, rugby and football, most facilities already exist and for spectacle concerts or visits (Rolling Stones or the Pope for example), major new developments rarely occur. The only half-way comparable mega-event would be other international multi-sport competitions such as the Pan-American Games or the

Commonwealth Games, but even these events pale in comparison to the concentrated and large-scale development that the Olympics bring. The 2010 Olympics have served to highlight some of the weaknesses found in the Federal and B.C. EIA processes. Improving on the weaknesses of Canadian EIA in dealing with cumulative impacts and sustainability will lead to better practices when dealing with multi-site developments and larger regional planning goals. Enhancing the capacity of the government EIA agencies will allow for an overall strengthening of the processes.

Despite the environmental ideals of the Olympics, there is little evidence that EIA has been an effective or influential as it could have been in 2010 planning and development. In no small part does this reflect the inherent structures and weaknesses of the BC and Canadian federal EIA systems.

While not all Olympic venues certainly need full scale EIA attention, there is a sense that the opportunity for greater consideration of complex environmental impacts has been lost to the urgencies of time and national pride.

8 Future Research

Direct First Nations input was unsuccessfully sought while conducting this research and future work could benefit from the additional viewpoint of the First Nations. Input from the IOC would also have been of potential value to respond to questions that VANOC was not able to and future research may benefit from such input. Follow-up to this research is possible in the future, after the Olympics have taken place when all construction is complete, VANOC will have been dissolved and the legacy societies have taken over the responsibility for the operation of the venues.

Follow-up will serve as a review of the EA process and would have to look at the actual impacts from the projects and compare them with that which was predicted; this will, in effect be the follow-up which was required in only one of the EA certificates. If evaluative research is undertaken, the results would help illustrate the state of Canadian EIA, especially when dealing with multi-site developments and spectacle mega-events. Examining the legacy of the 2010 Winter Olympics in light of the role of EIA will also contribute to our understanding of Olympic impacts and the efficacy of EIA in such high pressure settings.

Additionally an interesting study could focus on the question of if the Olympics are being used as a shield for other developments. This question arises as policy direction from the provincial government seeks to double tourism by 2015 through development; and as capacity in government agencies, consultants, and the public are being strained by focusing their attention to Olympic developments - non-Olympic developments that are progressing with the Olympic momentum may not be as heavily scrutinized as a result. The long-term impacts on sustainability of such a

development frenzy may not be empirically established for some time but such information would serve as interesting data for the study of the neo-liberalization which is seemingly surrounding the current incarnation of the Olympic machine.

9 Appendix A – Survey Form

9.1 Interview Questions and Introduction

My name is Dan Kellar; I am a graduate student in environmental science at Wilfrid Laurier University (Waterloo, Ontario). I appreciate your time, as I indicated this is part of a project that looks at the practice of Environmental Impacts Assessment.

This study considers the application of Canada's and British Columbia's EIA processes to 2010 Winter Olympic developments. With the number of developments taking place in a short time period, to support the 2010 Games, there is a good opportunity to look at best practices in EIA, and the application of legislated requirements in such a setting. We view EIA as a development as a tool which aims to mitigate potential negative environmental impacts, while creating better projects. This work will help create knowledge that may be used to enhance federal-provincial EIA coordination, and aid EIA application to similar events in Canada or other nations.

Wilfrid Laurier University has strict ethics guidelines and this study has been designed according to those rules. Please take a moment to review and sign the "Informed Consent Statement" (attached) and feel free to discuss any concerns you may have with participating in this study.

The following are interview question themes which will be addressed as open-ended and conversational.

9.1.1 Interview Question Themes:

Application of EIA to the Olympics:

1. Can you tell me how EIA has been applied so far to Olympic development projects?
 - a. In your experience, has EIA been an effective tool for reducing/mitigating environmental impacts for the 2010 Olympics?
 - b. Can you think of an instance (or instances) where a 2010 project alternatives been sought or adopted?
 - c. Who seems to have the most influence in the EIA process?
 - d. Have all projects been properly assessed?
2. How has public participation affected the EIA process?
 - a. Have public participation levels met your expectations?
 - b. How could public participation be improved in EIA?

- c. Can you think of examples where the public's concerns have been brought forward and have affected change or mitigation measures for a 2010 project?
 - i. If so, would these changes or mitigation measures have occurred if not for public concern?
3. Given the need for federal and provincial EIA, do you think harmonization of the EIA process produced better assessments?
 - a. Have there been challenges due to harmonization?
 - b. Does the 2010 process show specific positives for harmonization?
 - i. If so, could this process benefit other jurisdictions (and how)?
 - c. Based on the 2010 experience, what could be done to improve on the harmonization process?
4. Are there pressures to fast-track the EIA process for the Olympic developments?
 - a. Where have such pressures come from?
 - b. Have project alternatives been well studied?
 - c. How are such pressures dealt with?
5. From your perspective, what are the roles of IOC and VANOC in environmental protection in relation to Olympic developments, specifically with respect to EIA?
 - a. How does the VANOC oversee Olympic 3rd pillar requirements regarding the environment?
 - b. How does the IOC ensure host city adherence to 3rd pillar requirements regarding the environment?
 - c. Have penalties been agreed to for non-compliance of 3rd pillar requirements?
 - d. What help/advice does the IOC offer to host cities to meet 3rd pillar requirements?
6. What has been the role of First Nations in Olympic development?
 - a. Have their concerns been addressed?
 - b. Have they participated in the process?
 - c. How could EIA be improved for First Nations
 - d. How has Olympic development affected First Nations
7. What role do you think follow-up has in EIA of Olympic projects?
 - a. In your opinion, are follow-up measures sufficiently implemented to Olympic developments to allow for validation of impact predictions or predictive techniques?
 - b. Are there restraints to implementing follow-up procedures?
8. Do you have any other comments to add, information or insight that would help understand the EIA role in 2010 development?

Do you have any questions for me?

WILFRID LAURIER UNIVERSITY
INFORMED CONSENT STATEMENT/INFORMATION LETTER

**9.2 *Application of Environmental Impact Assessment to the
2010 Winter Olympic Games developments.***

Lead Investigator: Dan Kellar
Advisor: Dr. Kevin Hanna

You are invited to participate in a research study examining the role of environmental impact assessment in the 2010 Winter Olympic Games developments. The purpose of this study is to gain an understanding to the application of the Federal and Provincial EIA legislations to the development projects associated with the 2010 Games and will create knowledge that may be used to enhance federal-provincial EIA coordination and enhance EIA processes relating to spectacle events in Canada.

Dan Kellar is a Masters Candidate in Environmental Science at WLU
Dr. Kevin Hanna is an Associate Professor in Geography and Environmental Studies at WLU

INFORMATION

Open-ended, conversational style interviews will be undertaken with each interview approximately one hour in duration.

Participants in the interview process have all been affiliated with the 2010 Olympic development EIA process and depending on response rate, between 10-20 one on one interviews will be undertaken.

All interviews will be recorded onto digital media for the purpose of transcribing at a later date.

RISKS

There are no foreseeable risks associated with participating in this research.

BENEFITS

This research will create knowledge that may be used to enhance federal-provincial EIA coordination and enhance EIA processes relating to spectacle events in Canada.

CONFIDENTIALITY

Participants will not be known to each other and will be named only with their consent. All attempts will be made to avoid any identifiable information during the publication of the data. Quotes and information will not be phrased or attributed by name. This research will interview a small set of participants. While we make all

reasonable attempts to insure confidentiality, comments might be assumed by readers to originate from a specific respondent. To increase confidence in the management of data and in the rare event that the researchers should wish to use a direct quotation that might be reasonably assumed to be made by you, then the quote will be shown to you and your permission to use it obtained in advance of publication. Transcription of all data will be performed solely by Dan Kellar. Professor K.S. Hanna and Mr. Dan Kellar will be the only people with access to these documents and can ensure confidentiality as the documents will be kept under an encrypted file type which only K.S. Hanna and D. Kellar will have the encryption key for. Any copies will have the same encryption and be kept in a locked University office. Any destroyed paper files will be shredded and all electronic data will be shredded.

CONTACT

If you have questions at any time about the study or the procedures, (or you experience adverse effects as a result of participating in this study) you may contact the researcher, Dan Kellar, at Department of Geography and Environmental Studies, Wilfrid Laurier University, Waterloo, Canada, N2L 3C5, T 1-519-616-4462. This project has been reviewed and approved by the University Research Ethics Board at Wilfrid Laurier University. If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Bill Marr, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-0710, extension 2468.

PARTICIPATION

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study before data collection is completed your data will be returned to you or destroyed. You have the right to omit any question(s)/procedure(s) you choose. Any attributed quotations used will be shown to you before being published.

FEEDBACK AND PUBLICATION

This research will be completed in late spring of 2008 and any requests for information regarding this research can be made at that time by contacting me by phone or, preferably, by email (kell1230@wlu.ca). This research will be published as a thesis paper and potentially as smaller and more focused journal articles or book chapters. If you wish to pre arrange receipt of any resulting publications, please provide a business card or address information to Mr. Kellar at the interview time, material will be mailed when available.

CONSENT

Do you wish to have your name and/or organization published in the report? Yes_____

No_____

I have read and understand the above information. I have received a copy of this form. I agree to participate in this study.

Participant's signature_____ Date

Participant's name (Printed Clearly
Please)_____

Investigator's signature_____ Date _____

10 Appendix B – Venue Descriptions

1. Hillcrest/Nat Bailey Stadium Park

Vancouver 2010 Hillcrest Venue (Legacy Community Centre & Percy Normal Aquatic Centre) - http://www.ceaa.gc.ca/050/Viewer_e.cfm?CEAR_ID=20264

- Federal (CEAA) environmental assessment review process
- Smart site selection – new facilities to replace aging existing community complex and new complex sited primarily on former gravel parking area Targeting LEED Gold certification
- Use of waste heat from the refrigeration plant to heat other building spaces and adjacent aquatics centre

Location:

49 Degrees 14 minutes 42.08 seconds N

123 degrees 06 minutes 39.51 seconds W

Venue Description

Hillcrest/Nat Bailey Stadium Park is located in a lively Vancouver community that includes the beautiful Queen Elizabeth Park and views of the North Shore mountains. This park is well served by public transportation.

Construction Update

The environmental assessment has been completed and the Olympic Mode design is nearing final completion. A construction manager has been retained for the project. Parking lot construction, site utility installations and bulk excavation are underway. Completion of the building shell is planned for 2007. The entire project will be completed in 2008.

Post-Games Use

After the 2010 Winter Games, the curling venue will become a multi-purpose community recreation centre that will include an ice hockey rink, gymnasium, library and six to eight sheets of curling ice. Attached to, and being constructed with the new curling venue/community centre, is a new aquatic centre with a 50-metre pool and leisure pool to be managed by the Vancouver Board of Parks and Recreation

2. Cypress Park 2010 Winter Games Snowboarding and Freestyle Venue -

http://www.ceaa.gc.ca/050/Viewer_e.cfm?CEAR_ID=13019#Documents

- Federal (CEAA) and provincial (BC Parks) environmental assessment review process
- Snowboard venue developed on existing ski runs

- Freestyle skiing venue located within existing ski area in previously harvested forest
- All wood waste chipped and re-used on site
- Emphasis on local employment during construction phase
- Archaeological Overview Assessment completed with First Nations

Location:

49 degrees 23'44.24"N

123 degrees 12'05.81"W

Venue Description

With spectacular views of the city of Vancouver and its harbour, the freestyle and snowboard competition sites are located in Cypress Provincial Park within the District of West Vancouver. It is served by an excellent highway and has ample parking.

Construction Update

Venue upgrades include modifications to existing runs, a new in-ground halfpipe, a full snowmaking system and water reservoir, lighting, a new freestyle site for aerials and moguls, and a re-graded parallel giant slalom course. The construction process began in May 2006, following a comprehensive environmental review. To date, the freestyle coursework, the upper half of the PGS course and the snow-making pipework for the Freestyle Venue have been completed. In 2007, the Snowboard Venue coursework, the snowmaking system, the aerial judges' tower, the upgrade to the BC Hydro feed and all other improvements will be completed.

Post-Games Use

Cypress Mountain is one of the most popular skiing areas in British Columbia attracting hundreds of thousands of visitors each year. The 2010 Winter Games upgrades will enhance the Cypress experience for recreational and competitive users.

3. Richmond Oval –

http://www.ceaa.gc.ca/050/Viewer_e.cfm?CEAR_ID=7741

- Federal (CEAA) environmental assessment review process
- Targeting LEED Silver certification
- Development of already disturbed site into legacy community health and recreation complex
- Diverse energy-saving design measures being considered include: ground source heat pump for ice plant energy, ice plant heat recovery for HVAC, demand controlled ventilation, optimized boiler plant and reduced domestic hot water consumption
- Planned stormwater management initiatives include: rainwater to be re-used for irrigation, ice making and toilet flushing; construction of a wetland for onsite stormwater treatment

- Roof structure to be constructed completely of BC wood, including wood damaged by the pine beetle infestation
- Opportunities to showcase Musqueam Nation art

Location:

49 degrees 10'28.08"N

123 degrees 09'04.56"W

Venue Description

The Richmond Oval site is located on the banks of the Fraser River, 25 minutes south of the Olympic Village in downtown Vancouver. The site, in the northwest corner of Richmond, is across the river from Vancouver International Airport and near the Richmond city centre.

Construction Update

The Richmond Oval will be an outstanding theatre for sport with a new 400-metre track housed in a 33,750-square-metre facility. Key design elements include a state-of-the-art ice plant with superior air quality and climate controls. Facilities and systems will include offices, timing and athlete monitoring equipment, and fitness and strength training areas. Construction began in September 2005 with a completion date of fall 2008. To date, the foundations have been completed and the majority of trade contracts have been awarded. In 2007, the building structure, including the roof, will be completed.

Post-Games Use

After the Games, the Oval will become an international centre of excellence for sports and wellness. The Oval's flexible design will allow it to be used for a variety of sport and community functions. The Oval will be the centrepiece of a major new urban waterfront neighbourhood featuring a mix of residential, commercial and public amenity development.

4. Southeast False Creek Redevelopment (Olympic Athletes' Village) Project -

http://www.ceaa.gc.ca/050/Viewer_e.cfm?CEAR_ID=11135

Vancouver Olympic and Paralympic Village

- Federal (DFO) environmental assessment review process
- Community legacy of affordable housing units
- Targeting LEED Gold certification for all buildings, except for the Community Centre targeted for LEED Platinum
- Redevelopment of a former industrial area – restoration of contaminated lands, reduction/elimination of contaminants migrating to aquatic environment
- Planning for a District Energy System to serve the Village
- Significant creation of habitat corridors through parks and green space

- Stormwater management initiatives to include plans for green, bio-swales and surface drainage elements (minimal pipes)

Location:

49 degrees 16'15.97" N

123 degrees 06'35.51" W

Located in Vancouver's Southeast False Creek area, the Vancouver Olympic Village features modern low- and mid-rise accommodations for 2,100 athletes and officials and sits an average distance of 12 kilometres from Vancouver area competition venues. Athletes will be able to walk, bus or take a ferry to the city's shopping and entertainment districts, and enjoy nightly medal ceremonies and cultural celebrations just moments away at BC Place Stadium.

Construction Update

Development of the Village in southeast False Creek will be carried out by the City of Vancouver, in cooperation with VANOC and will conform to the City's plans to create a sustainable community in this area. The 1,100-unit project represents the final stage in the complete renewal of the False Creek site, started by the three levels of government in the 1970s. Site preparation and infrastructure work began in February 2006. Building construction is proceeding on schedule with completion scheduled for the third quarter of 2009. Temporary structures for the Games will be set up beginning in September 2009. Removal of temporary structures will start in March 2010 when the Village will assume its post-Games legacy design.

To date, restoration of the Heritage Salt Building foundation is complete, Development Permit Applications have been accepted and excavation has begun on 6 of 8 parcels (all Development Permits will be finalized by summer 2007) and the City of Vancouver site servicing, road building and waterfront restoration work is 90 per cent complete.

5. RECREATIONAL TRAILS - WHISTLER NORDIC CENTRE -

http://www.ceaa.gc.ca/050/Viewer_e.cfm?CEAR_ID=14589

6. Whistler Nordic Centre –

http://www.ceaa.gc.ca/050/Viewer_e.cfm?CEAR_ID=2151

Whistler Nordic Venue

- Provincial (BC EAO) and federal (CEAA) environmental assessment review
- Smart site selection – previously harvested forest, adjacent to a former mine, significant commercial and public recreational use
- Minimized site disturbance and overall footprint:
 - avoided old growth forest and wetlands
 - reduced stream crossings
 - maximized riparian area protection

- Venue layout designed to favour natural land contouring and minimize site grading and clearing requirements
- Targeting LEED Silver certification for Day Lodge
- Waste wood re-use:
 - On-site re-use of vegetation debris for temporary operations compounds
 - On-site composting for site green-up material
- Assured employment and economic opportunities for Squamish Nation & Lil'wat Nation (Shared Legacies Agreement)
- Squamish Nation and Lil'wat Nation companies awarded contracts for site preparation and building construction
- Naming, recognition and artwork opportunities for the Squamish Nation and Lil'wat Nation at venue site

Location:

50 degrees 08'26.54"N

123 degrees 06'30.79"W

Venue Description

The compact two square kilometre 2010 Winter Games core area includes three separate stadiums located about 500 metres apart. Approximately 14 kilometres of competition trails for cross-country skiing (two separate five-kilometre loops) and biathlon (one four-kilometre loop) will be built in addition to eight kilometres of training trails. Two ski jumps (normal hill and large hill) will be visible by all visitors as they enter the venue. An additional 20 to 25 kilometres of recreational trails will cover spectacular cross-country ski terrain next to the 2010 Winter Games core area. Read more on the [environmental approval process](#) for the Whistler Nordic Venue recreational trails.

All the Paralympic cross-country skiing and biathlon events will start and finish from the Olympic cross-country stadium and will use parts of the Olympic cross-country competition trails. Competition courses include a 5-kilometre course for the standing classes and a 3.75-kilometre course for the sit-ski classes. Several kilometres of training trails will be available near the competition courses. A temporary and portable 10-metre biathlon range will be set up in the stadium for the biathlon events.

Construction Update

The construction project involves the competition facilities as described above, technical sport buildings at each of the stadiums, sewer/water/power services, access roads, internal roads, parking lots, a day lodge and other related infrastructure facilities. Construction of the permanent elements of the Nordic venue began in April 2005 and will be completed by fall 2007. To date, the biathlon course, ski jump area and building foundations are complete, as well as 70 per cent of the cross-country skiing course. All competition venues, roads, infrastructure and sport buildings for this site are scheduled to be completed by fall 2007. Temporary construction and facilities set-up will commence in summer 2009.

Post-Games Use

The Nordic venue will serve as a legacy for the enjoyment of local residents, visitors and athletes in a variety of ways from recreational uses to high performance sport.

7. Whistler Sliding Centre –

http://www.ceaa.gc.ca/050/Viewer_e.cfm?CEAR_ID=8146

- Federal environmental assessment review (CEAA)
- Smart site selection – adjacent to disturbed areas within major ski area (ski trails, parking lots)
- Site designed to minimize required vegetation-clearing and to reduce facility footprint (soft edges, tree islands)
- Targeting LEED Silver certification for the refrigeration plant building
- Energy efficiency – capture and re-use of waste heat from refrigeration plant
- Re-use of vegetation debris – all wood waste chipped and composted
- No chlorofluorocarbons (which contribute to ozone layer depletion and global climate change) used in refrigeration system
- Long-term operations and revenue generation opportunities through athlete training facility and visitor use
- First construction contract (2005) awarded to local Whistler company (Coastal Mountain Excavations Ltd.)
- Naming, recognition and artwork opportunities for the Squamish Nation and Lil'wat Nation at venue site

Location:

50 degrees 06'19.21"N

122 degrees 56'33.82"W

Venue Description

Located on Blackcomb Mountain in the resort of Whistler, the new sliding track is integrated into Whistler's long-term resort development plan. The Whistler Sliding Centre will be an excellent site to showcase sliding sports to the public. Its location near several of the resort's world-class hotels will attract many tourists, providing a sustainable revenue stream that will support the Centre's long-term operations.

Construction Update

The project features construction of a new 1,700 m concrete sliding track, refrigeration facilities and access road. Construction began in June 2005 with the track slated for completion in winter (December) 2007. To date, 10 of 23 track sections, all building foundations, the refrigeration building structure, and the BC Hydro connection have been completed. By winter 2007, the track and all buildings will be complete.

Post-Games Use

The Centre will be operated under the direction of the Whistler Legacy Society, supported by an endowment trust that was established by the federal and provincial governments as part of their 2010 Winter Games venues investment. This high-performance competition centre, located in the heart of the Whistler/Blackcomb resort, will introduce sliding sports to the area's many visitors.

8. Whistler Creekside Alpine Skiing Venue -

http://www.ceaa.gc.ca/050/Viewer_e.cfm?CEAR_ID=15677

Sustainability Attributes:

- Federal (CEAA) environmental assessment review process
- Smart site selection – venue located on existing ski trails within major ski area
- All wood waste chipped and re-used on site
- Leading-edge high energy efficient snowmaking system
- Proactive construction management to avoid and minimize potential impacts to wildlife and aquatic and terrestrial habitat
- Emphasis on local employment, purchasing and contracting opportunities during construction phase
- Post-Games legacy of enhanced training, racing and recreational ski trails

Location:

50 degrees 06'21.49"N

122 degrees 57'18.99"W

Venue Description

Consistently ranked one of the top ski resorts in North America, the Whistler Resort welcomes more than two million visitors each year. It has extensive experience hosting FIS World Cup competitions. The men's downhill course for the 2010 Olympic Winter Games – the Dave Murray Downhill – is a very well-respected and challenging course. The women's downhill course for 2010 is Franz's Run. All Paralympic alpine skiing events will also take place on Franz's Run.

Construction Update

Improvements include contouring and reshaping of the men's and women's downhill courses, additions to the existing snowmaking system and an enhanced reservoir for snowmaking. Improvements began in summer 2006 and are to be completed by fall 2007. To date, 90 per cent of the course work has been completed, 50 per cent of the snowmaking pipework has been installed, the high voltage power distribution is substantially complete, and the main pump station has been commissioned. By fall 2007, the snowmaking system and course grading will be complete, and the skier underpasses will be constructed. Temporary structures for the Games will be set up August 2009.

Post-Games Use

Whistler Creekside will continue to offer a world-class ski area to recreational skiers and will be a site for future international competitions and Canadian team training.

9. Whistler Athlete Village and Legacy Neighbourhood -

http://www.ceaa.gc.ca/050/Viewer_e.cfm?CEAR_ID=15811

Whistler Olympic and Paralympic Village

- Federal (CEAA) environmental assessment review process
- Smart site selection – adjacent to disturbed area (former municipal landfill)
- Waste heat capture and re-use from municipal waste water treatment system
- Capture and re-use of methane gas from former municipal landfill
- Diverse energy options being explored for a common neighbourhood energy system
- Potential to pilot LEED Neighbourhood Design green development standard
- Community legacy of affordable resident housing units

Location:

50 degrees 04'48.54"N

123 degrees 02'17.17W

The Whistler Olympic and Paralympic Village site is located within the scenic Cheakamus Valley. Designed for 2,400 athletes and officials, the Whistler Olympic and Paralympic Village is less than 20 minutes from all the Whistler competition venues. A short shuttle ride will take athletes to the heart of Whistler Village and the nightly medal ceremonies at the Whistler Celebration Site in the town's centre.

Construction Update

The master plan includes the development of site infrastructure, residential accommodation, commercial spaces, external landscape and trail network, and preparation of sites for overlay locations to be completed prior to the site hand-over to VANOC on November 1, 2009. Road, rail and site grading will maximize accessibility across the new subdivision. Where lands are intended for an alternate legacy use, they will be prepared to the extent required for Games-time.

To date, site preparation work was completed in November 2006, ahead of schedule. Utilities installation and road building began, as of April 1, 2007, and is progressing on schedule. Architectural design concepts for the town homes have been developed and submitted as a Development Permit to the Resort Municipality of Whistler (RMOW), the engineering design of all roads is substantially complete, and the Whistler Athlete Centre high performance facility Development Permit application has been submitted. In 2007, construction of the residential zone and the Whistler Athlete Centre will commence, and the decommissioning of the Municipal Landfill will be complete.

Temporary structures for the Games will be set up starting in September 2009. Removal of temporary structures will start in March 2010 and the Village will assume its post-Games legacy design.

10. SEA TO SKY HIGHWAY IMPROVEMENT PROJECT -

http://www.ceaa.gc.ca/051/report_e.cfm?FeaiNo=41355

Vancouver 2010 Trout Lake Practice Venue -

http://www.ceaa.gc.ca/050/Viewer_e.cfm?CEAR_ID=24283

11. Vancouver 2010 Killarney Practice Venue -

http://www.ceaa.gc.ca/050/Viewer_e.cfm?CEAR_ID=23120

Practice venue for ice hockey

12. UBC Winter Sports Centre

- Targeting LEED Silver equivalent
- Redevelopment of an existing facility, including refurbishment and re-use of major components of the existing ice plant
- Waste heat recovery from ice plant to heat building and domestic water
- Opportunity to showcase Musqueam Nation art

Location:

49 degrees 15'40.21"N

123 degrees 14'35.11"W

Venue Description

UBC is a sprawling, ocean-side university campus on Vancouver's west side, well served by public transport. Ice Hockey and Ice Sledge Hockey will be hosted at the UBC Winter Sports Centre, with Ice Hockey also taking place at General Motors Place.

Construction Update

Construction began in April 2006 on this project. It includes refurbishing the existing competition arena and the construction of two new rinks. One will be used in training, and the other will be a new 7,000-seat competition facility. To date, the renovation to the existing Father Bauer rink and the construction of the new practice rink building are complete and have been handed over to UBC in preparation for their summer hockey schools. The foundations for the new main arena are complete and the structural steel roof is being erected. The main arena is on schedule for completion by summer 2008.

Post-Games Use

Following the Games, the venue will become a recreational and high-performance

multi-sport legacy facility. The new training arena will be easily convertible to ice sledge hockey training and competition.

13. General Motors Place:

49 degrees 16 minutes 40.72 seconds N

123 Degrees 06 minutes 28.07 seconds W

Ice Hockey will be staged in two venues: General Motors Place and the UBC Winter Sports Centre. General Motors Place is located on a rapid transit line in downtown Vancouver.

Construction Update

On June 7, 2006, VANOC and the IIHF announced the 2010 ice hockey tournaments will be played on North American size ice surfaces rather than converting to the larger international size. Engineering studies are underway to determine building modifications that will be necessary to meet Olympic Games requirements. Modifications at General Motors Place will be timed to minimize any disruption to regular activities in the building.

Post-Games Use

This world-class facility is home of the National Hockey League (NHL) Vancouver Canucks, and hosts major sport and entertainment events throughout the year.

14. Pacific Coliseum:

49 Degrees 17'08.28N

123 Degrees 02'33.99W

Venue Description

The Pacific Coliseum at Hastings Park is at the core of one of the City's major event sites, only 15 minutes from the Vancouver Olympic and Paralympic Village. As home of an annual fair that attracts up to 60,000 people a day, this site is very well served by public transport.

Construction Update

The upgrades to Hastings Park are part of long-term restoration plans that began in 1994. Structural and cosmetic renovations will revitalize the Pacific Coliseum to address Games- and community-related needs. The replacement of nearly 16,000 seats at the Coliseum and the expansion of the ice surface to international size have been completed. The balance of the building and technical changes for the Coliseum include ice plant improvements and upgrades to washroom facilities, concession space, building Heating Ventilation Air Conditioning (HVAC) and dehumidification systems. All upgrades are scheduled to be completed by fall 2007 to minimize disruption to normal business operations.

Post-Games Use

As the largest building within the Hastings Park complex, the Pacific Coliseum will continue to serve as a venue for diverse events such as ice shows, boxing, basketball, hockey, concerts, large assemblies, and trade and consumer shows.

15. Whistler Awards Plaza:

50 degrees 07'07.57"N

122 degrees 57'18.15"W

In addition to Vancouver's BC Place Stadium, nightly Victory Ceremony presentations for the 2010 Olympic Winter Games will be held at an outdoor celebration site created in Whistler Village. The Paralympic Closing Ceremony will also be presented at this site.

16. BC Place Stadium:

49 degrees 16'35.97"N

123 degrees 06'43.18"W

The Opening and Closing Ceremonies for the 2010 Olympic Winter Games and the Opening Ceremony for the 2010 Paralympic Winter Games will be held in BC Place Stadium in downtown Vancouver. This will also be the venue for nightly Victory Ceremonies presentations.

17. Main Media Center – Vancouver Exhibition and Convention Center:

49 degrees 17'20.37" N

123 degrees 06'59.67W

The Main Media Centre (MMC) for the Vancouver 2010 Winter Games will be located in the Vancouver Convention and Exhibition Centre (VCEC) on the city's downtown waterfront. Currently undergoing an expansion, the VCEC will house the Main Press Centre and the International Broadcast Centre. This venue allows VANOC to provide a common location with shared services for press and broadcasters, as has been done in previous Winter Games in Torino and Salt Lake City.

The VCEC expansion project began in November 2004 and will be completed in 2009 tripling the size of the existing convention centre and offering more than 59,000 square metres of functional space for the MMC.

The existing convention centre facilities, located within the Canada Place complex, will be the site of the Main Press Centre providing workspace for the approximately 2,800 accredited members of the written and photographic press. It will host the shared services for all media (press and broadcasters).

The International Broadcast Centre will be housed in the VCEC expansion providing

workspace for some 7,000 accredited broadcasters and technicians who will produce live television and radio coverage of the 2010 Winter Games.

The VCEC opened in July 1987 after originally serving as the Canada Pavilion during the Expo 1986 World's Fair. The facility has a unique sail-like roof design making the Convention Centre Vancouver's most distinctive building landmark.

Locations sourced from Google earth: WGS84

Descriptions sourced from VANOC:

<http://www.Vancouver2010.com/en/WinterGames/2010GamesVenues>

Sustainability Attributes of Venues and Villages -

<http://www.Vancouver2010.com/en/Sustainability/EnvironmentalStewardship>

11 Appendix C – Response and Venue Summary

Table 4 - Response Summary

Response Summary								
Efficacy and Process	Government	%	Industry	%	Public	%	overall	%
Public Consultation adequate	5	71.43	4	80	2	100	11	78.57
First Nations - important role	4	57.14	4	80	1	50	9	64.29
properly assessed to letter of law	4	57.14	3	60	1	50	8	57.14
effective in better projects	4	57.14	3	60		0	7	50.00
overall capacity issues	3	42.86	2	40	1	50	6	42.86
Difficult to get through all documents	3	42.86	1	20	2	100	6	42.86
weakness in monitoring	1	14.29	3	60	1	50	5	35.71
Capacity Issues for Follow-up	2	28.57	3	60		0	5	35.71
Strategic	3	42.86	2	40		0	5	35.71
Weakness in Enforcement	1	14.29	2	40	1	50	4	28.57
Government needs to be better informed		0	4	80		0	4	28.57
Acts are weak at environment protection	2	28.57	1	20	1	50	4	28.57
Monetary Issues for Follow-up	1	14.29	1	20	1	50	3	21.43
conflict of interest for government	1	14.29	1	20	1	50	3	21.43
s2s as Olympic venue		0	1	20	1	50	2	14.29
First Nations - paid off		0	1	20	1	50	2	14.29
Clear Communication is essential	1	14.29		0	1	50	2	14.29
Cumulative lacking or flawed	1	14.29	1	20		0	2	14.29
Cumulative	1	14.29	1	20		0	2	14.29
Strategic lacking or flawed	1	14.29	1	20		0	2	14.29

Pressure	Government	%	Industry	%	Public	%	overall	%
Yes	2	28.57	3	60		0	5	35.71
No	3	42.86		0	1	50	4	28.57
Who?								
Federal	1	14.29	1	20		0	2	14.29
Province	1	14.29	2	40	1	50	4	28.57

Influence	Government	%	Industry	%	Public	%	overall	%
Proponent	1	14.29	2	40	1	50	4	28.57
Province	1	14.29		0	1	50	2	14.29
Feds	2	28.57		0		0	2	14.29
IOC		0	1	20		0	1	7.14
First Nations		0	1	50		0	1	7.14

Harmonization	Government	%	Industry	%	Public	%	overall	%
should be harmonization	4	57.14	3	60		0	7	50.00
control issues	1	14.29	4	80	1	50	6	42.86
timelines do not always mesh up	4	57.14	1	20		0	5	35.71
effective in better projects	2	28.57	2	40		0	4	28.57
should not be harmonization		0		0	2	100	2	14.29
not harmonized		0	1	20		0	1	7.14

Meeting International Expectations	Government	%	Industry	%	Public	%	overall	%
VANOC is being responsible	6	85.71	5	100		0	11	78.57
IOC irrelevant		0	3	60		0	3	21.43
these will be a green Olympics		0	1	20		0	1	7.14
s2s has to be recognized as Olympic		0		0	1	50	1	7.14

Table 5 - Venue EIA info

Venue Name	Development Type	EIA Type	Responsible Authority	Trigger
Richmond Oval	Competition Venue	S	CH	Funding
Alfred McLean Baily	Competition Venue	S	CH	Funding
Trouf Lake	Competition Venue	S	CH	Funding
Killam	Competition Venue	S	CH	Funding
Cypress Mountain	Competition Venue	S-H	CH + BC Parks	Funding + BC Parks IA Process
GM Place	Competition Venue	N/A		
Whistler Nordic Center	Competition Venue	S-H	CH + TC	Funding + New Waters PA + VANOC Opt-in to BCEAA
Whistler Sliding Center	Competition Venue	S	CH	Funding
Whistler Creekside	Competition Venue	S	CH	Funding
UBC Winter Sports Arena	Competition Venue	S	VANOC	Internal
Pacific Coliseum	Competition Venue	S	VANOC	Internal
BC Place	Non-Competition Venue	N/A		
Whistler Athlete Village	Non-Competition Venue	S	CH + TC	Funding + New Waters PA
Whistler Ceremony Plaza	Non-Competition Venue	N/A	CH	Funding
Whistler Media Center	Non-Competition Venue	N/A	N/A	N/A
Main Media Center/VCEC	Non-Competition Venue	S-H	IC + DFO + TC	Funding + New Waters PA + Fisheries Act + Priv. Ren. Projects Reg.
Vancouver Athlete Village	Non-Competition Venue	S	DFO + TC	Fisheries Act + New Waters PA
Whistler Nordic Rec. Trails	Non-Competition Venue	S-H	CH + DFO + TC	Funding + VANOC BCEAA opt-in
Canada Line - Sky Train	Public Infrastructure	S-H	TC + EC + DFO + IC	Funding + CEPA + New Waters PA + Fisheries Act + Proponent BCEAA Opt-in
Sea-to-Sky Highway	Public Infrastructure	S-H	DFO	Fisheries Act
<p> S=Screening H=Harmonized N/A=Not Applicable N/A=Not Commenced </p>				
<p> CH = Canadian Heritage TC = Transport Canada DFO = Department of Fisheries and Oceans IC = Infrastructure Canada EC = Environment Canada N/A=Not Applicable </p>				
Legend:				

Table 6 - Venue EIA Info 2

Venue Name	EIA Decision and requirements	Activity Taking Place
Richmond Oval	Approved - Mitigation - effects not likely adversely significant	Long Track Speed Skating
Hillcrest/Mat Bailey	Approved - Mitigation - effects not likely adversely significant	Curling
Trout Lake	Pending	Hockey
Killarney	Pending	Hockey
Cypress Mountain	Approved - Mitigation - effects not likely adversely significant	Freestyle Skiing, Snowboarding
GM Place	Not Started	Hockey
Whistler Nordic Center	Approved - Mitigation + Follow-up - effects not likely adversely significant	Cross Country Skiing, Biathlon, and Ski Jumping (long jump)
Whistler Sliding Center	Approved - Mitigation - effects not likely adversely significant	Luge, Bobsled, Skeleton
Whistler Creekside	Approved - Mitigation - effects not likely adversely significant	Downhill ski racing
UBC Winter Sports Arena	Approved - Mitigation - effects not likely adversely significant	Ice and Sledge Hockey
Pacific Coliseum	Approved - Mitigation - effects not likely adversely significant	Figure Skating and Short Track
BC Place	Not Started	Opening and Closing Ceremonies - Nightly Medal Presentations
Whistler Athlete Village	Approved - Mitigation - effects not likely adversely significant	Residence for Athletes
Whistler Ceremony Plaza	Not Started	Awards and Celebration Plaza
Whistler Media Center	N/A	Media Broadcasting
Main Media Center/VCEC	Approved - Mitigation - effects not likely adversely significant	Media Broadcasting
Vancouver Athlete Village	Approved - Mitigation (limited) - effects not likely adversely significant	Residence for Athletes
Whistler Nordic Rec Trails	Pending	for cross country skiing and hiking purposes
Canada Line - Sky Train	Approved - Mitigation - effects not likely adversely significant	Connects YVR to Downtown
Sea-to-Sky Highway	Approved - Mitigation - effects not likely adversely significant	Main highway route Connecting Whistler and Vancouver

Table 7 - Venue Development info

Venue Name	Considered an Olympic Venue or Development	New Construction or Renovation
Richmond Oval	Yes	New Construction
Hillcrest/Nat Baily	Yes	New Construction
Trout Lake	Yes	renovation + New Construction
Killarney	Yes	renovation + New Construction
Cypress Mountain	Yes	renovation + New Construction
GM Place	Yes	Renovation
Whistler Nordic Center	Yes	New Construction
Whistler Sliding Center	Yes	New Construction
Whistler Creekside	Yes	Renovation and temporary grandstand
UBC Winter Sports Arena	Yes	renovation + New Construction
Pacific Coliseum	Yes	Renovation
BC Place	Yes	Renovation
Whistler Athlete Village	Yes	New Construction
Whistler Ceremony Plaza	Yes	New Construction
Whistler Media Center	Yes	Pre-Olympic modernization - no new construction
Main Media Center/VCEC	Venue by VANOC but not Development for EIA	New Construction
Vancouver Athlete Village	Yes	New Construction
Whistler Nordic Rec Trails	It is a Legacy Project. The EIA was split off from the Nordic Center	New Construction
Canada Line - Sky Train	Not by VANOC	New Construction
Sea-to-Sky Highway	Not by VANOC	Renovation + New Construction

Table 8 - Venue Coordinates

Degrees Decimal N	Degrees Decimal W	UTM Northing	UTM Eastings	Latitude/Longitude	NTS	Venue Name
49.17446	123.1512	5446861.048	511020.4706	49°10'28.08"N 123°09'04.56"W	092G03	Richmond Oval
49.24502	123.1109	5454700.069	508071.6419	49°14'42.08"N 123°06'39.51"W	092G03	Hilcrest Nat Baily
49.255415	123.065743	5455851.044	504783.9728	49°15'19.49"N 123°05'56.67"W	092G03	Trout Lake
49.226246	123.045983	5452600.039	503302.91	49°13'34.39"N 123°02'43.31"W	092G03	Kilarny
49.39561	123.2016	5471454.999	514528.3906	49°23'44.24"N 123°12'05.01"W	092X06	Cypress Mountain
49.27797	123.1077	5458362.793	507833.519	49°16'40.72"N 123°06'28.07"W	092J02	GM Place
50.1407	123.1005	5554280.276	507753.4598	50°08'26.54"N 123°05'30.79"W	092J02	Whistler Nordic Center
50.10533	122.9427	5550340.631	495902.4556	50°06'19.21"N 122°56'33.82"W	092J02	Whistler Sliding Center
50.10506	122.9552	5550412.967	495796.3772	50°06'21.49"N 122°57'18.99"W	092J02	Whistler Creekside
49.26116	123.2403	5450516.046	517680.5134	49°15'40.21"N 123°14'35.11"W	092G03	UBC Winter Sports Arena
49.28563	123.0427	5450209.658	503105.2877	49°17'08.28"N 123°02'33.99"W	092J02	Pacific Coliseum
49.27655	123.1119	5450205.374	508139.238	49°16'35.97"N 123°05'43.18"W	092G03	BC Place
50.08015	123.0387	5547542.961	502725.9734	50°04'48.54"N 123°02'17.17"W	092J02	Whistler Athlete Village
50.11816	122.955	5551836.156	495782.933	50°07'07.57"N 122°57'18.15"W	092J02	Whistler Ceremony Plaza
50.114389	122.957946	5551346.71	495693.2681	50°05'51.69"N 122°57'20.61"W	092J02	Whistler Media Center
49.28899	123.1166	5450580.054	508478.9873	49°17'20.37"N 123°05'59.67"W	092X06	Main Media Center/CEC
49.2711	123.1094	5451599.229	507958.273	49°16'15.97"N 123°05'35.51"W	092G03	Vancouver Athlete Village
50.1407	123.1005	5554280.276	507753.4598	50°08'26.54"N 123°05'30.79"W	092J02	Whistler Nordic Rec Trails
49.2	123.1	5446864.11	507284.9213	49° 12'0"N 123° 6'0"W	092G03	Canada Line - Sky Train
49.35565	123.2656	5460251.188	519356.2484	49° 22' 00"N 123° 16' 00"W	092X06	Sea-to-Sky Highway

12 Appendix D – In-depth Response on Harmonization

“One of the big issues for provincial authorities is jurisdiction. I think it is still an issue now and with so many things blame the constitution...it originates out of interpreting the constitution. That EA sometimes creates a situation where the province feels the federal departments have been empowered to start making comments or prescribing measures that are in areas of provincial jurisdiction. Trying to get this overlap really well defined is an ongoing issue; that being said we do manage to complete these EAs. I guess an example would be that the province, in many areas, has provincial experts. Certainly the whole wildlife side of things...Because we are harmonized we are trying to deal with those issues even if the provincial opinion is that these issues are manageable or not really a concern to the province. In the harmonization review we have to get everything off the table, we have to show that we have resolved all the issues before we make a referral to the ministers to make a decision, or before the federal government makes their decisions. That is where you can get some of these contentious issues because it may be that there.

If there is a federal comprehensive study we have yet to work out how these are to work together. They have certain consultation components that happen while we are ongoing, it just doesn't line up...If it's only a screening under the federal, then our comment periods and everything we do at pre-application fits together really well with the federal government process. When it is a comp study then they have to go out and do their scoping document, that's happening and we can't wait. This scoping is another issue. The federal government doesn't really scope the project until they get a bunch of information, but we can scope it fairly generally for the purposes of our EA and until they scope the project or until they have a fair amount of info, some federal departments will not know if they have a trigger under CEAA. So we start, somebody comes into our process, they are under the federal review as well, we are going along we are sending our information requirements we have the federal government at the table, or maybe we don't because they are like “well we don't know if we have a trigger or we have other projects that are of higher priority” we go along, they file the application finally, after several years of work and a federal department says, ‘op we have a trigger and now we are going to scope the project’, and they scope it differently then we did earlier on, and that can happen or ‘op, this is going to be a comprehensive study’ so we've said for a long time “we need you to scope these projects as early as possible, we have to know because it can have this impact on the harmonized review”

We can de-harmonize on an EA. We have not done that, its like a family, you get into big arguments and stuff and are frustrated with what is happening, but you still say probably more so than not, it is still worth to continue along this course.

Nordic center - They did split them so some of the work could be done later, whether it was grizzly bears or First Nations consultation, but what they did was acceptable to everyone. They could not split those trails off; the federal government is very particular. You will hear project splitting but under CEAA you can't project split, it has to make sense as a component. So the splitting that was done, not

splitting, but separating out one component. And when we have more information on this component then we will assess it. That was acceptable to all the agencies at the table or it could not have happened as the federal government would say it couldn't happen, even if it satisfied all our needs...(my note: would this not be akin to reducing the individual project to a smaller footprint to avoid impacts of a larger area per assessment? Since CEA is not a provincial requirement, could the EAI not just spit projects that may have an impact into smaller sections?) Our act is designed to allow for a certain amount of flexibility. That means tailoring an EA to suit the project which is being assessed, not having a cookie cutter. Then having the ability, again we are not sacrificing the thoroughness of the assessment, but having the flexibility, in this case, do we hold up the whole project, is the trails component in this case is it something that has a make or break influence on the other part of the project

I think they have both been examples of successful harmonization. The s2s why project, I think that went very well, and further, you know there was a court challenge (eagle ridge bluffs coalition group) who brought legal action against the federal government, they tried to have the screening decision overturned as they had argued the assessment had not been done properly. The courts upheld the federal decision, saying it was done properly, that is pub record to. That means we did our work properly and the work we did together with the federal government, it is the ultimate scrutiny when you file for a judicial review.

I think it does show benefit to others, I think a lot of provinces have bi-lateral agreements already with the federal government so, and again, it depends on part with how the legislations are structured. BC was one of the first, we signed two, the first one was one of the early ones and that got picked up by some of the other jurisdictions when they were putting their own together and I think it worked fairly well. It is difficult to say what people would take from it but I think many of them are quite similar...so we don't create onerous and unreasonable process requirements on a proponent...we always talk about avoiding duplication and overlap, lets ask for something once, lets get it in a form both of us can use, but lets respect our autonomy for decision making

Well when you are totally in the private sector, you are in a competitive environment. Mining is the best example, there are development costs to proponents depending on how long they are in the process, and I can give you an example, if government can't work out what is expected of a proponent, or there are undue delays on the assessment, and the proponent is borrowing money on the open market to finance the project, or has to be planning 8 or 9 years in advance... So it is really important that government has, as much as possible, a very coordinated and streamlined process that doesn't require somebody to do the same thing twice if they are going for a process... if you are looking at a market basis people will say "does it make sense for me to invest my money here or are the process requirements such that I should go somewhere else...Having gone through a thorough process is actually a bonus to, on the private companies, they can show that they have gone through a very strict environmental review, so we have taken all these things into account, and that is something that they can take out if they are trying to finance for the project and so on"

13 Appendix E – VANOC Board of Directors

Table 9 - VANOC Board of Directors

Name	Description of education background, nominating group, and non-VANOC professional position(s).
Richard Turner	President and chief executive officer of TitanStar Investment Group Inc., a private company that provides equity capital for real estate developments and acquisitions (VANOC, 2008). Beyond his current corporate position, Turner has deep temporal ties to the real estate development market as from 1980-1988, he held various management positions with a number of financial institutions in Canada, where he was responsible for real estate, corporate and commercial lending activity in British Columbia. He holds a bachelor of commerce degree in finance from the University of British Columbia and was nominated by the province of British Columbia (VANOC, 2008).
Peter Brown	Is the founder and current chair of the Canaccord Capital Corporation who invest in the real estate market (Canaccord-Capital, 2008) and director for the Investment Industry Association of Canada (IIAC), which is a lobby for the investment industry in Canada which: “works to ensure legislation and regulatory policy implemented by SROs, securities commissions, government bodies and other industry entities recognize our members' business realities and requirements” (IIAC, 2008). A quick review of the publications released by the IIAC fails to

	<p>uncover a single mention of environmental sustainability or protection.</p> <p>He also served as chair of the British Columbia Enterprise Corporation and the Vancouver Stock Exchange and worked as the Chair of the finance committee of Expo '86 (VANOC, 2008), which ran a deficit of \$311 million (O'Leary, 2008). Peter Brown was nominated by the Government of Canada (VANOC, 2008).</p>
Michael Chambers	<p>Currently serving his second term as President of the Canadian Olympic Committee (COC). He is a member of the Pan Olympic Solidarity Commission; a member of the executive committee for the Pan American Sports Organization; and president of the Sports Venues Commission of the Association of National Olympic Committees (ANOC). Most recently he was appointed to the IOC Working Group for the 2014 Olympic Winter Games. Chambers holds two bachelor degrees in commerce and laws from the University of Ottawa, and is a partner in the offices of the Ottawa law firm Maclaren Corlett LLP. Chambers was nominated by the Canadian Olympic Committee</p>
Charmaine Crooks	<p>In 1996, Crooks was named Canada's flag bearer at the Opening Ceremonies of the 1996 Centennial Olympic Games. After participating in her fifth consecutive Olympic Games in Atlanta, Crooks was elected as a member of the IOC Athletes Commission and served as an IOC member until 2004. Since 2001, Crooks has been a member of the Advisory Board of AIM/Trimark Mutual Funds, and is a member of its Governance Committee. Crooks attended the</p>

	University of Texas El Paso on athletic scholarship, graduating with a degree in psychology and she was nominated by the Canadian Olympic Committee.
Carol Stephenson	Is the dean of the Richard Ivey School of Business at the University of Western Ontario and holds the position of a director on the Ontario Teachers' Pension Plan (VANOC, 2008) which holds 16.4 billion dollars in real-estate investment, managed by The Cadillac Fairview Corporation Limited (OTPP, 2008), where other VANOC board member, Jefferson J. Mooney sits on the board. Ms. Stephenson's is also involved with Olympic Sponsors having a previous position as group vice president for logistics and for rates, regulatory matters and strategic planning at Bell Canada and president and chief executive officer at BCE Media and Stentor Resource Centre. She also sits as a member of the General Motors of Canada Advisory Board and as a director of ING Canada She was nominated by the Government of Canada (VANOC, 2008)
Chris Rudge	Sits on the board of Merrill Lynch Canada, which is an investment banking firm which heavily invests in the real-estate market. Rudge was nominated by the Canadian Olympic Committee and holds a teaching certificate from Queen's University and a Bachelor (Honours) of Physical and Health Education from the University of Toronto. (VANOC, 2008).
Rusty	Is senior vice president of the Canadian arm of Raymond James Inc -

Goepel	<p>Raymond James Ltd – which is one of North America’s largest full-service investment firms working with powerful energy and construction and development firms (Raymond-James-Ltd., 2008).</p> <p>Goepel also sits on the boards of various companies including Amerigo Resources (which owns Minera Valle Central – owners of Codelco’s El Teniente mine, the worlds largest copper mine, located in Chile) and Spur Ventures which produces synthetic fertilizers in China. Goepel was nominated by Province of British Columbia holds a B.Comm (Honours) from the University of British Columbia (VANOC, 2008).</p>
Jefferson J. Mooney	<p>Sits on the boards of Cadillac Fairview Corporation and Finning International Inc among other posts (VANOC, 2008). Cadillac Fairview Corporation is “one of North America's largest investors, owners and managers of commercial real estate. For more than 50 years, Cadillac Fairview has been leading the way in commercial real estate with innovative design, development and management” (The-Cadillac-Fairview-Corporation-Limited, 2008) Finning International is Canada’s leading distributor of Caterpillar construction vehicles and machines. Mooney was nominated by the City of Vancouver and is an alumnus of the University of Saskatchewan and Harvard Graduate School of Business (VANOC, 2008).</p>
Michael Phelps	<p>Is a senior advisor of Deutsche Bank which is a world-wide investment firm with deep ties to the real estate market. Phelps also sits on the board of three major North American energy corporations (Canfor</p>

	<p>Corporation, Duke Energy, Fairborne Energy Trust) and was nominated by the Canadian Olympic Committee and holds a B.A. and an LL.B. from the University of Manitoba. He completed his master of laws from the London School of Economics in 1971, and has received honorary doctorates of laws from the University of Winnipeg (1992) and Simon Fraser University (1994) (VANOC, 2008).</p>
Walter Sieber	<p>Recently re-elected Vice President of the Canadian Olympic Committee, Walter Sieber has been involved with the organization in this capacity since 1982. His current term extends through the 2010 Olympic Winter Games in Vancouver and Whistler.</p> <p>Internationally renowned for his sport administration expertise, Sieber has since 2000 been a member of the IOC's Olympic Games Program Commission and also serves on the Summer and Winter Games Selection committee for Athletes. Sieber studied administration in Switzerland and physical education at l'Université de Montréal and was nominated by the Canadian Olympic Committee (VANOC, 2008).</p>
Beckie Scott	<p>Three-time Olympian Beckie Scott retired in 2006 as Canada's most successful cross-country skier and one of the world's best all-around cross-country racers. Scott joined Right To Play as an Athlete Ambassador in January 2003 and is now also a co-chair of its Canadian advisory council. She was named a UNICEF Canada special representative and in the spring of 2003 traveled to West Africa with UNICEF as part of its "Girl's Education" campaign. Scott attended the</p>

	University of Waterloo and was nominated by the Canadian Olympic Committee (VANOC, 2008).
Judy Rogers	Is city manager for the City of Vancouver, Canada's third largest municipality and consistently rated one of the world's most livable cities. She has held the role since 1999 and was the first woman to be appointed to the position in Vancouver. Rogers is also Chair of the Board of Legacies Now, whose mission is to promote community legacies before, during and after the 2010 Games. She was also pivotal in negotiating the Vancouver Agreement, an urban development agreement between the tri-levels of government that has allowed for the gentrification of the Downtown Eastside. She holds a masters in public administration degree from the University of Victoria and was nominated by the City of Vancouver. (VANOC, 2008).
Patrick Jarvis	Patrick competed at the 1992 Paralympic Summer Games in Barcelona (athletics) and also competed as a member of the Alberta Disabled ski racing team from 1986 to 1988. Patrick is the owner of Amarok Training Services Ltd., a training firm specialising in job performance management, providing consulting, facilitation and training delivery services. Nominated by the Canadian Paralympic Committee (VANOC, 2008).
Chief Gibby Jacob	Carries the title of hereditary Chief and member of the Squamish First Nation. Chief Jacob is the director for the Squamish Nation Land Claims Department. Appointed in 2000 by Squamish Nations Chiefs

	and Council as the department head of Land Claims and official spokesperson for the Nation, he has played an instrumental role as the intergovernmental relations representative and chief negotiator for the development of treaties between First Nations, municipal, regional, provincial and federal governments. Chief Gibby Jacobs was nominated by Squamish and Lil-wat First Nations (VANOC, 2008).
Jim Godfrey	Is currently the executive director for the 2010 Winter Games in Whistler. Prior to accepting this position he was the municipal administrator for the Resort Municipality of Whistler, a community that is internationally recognized as one of the world's top year-round destination resorts. Godfrey has also been a winner of the Fraser Institute's Economy in Government Competition and was nominated by the Resort Municipality of Whistler (VANOC, 2008).
Jacques Gauthier	A lawyer and a strong proponent for sustainable energy, Mr. Gauthier is senior vice president and chief operating officer at Kruger Inc., a private energy company taking a leadership role in respecting the environment and embodying the principle of sustainable energy development. He was nominated by the Government of Canada (VANOC, 2008).
Barrett Fisher	Has been President of Tourism Whistler since June 2003. Well-versed in all aspects of marketing, she brings to her position almost 20 years of tourism experience and is responsible for the worldwide marketing of the renowned resort destination. Fisher holds a bachelor of arts

	<p>degree in English from the University of British Columbia; a diploma in journalism from Vancouver Community College and a diploma in marketing from the Kellogg School of Management at Northwestern University. She was Nominated by the Resort Municipality of Whistler (VANOC, 2008).</p>
Ken Dobell	<p>Ken Dobell served as deputy minister to the Premier and cabinet secretary, Office of the Premier, Government of British Columbia of British Columbia from June 2001 to June 2005. He continues to serve as a special advisor to the Premier on a consulting basis. Dobell graduated from the University of British Columbia with a bachelor of science in 1964. He studied in England for three years on an Athlone Fellowship and holds a master of science in Operations Research from the University of Birmingham. He was nominated by the Province of British Columbia (VANOC, 2008).</p>
Richard Pound	<p>Pound is a senior partner of Stikeman Elliott LLP, where he specializes in tax law. He also serves as Chancellor of McGill University, previously serving as Chair of its Board of Governors. Mr. Pound is a lawyer and chartered accountant by training, and was educated at McGill University and Sir George Williams University (now Concordia University). He holds honorary degrees from Laurentian University and the Universities of Western Ontario and Windsor, and in 2004 was appointed a Chubb Fellow of Timothy Dwight College at Yale University. Pound was nominated by the Canadian Olympic</p>

	Committee (VANOC, 2008).
Jack Poole	<p>The VANOC Chairman co-founded the Daon Development Corporation which was formed to build housing in resource towns, the company grew to become the second largest real estate development and investment company in North America. In 1989, Poole co-founded VLC Properties (now known as Concert Properties) He continues to chair Concert's Board of Directors. Today, he is a partner and/or owner of a variety of businesses, ranging from marinas and golf courses to automobile dealerships and shopping centers. Poole was nominated by the Vancouver 2010 Board and graduated from the University of Saskatchewan with a bachelor of science in civil engineering (VANOC, 2008).</p>

14 Reference List

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