In the Matter of an Arbitration
Under Chapter Eleven of the North American Free Trade Agreement

between:

William Ralph Clayton, William Richard Clayton, Douglas Clayton, Daniel Clayton and Bilcon of Delaware, Inc

Claimants

and:

Government of Canada

Respondent

Expert Report of
Robert G. Connelly
Connelly Environmental Assessment Consulting, Inc

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1. My name is Robert Connelly and I am currently the President of Connelly Environmental Assessment Consulting Inc. I reside at 706 Kilmar Crescent, Kanata, Ontario. I have been engaged by Canada's Department of Foreign Affairs and International Trade to prepare this report on environmental assessment in Canada and the development, implementation and operation of the *Canadian Environmental Assessment Act* (the "Act").

2. In section 1.0 of this report, I provide information on my background and qualifications. In section 2.0, I provide an overview of the evolution of environmental assessment in Canada from its beginnings in 1974 to the promulgation of the Act in 1995. In section 3.0, I explain the operation of the relevant provisions of the Act that I understand were in force at the time of the environmental assessment of the Whites Point project.[1] I also provide some comments on amendments to the Act that came into force on October 30, 2003 and that were applicable to environmental assessments of projects initiated after that date. Finally, in section 4.0, I provide an overview of the joint review panel process.

1.0 Background and Qualifications

3. I have broad experience in environmental issues, primarily in the area of environmental assessment. I received a B.A.Sc. in civil engineering from the University of Waterloo in 1970 where my studies focussed on environmental engineering. Both as a student, and initially after my graduation, I worked for a consulting engineering company involved in the design and construction of infrastructure projects. I left this consulting firm and joined the Canadian federal government in late 1970.

4. I was transferred to the newly created Department of Environment in Winnipeg in 1971. I first became involved in environmental assessment in 1974 when I provided advice to Transport Canada on the potential environmental effects of Manitoba Hydro's plans for the construction of hydro-electric dams on the Churchill and Nelson rivers in northern Manitoba.

[1] *Canadian Environmental Assessment Act*, S.C. 1992, c. 37 (the version of the Act that existed before October 30, 2003), **Exhibit R-1**.

5. In 1975, I joined the United Nations Economic Commission for Europe Secretariat in Geneva as an Environmental Affairs Officer. Here, I drafted background documents for international meetings on a variety of environmental issues, including environmental assessment.

6. In 1978, I re-joined the Canadian government, this time with the Federal Environmental Assessment Review Office in Ottawa. In this position, I served as the panel manager of three and the chair of six environmental assessment review panels from 1978 to 1993. I also organized and conducted Canada-wide consultations in 1987 on improving federal environmental assessment, a process that ultimately led to the enactment of the Act in 1995.

7. In December 1993, prior to the enactment of the Act, I was appointed Vice President, Policy with the soon to be created Canadian Environmental Assessment Agency (the "Agency"). As Vice President, Policy I was responsible for the introduction of the first amendments to the Act before its proclamation in 1995.[2] I was also responsible for the preparation of key regulations required to make the Act operational before it could enter into force.

8. During my tenure as Vice President, Policy at the Agency, I served as the federal lead in the development of the *Sub-agreement on Environmental Assessment* signed by federal, provincial and territorial governments in 1998. Since 1998, the Sub-Agreement has provided the framework for federal-provincial cooperation on environmental assessment. I also led the preparation of a number of federal-provincial bi-lateral agreements that resulted in various joint review panels throughout the country.

9. I was also the lead official on consultations regarding the mandatory review of the Act after its first five years and I developed proposed amendments to the Act in 2003. As part of the amendment process, I appeared before the House of Commons Environment and Sustainable Development Committee, and the Senate Energy, Environment and Natural Resources Committee, to explain and respond to questions about the proposed amendments.

[2] The Act was given Royal Assent in June 1992 under the tenure of a Progressive Conservative government. During the election campaign of 1993, the Liberal party platform included proposed changes to the Act. Subsequently, with the election of a Liberal government, amendments to the Act were introduced in Parliament and given Royal Assent in December 1994.

10. In November of 2003, I was appointed Acting President of the Agency. I was confirmed in this position by the Governor in Council in March 2004. I served in that role for 17 months until shortly before my retirement from the federal government in July 2005.

11. In addition to my work in Canada on environmental assessment, I have also chaired the United Nations Working Group that developed the *Convention on Environmental Impact Assessment in a Transboundary Context*, completed in 1991. I also represented Canada at international meetings dealing with environmental assessment at the Economic Commission for Europe, the Organization for Economic Cooperation and Development and the North American Commission for Environmental Cooperation.

12. In 2005, after 35 years of public service, I retired from the Government of Canada. In 2006, I established Connelly Environmental Assessment Consulting, Inc. I have worked as a consultant in the area of environmental assessment ever since. My clients have included various federal departments, Ontario Power Generation and the Forum of Federations, an international non-governmental organization. I have also served as the chair of two review panels established under the Act: a joint review of a natural gas development (Encana Shallow Gas Infill Development Project, Canadian Forces Base Suffield National Wildlife Area, Alberta) and a federal review of a mine development (Prosperity Gold-Copper Mine Project, Taseko Mines Ltd, British Columbia), completed in 2009 and 2010 respectively.

13. Over the course of my career, I have delivered presentations on a wide range of environmental assessment topics at conferences, seminars and meetings in Canada and abroad. In 2006, the International Association for Impact Assessment presented me with the Rose Hulman award in recognition of my contribution to and leadership in environmental assessment within Canada and internationally.

14. My curriculum vitae is attached as Annex I to this Report. The opinions expressed here are my own.

2.0 The Evolution of Environmental Assessment in Canada

15. In this section, I provide background information on the evolution of the environmental assessment process in Canada. In particular, I explain the meaning of the term

environmental assessment, the division of powers between Canada's federal and provincial governments with respect to the regulation of the environment, and the evolution of the federal approach to environmental assessment up until the creation of the Act.

2.1 The meaning of environmental assessment in Canada

16. Environmental assessment[3] is a process used to identify and gather information about the expected future consequences of a proposed project before a decision is made as to whether it should proceed. It involves consideration of biophysical factors as well as social, cultural and aesthetic factors. It relies on tools found in the physical, social and natural sciences to predict the effects of a proposed project and considers the knowledge of potentially affected citizens and the values they place on the existing environment. It is now generally recognized as a key part of the system of environmental management in Canada.[4]

17. In *Friends of the Oldman River Society v. Canada (Minister of Transport),* the first major judicial decision on environmental assessment in Canada, the Supreme Court of Canada described environmental assessment as:

> a planning tool that is now generally regarded as an integral component of sound decision making... As a planning tool it has both an information gathering and a decision making component which provide the decision maker with an objective basis for granting or denying approval for a proposed development.[5]

18. Similarly, the International Association for Impact Assessment (IAIA), the leading global network on best practices in using impact assessment for informed decision making, defines environmental assessment as "the process of identifying, predicting, evaluating and

[3] The term environmental assessment is often used interchangeably with environmental impact assessment. Canada and some other countries (e.g. Australia) use the term environmental assessment to describe its process. Others such as the European Union use the term environmental impact assessment.

[4] Hanna, Kevin S, Environmental Impact Assessment: Process, Setting, and Efficacy. In Hanna, Kevin S. (Ed.), *Environmental Impact Assessment, Practice and Participation*, 2009, Oxford University Press, Chapter 1, Page 4: "Since the 1980s, EIA [environmental impact assessment] has quietly evolved into one of the more consistent and unquestionably powerful instruments for environmental management in Canada. It now informs virtually all public project and program development at the federal and provincial level, and in some Canadian jurisdictions, major private-sector undertakings have also been subject to it", **Exhibit R-2.**

[5] *Friends of the Oldman River Society v. Canada (Minister of Transport),* [1992] 1 S.C.R. 3, Page 79, **Exhibit R-3.**

mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made".[6]

19. The broad objectives served by environmental assessment go beyond simply predicting the effects of a proposed project and determining whether it should be allowed to proceed. The IAIA has described the broad objectives of environmental assessment as follows:

- providing information for decision-making that analyzes the biophysical, social, economic, and institutional consequences of proposed actions;
- promoting transparency and the participation of the public in decision-making;
- identifying procedures and methods for the follow-up (monitoring and mitigation of adverse consequences) in policy, planning and project cycles; and
- contributing to environmentally sound and sustainable development.[7]

2.2 Shared Provincial and Federal Regulatory Authority for Environmental Issues

20. Canada is a federation, and its constitution is silent on the subject of which level of government has authority over the environment. Consequently, as explained by the Supreme Court in its 1992 decision in the Oldman River dam case, environmental assessment is a matter of shared responsibility between the federal and provincial governments. The Supreme Court wrote:

> The "environment" is not an independent matter of legislation under the *Constitution Act, 1867*. Understood in its generic sense, it encompasses the physical, economic and social environment and touches upon several of the heads of power assigned to the respective levels of government. While both levels may act in relation to the environment, the exercise of legislative power affecting environmental concerns must be linked to an appropriate head of power. Local projects will generally fall within provincial responsibility, but federal participation will be required if, as in this case, the project impinges on an area of federal jurisdiction.[8] (emphasis added)

[6] International Association for Impact Assessment, http://www.iaia.org/publicdocuments/special-publications/What%20is%20IA_web.pdf, Page 1, **Exhibit R-4**.

[7] *ibid*.

[8] *Friends of the Oldman River Society v. Canada (Minister of Transport)*, [1992] 1 S.C.R. 3, Page 9, **Exhibit R-3**.

21. Beginning with Ontario in 1975, all provinces and territories in Canada have created environmental assessment regimes, whether through legislation, regulation under a provincial environmental statute, or in the case of Canada's northern territories, land claims agreements with First Nations.[9] Nova Scotia's current environmental assessment regime was established through the enactment of the Nova Scotia *Environment Act*[10] and the Nova Scotia *Environmental Assessment Regulations* in 1995.[11] It is my understanding that the Nova Scotia regime is described in the witness statement of Chris Daly.

2.3 The Evolution of Environmental Assessment in Canada at the Federal Level

22. At the federal level, steps were taken to create an environmental assessment regime in Canada shortly after the Department of the Environment was formed in 1971. There were three major milestones in the creation of Canada's environmental assessment regime. These are:

- the issuance of the Cabinet Directives in 1973 and 1977;
- the issuance of the *Environmental Assessment and Review Process Guidelines Order* in 1984; and
- the proclamation of the *Canadian Environmental Assessment Act* in 1995.

Below I provide a brief overview of each of these milestones. In addition, in Annex II, I have provided a more detailed chronology of key developments in Canada's environmental assessment regime.

[9] Land claims agreements are modern day treaties between Canada and Aboriginal groups and address matters such as land ownership, money and environmental management, including environmental assessment.

[10] Nova Scotia *Environment Act*, 1994-95, c.1, s.1, **Exhibit R-5**.

[11] Nova Scotia *Environmental Assessment Regulations* (made under Section 49 of the *Environment Act*, S.N.S. 1994-1995, c.1), O.I.C. 95-220, N.S. Reg. 26/95 as amended up to O.I.C. 2003-67, N.S. Reg. 44/2003, February 28, 2003, **Exhibit R-6**.

2.3.1 The Cabinet Directives of 1973 and 1977

23. In 1973 the federal government issued a Cabinet Directive[12] requiring an environmental assessment and review process for federal government projects. The process allowed for public participation[13] and recognized the need for cooperation with provinces and territories.[14] Under the 1973 Cabinet Directive the process was to be run by an Environmental Assessment Panel consisting of qualified personnel from within the federal Department of Environment.[15]

24. A second Cabinet Directive was issued in 1977. The most important change was provision for the creation of environmental assessment panels having greater independence from the government that they would advise. The 1977 Directive allowed the appointment of panel members from outside government.[16]

2.3.2 The Environmental Assessment and Review Process Guidelines Order

25. The next major milestone in the evolution of Canada's environmental assessment regime came in June 1984, with the issuance of the *Environmental Assessment and Review Process Guidelines Order*.[17]

26. The *Guidelines Order* introduced a number of changes and new features to the federal environmental assessment process, including: a wider scope of application under which an environmental assessment was required for any proposal having an environmental effect on an area of federal responsibility;[18] referral of a proposal to public review by a review panel

[12] Federal Environmental Assessment Review Office, *Detailed Outline of Contents of the Cabinet Memoranda Establishing the Federal Environmental Assessment and Review Process*, April 1, 1978, December 18, 1973 Cabinet Directive, **Exhibit R-7**. A Cabinet Directive is issued by Ministers to departments and agencies of the federal government and, though it cannot be enforced by the Court, it requires that they follow its edict.

[13] *ibid*, Para 5(b)(vi).

[14] *ibid*, Para 3(d).

[15] *ibid*, Para 3(a) and (b).

[16] Federal Environmental Assessment Review Office, *Detailed Outline of Contents of the Cabinet Memoranda Establishing the Federal Environmental Assessment and Review Process*, April 1, 1978, February 8th, 1977 Cabinet Directive, Para 1(b), **Exhibit R-7**.

[17] *Environmental Assessment and Review Process Guidelines Order*, SOR/84-467, **Exhibit R-8**.

[18] *ibid*, s. 3.

if the proposal had the potential for significant adverse effects or where public concern was such that a public review was desirable;[19] and, the concept of joint federal-provincial review panels.[20]

27. Although the *Guidelines Order* was written in mandatory language, federal departments considered it to be a guideline only. This changed in 1989 when the Federal Court of Canada ruled in the matter of the proposed Rafferty Alameda dam in Saskatchewan that the federal government had a legal obligation to apply the *Guidelines Order*.[21] Less than three years later, in the Oldman River dam case, the Supreme Court of Canada confirmed that the *Guidelines Order* imposed a legal obligation on the federal government to conduct an environmental assessment before the issuance of certain licences, permits or approvals.[22]

2.3.3 The Creation of the *Canadian Environmental Assessment Act*

28. The next major milestone in Canada's environmental assessment regime was the creation of the *Canadian Environmental Assessment Act* itself.

29. The proposed Act was tabled in Parliament in June 1990. It was to serve as framework legislation, setting out the principles of environmental assessment in Canada, the responsibilities for the operation of the Act and the fundamental workings of the environmental assessment process. The Act was developed in conjunction with four key regulations[23] which defined the regulatory decisions that would trigger the application of the Act and the types of projects that would be subject to the Act. The Governor in Council

[19] *ibid*, ss. 12(e), 13.

[20] *ibid*, ss. 32, 35(c).

[21] *Canadian Wildlife Federation Inc. v. Saskatchewan Water Corp.*, [1989] F.C.J. No. 530, Pages 2-3, **Exhibit R-9**.

[22] *Friends of the Oldman River Society v. Canada (Minister of Transport)*, [1992] 1 S.C.R. 3, Pages 5-6, **Exhibit R-3**.

[23] *Consolidated Regulations Under the Canadian Environmental Assessment Act*, **Exhibit R-10**. The four key regulations were: the *Law List Regulations*, SOR/94-636; the *Inclusion List Regulations*, SOR/94/637; the *Comprehensive Study List Regulations*, SOR/94/638; and the *Exclusion List Regulations*, SOR/94/639. These regulations were amended in 1999. **Exhibit R-10** contains the regulations that applied at the time of the commencement of the environmental assessment of the Whites Point project. The 1999 amendments are shown in bold in the text.

issued these four key regulations on October 7, 1994. The Act was proclaimed into force on January 19, 1995.

3.0 The Application and Operation of the *Canadian Environmental Assessment Act*

30. In this section, I provide an overview of the application and operation of the Act that I understand was in force at the time of the environmental assessment of the Whites Point project.[24] In particular, I explain: the purposes of the Act; the application of the Act to a project; the scope of the project to be assessed under the Act; the types of environmental assessment under the Act (screening, comprehensive study, and assessment by a review panel); the factors considered in an environmental assessment; and the decisions to be made by the government following an environmental assessment.

31. For ease of reference my discussion of the Act below has been cast in the present tense. However, it should be noted that a number of provisions that I discuss below have undergone amendment. I describe some of these amendments in section 3.4.4.

3.1 The Purposes of the Act

32. The fundamental principles upon which the Act is based are set out in its Preamble, (Table 1), and include among others, achieving sustainable development, anticipating and preventing the degradation of environmental

Table 1: Preamble

(a) Whereas the Government of Canada seeks to achieve sustainable development... by encouraging and promoting economic development that conserves and enhances environmental quality;
(b) Whereas environmental assessment provides an effective means of integrating environmental factors into planning and decision-making process in a manner that promotes sustainable development;
(c) Whereas the Government of Canada is committed to... ensuring that economic development is compatible with the high value Canadians place on environmental quality; and
(d) Whereas the Government of Canada is committed to facilitating public participation in the environmental assessment of projects to be carried out by or with the approval or assistance of the Government of Canada and providing access to the information on which those environmental assessments are based.

[24] The Act underwent significant amendments on October 30, 2003. A transitional clause to these amendments provided that any environmental assessment commenced before the October 30, 2003 amendments came into force was to continue under the previous regime. As I understand the pre-October 30, 2003 Act was therefore applicable to the environmental assessment of the Whites Point project, I have included this version of the Act in its entirety as **Exhibit R-1**.

quality, ensuring that economic development is compatible with the high value Canadians place on environmental quality, and facilitating public participation in the environmental assessment process.

33. These principles are further reflected in s. 4 of the Act (Table 2) which sets out the Act's purposes as, among others, ensuring that environmental effects of projects receive careful consideration before decisions are taken, encouraging sustainable development, eliminating unnecessary duplication and ensuring an opportunity for public participation.

Table 2: Purposes

4. (a) to ensure that the environmental effects of projects receive careful consideration before responsible authorities take actions in connection with them;
(b) to encourage responsible authorities to take actions that promote sustainable development and thereby achieve or maintain a healthy environment and a healthy economy;
(b.1) to ensure that responsible authorities carry out their responsibilities in a coordinated manner with a view to eliminating unnecessary duplication in the environmental assessment process:
(c) to ensure that projects that are to be carried out in Canada or on federal lands do not cause significant adverse environmental effects outside the jurisdictions in which the projects are carried out; and
(d) to ensure that there be an opportunity for public participation in the environmental assessment process.

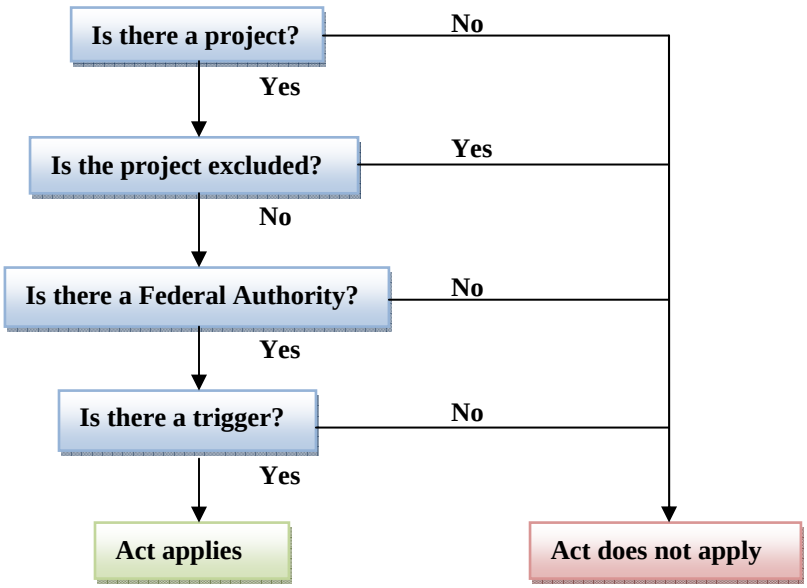
3.2 The Application of the Act to a Proposed Project

34. As illustrated in Figure 1[25] below, the determination that the Act applies to a proposed project requires an answer to each of the following four questions:

- Is there a project?
- Is the project excluded from the Act?
- Is there a federal authority with responsibilities for the proposed project?
- Do these responsibilities include powers or decision-making authority (often referred to as a "trigger") requiring an environmental assessment under the Act?

[25] Canadian Environmental Assessment Agency, *How to Determine if the Act Applies*, May 2007, Page 8, **Exhibit R-11**. Although this guidance document was updated in 2007, this Figure is applicable to the Act as it existed before October 30, 2003. However, please note that Part 3 of this document "What Type of Environmental Assessment is Required?", reflects the October 30, 2003 amendments to the Act and hence is not applicable to the Whites Point environmental assessment.

Figure 1: Determining if the Act Applies



3.2.1 Is There a Project?

35. For the Act to apply, the proposed development must be a "project" as this term is defined under s. 2(1) of the Act (Table 3). That section defines a project as one of two things. First, it defines a project as: (a) any construction, operation, modification, decommissioning, abandonment or other undertaking in relation to a physical work. The Agency considers a physical work to be something that has been or will be constructed (human-made) and that has a fixed location.[26] Relevant examples would include a wharf, building, road or a mine. Second, the Act defines a project as: (b) any proposed physical activity not relating to a physical work that has been prescribed as a "project" by regulation. In practice these physical activities are listed in the

Table 3: Definition of Project

project means:
(a) in relation to a physical work, any proposed construction, operation, modification, decommissioning, abandonment or other undertaking in relation to that physical work, or
(b) any proposed physical activity not relating to a physical work that is prescribed or is within a class of physical activities that is prescribed pursuant to regulations made under paragraph 59 (b).

[26] *ibid*, Page 10.

Inclusion List Regulations and include activities such as culling of wildlife in a National Park, low-level military flying, and dredging.[27]

3.2.2 Is the Project Excluded?

36. Once it has been determined that there is a "project" for the purposes of the Act, the next step is to determine if the project is excluded from the Act. Excluded projects are projects carried out in response to certain types of emergencies, or projects listed in the *Exclusion List Regulations.* In practice, most excluded projects are those that have been pre-determined to have insignificant environmental effects and are listed in the *Exclusion List Regulations.*

3.2.3 Is There a Federal Authority?

37. If the project is not excluded, the next step is to determine if there is a federal authority with some responsibility associated with the project. Federal authorities are defined in s. 2(1) of the Act as: a Minister of the Crown; a federal Agency (e.g., Canadian Transportation Agency); a federal department (e.g., Department of Fisheries and Oceans); and, a body prescribed by regulations (e.g., Canada-Nova Scotia Offshore Petroleum Board).

3.2.4 Is There a Trigger?

38. Finally, if there is a federal authority with responsibilities associated with the non-excluded project, the next step is to determine if that federal authority is considering the exercise of a prescribed power or the performance of a prescribed duty or function. If so, then the Act applies to the project and the project is subject to an environmental assessment. The relevant prescribed powers, duties and functions are listed in s. 5(1) of the Act (Table 4) and are often referred to as "triggers".

[27] *Inclusion List Regulations*, Schedule, s. 5, s. 28 and s. 36 respectively, **Exhibit R-10**.

Table 4: Projects to be Assessed (the "triggers")

5. (1) An environmental assessment of a project is required before a federal authority exercises one of the following powers or performs one of the following duties or functions in respect of a project, namely, where a federal authority

(a) is the proponent of the project and does any act or thing that commits the federal authority to carrying out the project in whole or in part;

(b) makes or authorizes payments or provides a guarantee for a loan or any other form of financial assistance to the proponent for the purpose of enabling the project to be carried out in whole or in part, except where the financial assistance is in the form of any reduction, avoidance, deferral, removal, refund, remission or other form of relief from the payment of any tax, duty or impost imposed under any Act of Parliament, unless that financial assistance is provided for the purpose of enabling an individual project specifically named in the Act, regulation or order that provides the relief to be carried out;

(c) has the administration of federal lands and sells, leases or otherwise disposes of those lands or any interests in those lands, or transfers the administration and control of those lands or interests to Her Majesty in right of a province, for the purpose of enabling the project to be carried out in whole or in part; or

(d) under a provision prescribed pursuant to paragraph 59(*f*), issues a permit or licence, grants an approval or takes any other action for the purpose of enabling the project to be carried out in whole or in part.

39. Paragraph 5(1)(d) of the Act, which applies when a federal authority is considering issuance of a permit or licence, granting an approval, or taking any other action for the purpose of enabling the project to be carried out in whole or in part, is a frequent trigger for an environmental assessment. Paragraph 5(1)(d) makes reference to s. 59(f) of the Act which allows the Governor in Council to issue regulations known as the *Law List Regulations*. The *Law List Regulations* list the provisions of any Act or regulation which, pursuant to s. 5(1)(d), require the completion of an environmental assessment before a permit, license or approval can be issued or granted in accordance with the listed provision for the purpose of enabling a project to be carried out in whole or in part.

40. The following example illustrates the operation of s. 5(1)(d): an industrial project encroaching upon the marine environment may have an effect on fish or fish habitat, requiring authorization from the Department of Fisheries and Oceans for "the killing of fish by means other than fishing" or "the harmful alteration, disruption or destruction of fish

habitat", respectively s. 32 and s. 35(2) of the *Fisheries Act.*[28] As s. 32 and s. 35(2) of the *Fisheries Act* are listed in the *Law List Regulations*,[29] an environmental assessment of the proposed project must be completed before an authorization can be issued under s. 32 or s. 35(2) for the purposes of allowing the project to be carried out in whole or in part. Likewise, at the time of the Whites Point environmental assessment, s. 5(1)(a) of the *Navigable Waters Protection Act*,[30] provided that "[n]o work shall be built or placed in, on, over, under, through, or across any navigable water" unless the work and the site plans are approved by the Minister.[31] This provision is also a trigger for an environmental assessment as it is listed in the *Law List Regulations*.[32]

41. A federal authority with a trigger is responsible for ensuring that an environmental assessment is conducted before it can exercise any of the powers or perform any of the functions or duties included in s. 5(1). Such a federal authority is referred to as a "responsible authority" under the Act.[33] As there is often more than one responsible authority for an environmental assessment, the *Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures and Requirements*[34] set out procedures to ensure coordination amongst federal authorities throughout the environmental assessment. Once a federal authority receives a project description it must determine if it is likely to require an environmental assessment of the project, and, if so, notify other federal authorities to determine if they too are likely to require an environmental assessment of the

[28] R.S., 1985, c. F-14: Section 32 of the *Fisheries Act* provides that "No person shall destroy fish by any means other than fishing except as authorized by the Minister or under regulations made by the Governor in Council." Subsection 35(2) requires authorization "by the Minister or under regulations made by the Governor in Council" in order to "carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat" (often referred to as a HADD authorization).

[29] *Law List Regulations*, Part 1, items 6(d) and (e), Page 3, **Exhibit R-10**.

[30] R.S., 1985, c. N-22.

[31] Note that while the Department of Fisheries and Oceans administered the *Navigable Waters Protection Act* at the time the Whites Point environmental assessment was commenced, the administration of this Act has since been transferred to the Department of Transport.

[32] *Law List Regulations*, Part 1, item 11(a), Page 4, **Exhibit R-10**.

[33] See definition of "responsible authority" in s. 2(1) of the Act. See also s. 11(1) of the Act.

[34] *Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures and Requirements*, SOR/97-181, **Exhibit R-12**.

project or are in possession of specialist or expert information or knowledge that is necessary to conduct the environmental assessment. Once it has been determined which federal authorities are responsible authorities, the regulations require consultation with other federal authorities on matters such as the "scope of project", a topic I discuss in the next section of this Report.

3.3 The "Scope of Project"

42. Once it has been determined that the Act applies to at least a part of a proposed project, a determination must be made about the "scope of project" to be assessed. The phrase "scope of project" refers to the components of a project or projects that are to be included in the environmental assessment and can include components in addition to those that triggered the Act. Doelle notes the importance of distinguishing between the determination of whether the Act applies and the determination of "scope of project":

> It is important to distinguish what physical work or *Inclusion List* physical activity triggered CEAA [the Act] from what is the scope of the project for the purposes of environmental assessment. The triggering process takes a minimalist approach. The focus is on what is required for the Act to apply. It generally only requires an undertaking in relation to a physical work, or any activity on the inclusion list that involves a section 5 decision by a federal authority to trigger the Act. The role of the scope of project determination is to make the transition from identifying an undertaking or physical activity sufficient to trigger an assessment to determining how the project should be defined for assessment purposes. Other than the undertaking or physical activity that triggered the assessment, what should be included as part of the project to be assessed? [35] (emphasis added)

43. Section 15 of the Act (Table 5) sets out the rules applicable to determining the "scope of project". Subsection 15(1) of the Act specifies that the "scope of project" determination is made by the responsible authority, or in the case of a project referred to a review panel, by the Minister of the Environment. Subsection 15(1) also allows for components of the project other than those which triggered the Act to be included in the scope of project.

44. Subsection 15(2) provides that where two or more projects are so closely related they can be considered to form a single project for the purposes of conducting an environmental

[35] Doelle, Meinhard, *The Federal Environmental Assessment Process, A Guide and Critique*, 2008, LexisNexis, Pages 111-112, **Exhibit R-13**.

assessment. For example, in the case of the construction of a road and bridge, these two components are so closely related that they could be considered as one project under s. 15(2). Likewise, under s. 15(3), all undertakings (e.g. construction, operation, modification, decommissioning, abandonment) relating to a physical work proposed by the proponent must be included in the scope of a project if, in the opinion of the responsible authority or the Minister of the Environment, they are likely to be carried out in relation to the physical work. For example, in the case of the construction of a bridge (a physical work), dredging could be considered as an undertaking in relation to that physical work.

Table 5: Determining the "Scope of Project"

15 (1) The scope of the project in relation to which an environmental assessment is to be conducted shall be determined by

(a) the responsible authority; or

(b) where the project is referred to a mediator or a review panel, the Minister, after consulting with the responsible authority.

(2) For the purposes of conducting an environmental assessment in respect of two or more projects,

(a) the responsible authority, or

(b) where at least one of the projects is referred to a mediator or a review panel, the Minister, after consulting with the responsible authority,

may determine that the projects are so closely related that they can be considered to form a single project.

(3) Where a project is in relation to a physical work, an environmental assessment shall be conducted in respect of every construction, operation, modification, decommissioning, abandonment or other undertaking in relation to that physical work that is proposed by the proponent or that is, in the opinion of

(a) the responsible authority, or

(b) where the project is referred to a mediator or a review panel, the Minister, after consulting with the responsible authority,

likely to be carried out in relation to that physical work.

45. Scope of project determinations have been the subject of frequent litigation before the courts.[36] In 1998, the Agency issued an Operational Policy Statement[37] to provide policy guidance to responsible authorities on determining the scope of a project. The Operational

[36] One of these challenges (the TrueNorth case) was before the Federal Court at the time that the scope of project in the Whites Point environmental assessment was under consideration. I understand that an overview of these judicial challenges has been provided in the expert report of Laurie Smith filed on behalf of the Government of Canada.

[37] Canadian Environmental Assessment Agency, *Establishing the Scope of the Environmental Assessment*, OPS-EPO/1, 1998, **Exhibit R-14**.

Policy Statement noted that a decision on the scope of project must be made on a case-by-case basis. It outlined considerations to be taken into account in that determination, including:

- the proponent's project description;
- the purpose of the proposed project;
- other physical works that are inevitable or that are physically linked to the proposed project;
- the assessment of environmental effects of the project by other authorities; and
- the results of other review processes that have occurred or are occurring.

46. In 2010, the Supreme Court of Canada definitively clarified that under the Act, "the minimum scope is the project as proposed by the proponent".[38] The Supreme Court further clarified that the discretion afforded by s. 15 of the Act to the responsible authority or Minister of Environment to determine the scope of the project works only in one way – to enlarge the "scope of project" pursuant to s. 15(2) and s. 15(3) "in the appropriate circumstances".[39]

3.4 The Type of Assessment to be Applied to the Project

47. The initial determination of the type (or track) of assessment to which the project will be subjected may be made following the determination of, or simultaneously with, the "scope of project" decision. The Act provides for four different types of assessment: screenings, comprehensive studies, mediation and assessments by review panels, though in practice, mediation has never been used so I will not address it further here. The determination of the type of assessment is made on a case-by-case basis but is dependent on three factors: (1) whether the project is included in the *Comprehensive Study List*

[38] *MiningWatch Canada v. Canada (Fisheries and Oceans)*, SCC 2, [2010] 1 S.C.R. 6, Para 39, **Exhibit R-15**.

[39] *ibid.*

Regulations,[40] (2) the project's potential for "significant adverse environmental effects", and (3) the level of public concern associated with the project.[41]

48. With respect to the first factor, if the project to which the Act applies is listed in the *Comprehensive Study List Regulations* then at the very least a comprehensive study will be required. However, depending on the second and third factors it could still be referred to a review panel.

49. Regarding the second factor, an "environmental effect" is defined under the Act as "any change that the project may cause in the environment", including "any effect of any change [in the environment]" on health and socio-economic conditions, physical and cultural heritage, the use of lands by aboriginal persons and sites of archaeological importance.[42] I have described in more detail in section 3.5.3 the criteria used to assist in determining whether an "environmental effect" may be significant, adverse and likely to occur. These criteria are applied to the available preliminary information in determining whether a project may cause significant adverse environmental effects and should be referred to a review panel.

50. Consideration of the third factor, the level of public concern associated with the project, is consistent with the Act's preamble and purpose, which make clear that the Act is designed to provide a meaningful opportunity for public participation in the environmental assessment process. Public concern can be determined via correspondence and telephone calls to the Minister, local Members of Parliament, the Agency or the responsible authority;

[40] The *Comprehensive Study List Regulations*, contain a list of projects that have been predetermined to be "likely to have significant adverse environmental effects", as provided under s 59(d) of the Act, **Exhibit R-10**.

[41] With respect to the second and third factors, see **Exhibit R-1**: *Canadian Environmental Assessment Act*, S.C. 1992, c. 37, ss. 20(1)(c), 23(b), 25 and 28.

[42] *Canadian Environmental Assessment Act*, S.C. 1992, c. 37, s. 2(1), **Exhibit R-1**. "Environment" is also a defined term under the Act. "Environment" means "the components of the Earth, and includes … "land, water and air", "all organic and inorganic matter and living organisms" and "the interacting natural systems" that include these components.

media coverage; demonstrations or meetings about the project; formal intervention; and informal communication.[43]

51. A judgment on the level of public concern will influence a decision on whether an environmental assessment should:

i. commence as a screening or as a comprehensive study; or

ii. be referred directly to a review panel.

In this regard, the Agency's *Responsible Authority's Guide* provides that "[a]t any time before completion of the screening or comprehensive study -- or even before the EA [environmental assessment] begins -- the RA [Responsible Authority] can ask the Minister of the Environment to refer the project directly to a public [panel] review if it is clear that public concerns about the project's environmental effects are unlikely to be adequately addressed in a self-directed EA".[44]

52. At the stage when the initial type of assessment decision is being made, the information that the government has with respect to the second and third factors, potential significant adverse environmental effects and the level of public concern associated with a proposed project, is necessarily incomplete. As noted by the Supreme Court of Canada in the Oldman River dam case, the environmental assessment process that ensues after the type of assessment decision is made serves the purpose of gathering the relevant information that will provide the decision-maker with an objective basis for ultimately granting or denying approval of a proposed project. As a result, when making a decision on the type of assessment, only a preliminary determination can be made, on the basis of the information available to governmental authorities at that time, that significant adverse environmental effects may arise as a result of the project, or that public concern exists over the project being proposed. This preliminary determination is then used to inform the type of assessment to which a project is subject. As further information is learned during the

[43] Canadian Environmental Assessment Agency, *Responsible Authority's Guide: The Practitioner's Guide*, 1994, s. 1.1.3, Page 48, **Exhibit R-16**.

[44] *ibid*, s. 1.3.4, Page 64.

environmental assessment process, the Act also allows a project that was commenced as a screening or comprehensive study to be referred to a review panel at any time.

53. I now address the three types of assessment under the Act - screening, comprehensive study and review panel.

3.4.1 Screening

54. A screening is a documented assessment of the possible environmental effects of a project. Under s. 18 of the Act, the responsible authority must ensure that a screening assessment is conducted for any project that is subject to the Act but not subject to assessment as a comprehensive study or a review panel. As a result, this type of assessment applies to the vast majority of projects subject to the Act.

55. In a screening, the responsible authority determines the scope of project, and the factors to be considered in the scope of the assessment. The results of the environmental assessment are described in a screening report. The level of detail involved in a screening report can vary considerably depending on the complexity of a project, its surrounding environment, and its potential environmental effects. In some cases, a screening report may be quite brief, based on readily available information. In others, the screening report may involve gathering considerable site-specific baseline data.

56. The responsible authority can delegate the preparation of a screening report to a proponent, but must ensure there is adequate information in the report to allow for a decision by the government to be made regarding the project. If upon review of the screening report, the responsible authority determines that the information it has is sufficient to allow it to make a decision, it will proceed to do so, as described below in section 3.6. However, if after reviewing the screening report, the responsible authority determines that the project is likely to cause significant adverse environmental effects that could be justified in the circumstances, or that the likelihood of the project causing significant adverse environmental effects is uncertain, or it determines that public concerns warrant, it must defer its decision and instead refer the project to the Minister of the

Environment for referral to a review panel that will conduct its own environmental assessment of the project.[45]

57. As projects subject to screenings do not generally attract significant public concern (relative to those subject to a comprehensive study or a panel review), s. 18(3) of the Act provides that public involvement in the screening process is not mandatory, though it can be permitted in appropriate circumstances.

3.4.2 Comprehensive Study

58. A comprehensive study is a documented assessment of the environmental effects of a project that is required under s. 21 of the Act when the project is listed in the *Comprehensive Study List Regulations*. These types of projects have demonstrated that they are likely to have significant adverse environmental effects no matter where they are located. They also tend to be relatively larger projects capable of generating considerable public concern.

59. Of relevance to the Whites Point project, the *Comprehensive Study List Regulations* provide that the following projects, among others, are subject to a comprehensive study:

- A stone quarry or gravel or sand pit with a production capacity of 1,000,000 t/a or more.[46]
- A marine terminal designed to handle vessels larger than 25,000 DWT unless the terminal is located on lands that are routinely and have been historically used as a marine terminal or that are designated for such use in a land-use plan that has been the subject of public consultation.[47]

60. In a comprehensive study, the responsible authority determines the scope of project and the factors to be considered in the assessment. The results of this type of assessment are described in a comprehensive study report. A comprehensive study report typically contains considerable site specific information on the environmental components in the project area, and presents the proponent's findings on how the proposed project might

[45] *Canadian Environmental Assessment Act*, S.C. 1992, c. 37, s. 20(1)(c), **Exhibit R-1**.

[46] *Comprehensive Study List Regulations*, Schedule, s. 18(i), **Exhibit R-10**.

[47] *ibid*, s. 28(c).

affect those components. It also describes the results of the assessment, and contains a conclusion on the significance of the environmental effects of a project.

61. The responsible authority may prepare the comprehensive study report itself or delegate the preparation of the report to the proponent. In practice, most comprehensive study reports are prepared by proponents, though the responsible authority must ensure the report is completed in accordance with the Act. When a comprehensive study report is completed, the responsible authority provides it to the Minister of the Environment and to the Agency for decision-making along with the responsible authority's evaluation and recommendation. As with a screening, if upon review of the comprehensive study report, the Minister of the Environment determines that the information provided is sufficient to allow for a decision to be made, he or she will proceed to do so, as described below in section 3.6. However, if after review of the report, the Minister determines that the project is likely to cause significant adverse environmental effects that could be justified in the circumstances, or that the likelihood of the project causing significant adverse environmental effects is uncertain, or determines that public concerns warrant, the Minister must defer the decision and instead refer the project to a review panel that will conduct its own environmental assessment of the project.[48]

62. As projects subject to comprehensive study are more likely to give rise to public concern (relative to those not listed in the *Comprehensive Study List Regulations*), the Act, as it was applied at the time of the environmental assessment of the Whites Point project, provides for some public involvement in the comprehensive study process. In particular, s. 22 provides that, after receiving a comprehensive study report for a project, the Agency shall notify the public as to when and where copies of the report may be obtained and the deadline for filing comments on the report. However, the Act does not provide for public participation during the scoping of the project or the scoping of the factors to be considered in the assessment, and there is no funding available to assist the public in providing comments.

[48] *Canadian Environmental Assessment Act*, S.C. 1992, c. 37, s. 23(b), **Exhibit R-1**.

3.4.3 Review Panel

63. A review panel involves the appointment by the Minister of the Environment, in consultation with the responsible authority, of a group of persons to conduct an independent review of a project by way of public hearing.[49] These panels operate autonomously from the government once they are established. In particular, they are not directed or controlled by government officials,[50] are not subject to the same legislative obligations,[51] and do not have direct access to the federal Department of Justice legal advice which is available to government officials. The panellists must be unbiased and free of any conflict of interest relative to a proponent and a project and have knowledge or experience relevant to the anticipated environmental effects of a project.[52]

64. As shown in Figure 2, and as I have explained, the Act prescribes a number of ways for a project to be referred to a review panel and several points in the environmental process at which such a referral can be made.[53] In addition to referral to a review panel after the completion of a screening or comprehensive study, as described above, a project may also be referred to a review panel under various other provisions of the Act if either the responsible authority or the Minister of the Environment is of the opinion that a project may cause significant adverse environmental effects or that public concerns warrant referral.[54]

[49] *ibid*, s. 33(1).

[50] Government departments and agencies are often asked by review panels to make presentations on areas within their expertise, but such opinions are not binding on the review panel, which is free to evaluate all of the evidence presented when making its recommendations.

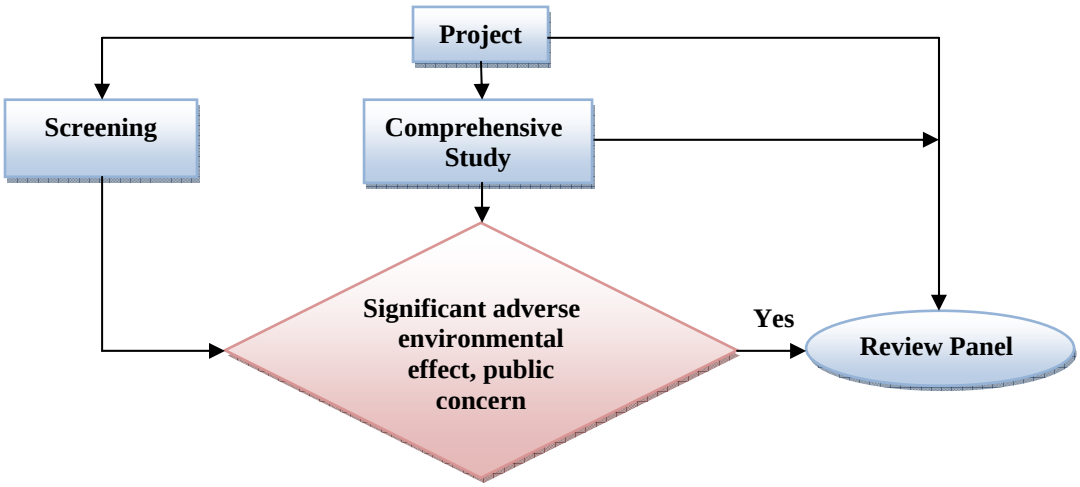
[51] Canadian Environmental Assessment Agency, *Your Role in an Assessment by a Review Panel: A Guide for Chairpersons and Members*, July 2001, Page 13: for example, "Panel members' personal notes, taken during the course of the panel review (including during deliberations), are not subject to disclosure under the *Access to Information Act* and the *Privacy Act*", **Exhibit R-32**.

[52] *Canadian Environmental Assessment Act*, S.C. 1992, c. 37, s. 33(1) (a)(i), **Exhibit R-1**.

[53] Note that the Act also authorizes the Minister of the Environment to refer a project to a review panel under certain circumstances involving transboundary effects (ss. 46 to 48 of the Act). Since these clauses are not relevant to the Whites Point project, they are not discussed in this Report.

[54] *Canadian Environmental Assessment Act*, S.C. 1992, c. 37, s. 21(b), s. 25 and s. 28, **Exhibit R-1**. Note that while s. 21(b) does not list these two reasons for referral to a review panel, in practice a referral under s. 21(b) would be based on likely significant adverse environmental effects or public concern.

Figure 2: Pathways to a Review Panel



65. In referring a project to a review panel, the Minister of the Environment establishes the terms of reference[55] (in consultation with the responsible authority), and it is these terms of reference which set the "scope of project" and the factors to be considered by the review panel. Once these parameters have been set, the proponent describes the project and its anticipated environmental effects in an Environmental Impact Statement (or EIS). The EIS sets out all of the information on which the review panel bases the environmental assessment. The review panel holds public hearings and then prepares a report setting out its rationale, conclusions and recommendations, as well as a summary of any comments from the public. The review panel provides the report to the Minister of the Environment and the responsible authority and the Minister is required to make it available to the public.[56] A decision is then made as described below in section 3.6.

66. Given that a review panel involves public hearings, this type of assessment offers the most robust opportunities for public participation under the Act. The review panel must ensure that the information it requires to conduct the review is made available to the public.[57] Further, the panel must hold hearings in a manner that offers the public an

[55] *ibid*, s. 33(1)(b).

[56] *ibid*, s. 36.

[57] *ibid*, s. 34(a).

opportunity to participate in the assessment.[58] The Act also provides for funding to assist the public in participating in a review panel.[59]

3.4.4 The October 2003 Amendments to the Act

67. As mentioned above, the Act underwent significant amendments that entered into force on October 30, 2003, but because of the transitional clause[60] in those amendments, I understand that the pre-October 2003 Act was applied to the Whites Point environmental assessment. As a result, the comments that I have made about the Act above all relate to the version of the Act in force pre-October 2003. However, I understand that the Claimants in this arbitration have made some comparisons between the environmental assessment of the Whites Point project and the environmental assessment of projects to which the October 2003 amendments applied. As such, I note some of the key October 2003 amendments to the Act here.

68. Under the pre-October 2003 Act, where issues remained at the end of the comprehensive study process regarding "significant adverse environmental effects" or "public concerns," a project could be referred to a review panel. This gave rise to the possibility that a project could be fully reviewed as a comprehensive study, and then at the end of this process be referred to a review panel. This possibility created uncertainty about the time and cost involved in the environmental assessment process. In response to this concern, in October 2003, an amendment was made to the Act requiring the Minister of the Environment to make a "track decision" early on in the process so that a project could only be assessed as a comprehensive study or by a review panel, but not by both.[61]

69. While the "track decision" amendment was considered desirable by proponents, other stakeholders expressed concern that the amendment would effectively lock an environmental assessment into a comprehensive study, and that under the existing Act, the

[58] *ibid*, s. 34(b).

[59] *ibid*, s. 58(1.1).

[60] *An Act to Amend the Canadian Environmental Assessment Act*, 2003, c.9, s. 33, **Exhibit R-17**.

[61] *ibid*, s. 12, ss. 21.1.

ability of the public to participate in a comprehensive study was not sufficient.[62] As a result, it was agreed that the opportunities for public participation in the comprehensive study process had to be significantly strengthened. This was done through a suite of amendments to the Act that made the comprehensive study process much more robust in terms of public participation than it was under the pre-October 2003 Act. In particular, these amendments provide that, in a comprehensive study, the government must:

- ensure public consultation on the proposed scope of the project, the factors proposed to be considered in the assessment, the proposed scope of those factors, and the ability of the comprehensive study to address issues relating to the project;[63]
- after the public consultation, report to the Minister of the Environment on the public concerns in relation to the project and on whether a comprehensive study will address the issues relating to the project;[64]
- ensure that the public is provided with the opportunity to participate in the comprehensive study;[65]
- establish a participant funding program to assist the public in participating in the comprehensive study review process (funding was previously not available in a comprehensive study and could now be used to hire independent scientific experts to review and provide comments on the comprehensive study report);[66] and
- before issuing a decision on the environmental assessment, consider whether to ask a federal authority or the proponent to ensure that actions are taken to address outstanding public concerns.[67]

70. These enhanced public participation features have been an integral feature of the comprehensive study process since October 30, 2003.

[62] Campbell, Karen, West Coast Environmental Law and Venton, Margaret, Sierra Legal Defence Fund, *Joint Submission by West Coast Environmental Law and Sierra Legal Defence Fund to the CEAA* [Canadian Environmental Assessment Act] *5 Year Review*, 31 March, 2000, Page 6: "We understand that consideration may be given to abandoning the possibility of bumping up a comprehensive study to a panel review in certain circumstances. In our view, this should not occur at all unless the opportunities for public participation, including participant funding, are significantly strengthened for the comprehensive study," **Exhibit R-18**.

[63] *An Act to Amend the Canadian Environmental Assessment Act*, 2003, c.9, s. 12, ss. 21(1), **Exhibit R-17**.

[64] *ibid*, s.12, ss. 21(2)(a)(ii) and (iv).

[65] *ibid*, s. 12, ss. 21.2.

[66] *ibid*, s. 28(2), ss. 58(1.1).

[67] *ibid*, s. 13, ss. 23(2).

3.5 The Factors Considered in the Scope of the Assessment

71. Once the type of assessment has been determined, the responsible authority (for screenings and comprehensive studies) or the Minister of the Environment (for review panels) must determine the "scope of the assessment," that is, the components of the environment and other matters that are to be addressed in the environmental assessment.

72. Section 16 of the Act (Table 7) governs the determination of the scope of an environmental assessment. There are certain factors listed in s. 16(1)(a) to (e) that must be considered in every type of environmental assessment. Subsection 16(2) then sets out additional factors that must be considered in comprehensive studies and review panels. I consider all of these factors below.

Table 7: Environmental factors to be considered in the scope of the assessment

16 (1) Every screening or comprehensive study of a project and every mediation or assessment by a review panel shall include a consideration of the following factors:
(a) the environmental effects of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project and any cumulative environmental effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out;
(b) the significance of the effects referred to in paragraph (a);
(c) comments from the public that are received in accordance with this Act and the regulations;
(d) measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the project; and
(e) any other matter relevant to the screening, comprehensive study, mediation or assessment by a review panel, such as the need for the project and alternatives to the project, that the responsible authority or, except in the case of a screening, the Minister after consulting with the responsible authority, may require to be considered.

(2) In addition to the factors set out in subsection (1), every comprehensive study of a project and every mediation or assessment by a review panel shall include a consideration of the following factors:
(a) the purpose of the project;
(b) alternative means of carrying out the project that are technically and economically feasible and the environmental effects of any such alternative means;
(c) the need for, and the requirements of, any follow-up program in respect of the project; and
(d) the capacity of renewable resources that are likely to be significantly affected by the project to meet the needs of the present and those of the future.

(3) The scope of the factors to be taken into consideration pursuant to paragraphs (1)(a), (b) and (d) and (2)(b), (c) and (d) shall be determined
(a) by the responsible authority; or
(b) where a project is referred to a mediator or a review panel, by the Minister, after consulting the responsible authority, when fixing the terms of reference of the mediation or review panel.

3.5.1 The Environmental Effects of the Project

73. The most important of the factors listed in s. 16 of the Act is specified in paragraph (a) – the "environmental effects" of the project. As mentioned above, an "environmental effect" (Table 8) means "any change that the project may cause in the environment,[68] including any change it may cause to a listed wildlife species, its critical habitat or the residences of individuals of that species, as those terms are defined in the *Species at Risk Act*. "Environmental effect" also means "any effect of any change [in the environment]" on health and socio-economic conditions, physical and cultural heritage, the use of lands by aboriginal persons, and sites of archaeological importance.

Table 8: Definition of environmental effect

(a) any change that the project may cause in the environment, including any change it may cause to a listed wildlife species, its critical habitat or the residences of individuals of that species, as those terms are defined in subsection 2(1) of the *Species at Risk Act*
(b) any effect of any change referred to in paragraph (a) on
(i)health and socio-economic conditions,
(ii) physical and cultural heritage,
(iii) the current use of lands and resources for traditional purposes by aboriginal persons, or
(iv) any structure, site or thing that is of historical, archaeological, paleontological or architectural significance, or
(c) any change to the project that may be caused by the environment, whether any such change occurs within or outside Canada.

Note: paragraph (a) of the definition was amended by s. 137 of the *Species at Risk Act, S.C.*, 2002, c. 29, proclaimed on June 5, 2003.

3.5.2 Cumulative Environmental Effects

74. Paragraph 16(1)(a) also requires all environmental assessments to consider the "cumulative environmental effects that are likely to result from the project in combination with any other projects that have been or will be carried out". This provision broadens the environmental assessment to include examination of the environmental effects beyond those included in the "scope of project" under review. The effects of the scoped project on various environmental components must be considered together with any interacting effects on those same environmental components by existing or future projects.

[68] "Environment" is also a defined term under the Act. "Environment" means "the components of the Earth, and includes … "land, water and air", "all organic and inorganic matter and living organisms" and "the interacting natural systems" that include these components.

75. The Agency augmented its initial guidance on addressing cumulative environmental effects with the issuance of an Operational Policy Statement in 1999.[69] The Operational Policy Statement provided further guidance on the scope of cumulative effects,[70] noting that in assessing cumulative effects, responsible authorities were to consider future projects that are "certain" and "reasonably foreseeable". The Statement further provides that while the Act does not require consideration of "hypothetical" projects, responsible authorities may choose to consider hypothetical projects at their discretion.[71]

3.5.3 The Significance of Any Adverse Environmental Effects

76. Paragraph 16(1)(b) of the Act requires consideration of the "significance" of any "environmental effects" of a project. As part of the significance analysis, paragraph (d) requires consideration of technically and economically feasible measures that would mitigate any significant adverse environmental effects of the project. Mitigation is described in section 3.5.5 below.

77. The Act does not does not define the terms "adverse" or "significant". However, the Agency has prepared a Reference Guide[72] to assist in determining if the environmental effects are adverse, significant, and likely to occur. This determination is made on the basis of scientific analysis and interpretation, and public values for the environmental components that may be affected by a project. In one of the most frequently cited studies in the early development of environmental assessment in Canada, the authors noted that:

> Any consideration of the significance of environmental effects must acknowledge that environmental impact assessment is inherently an anthropocentric concept. It is centred

[69] Canadian Environmental Assessment Agency, *Operational Policy Statement, Addressing Cumulative Environmental Effects under the Canadian Environmental Assessment Act,* 1999, **Exhibit R-19**.

[70] *ibid*, Page 2: "...federal assessments of cumulative effects can extend beyond changes to the biophysical environment and include, for example, the effects of such changes on health and socio-economic conditions, physical and cultural heritage and other environmental effects as defined in Paragraph 2 of the Act".

[71] *ibid*, Page 2: "The Act does not require consideration of hypothetical projects but RAs [responsible authorities] may chose to do so at their discretion. Information concerning the cumulative effects of the project under assessment combined with hypothetical projects may contribute to future environmental planning. However, it should not be a determining factor in the environmental assessment decision under the Act".

[72] Canadian Environmental Assessment Agency, *Reference Guide: Determining Whether a Project is Likely to Cause Significant Adverse Environmental Effects,* 1994, **Exhibit R-20**.

on the effects of human activities and ultimately involves a value judgement by society of the significance or importance of these effects.[73]

The Reference Guide sets out the following three step process to determine if the environmental effects are adverse, significant and likely to occur.

Step 1: Are the environmental effects adverse? The Reference Guide describes the major factors that should be considered in determining whether environmental effects are adverse. In particular, the Guide lists changes in the environment and how such changes to the environment may affect people. For example, negative effects on "the health of plants, animals and fish" may have "negative effects on human health, well-being, or quality of life". "Threats to rare or endangered species" may result in "an increase in unemployment or shrinkage in the economy". A "transformation of natural landscapes" may result in "decreased aesthetic appeal or changes in visual amenities (e.g. views)".[74] For each of the relevant factors, the quality of the existing environment is compared with the predicted quality of the environment, should the project proceed, in order to determine whether effects are adverse. The project proponent must determine baseline conditions in the existing environment which involves collecting statistically sound data over a reasonable time period. Where there are gaps in existing baseline information the proponent is required to undertake new studies. The proponent must then predict how the project will change the baseline conditions using scientific models and, or best professional judgement. Any negative change between baseline and predicted conditions would result in a determination of an adverse effect.

Step 2: Are the adverse environmental effects significant? The Reference Guide sets out the following five criteria for determining if an adverse environmental effect is significant after the application of mitigation measures (which I discuss below): magnitude (severity of the effect); geographic extent (localized or regional effect?);

[73] Beanlands, Gordon and Duinker, Peter, *An Ecological Framework For Environmental Impact Assessment in Canada*, published by the Institute of Resource and Environmental Studies, Dalhousie University and the Federal Environmental Assessment Review Office, 1983, Page 44, **Exhibit R-21**.

[74] Canadian Environmental Assessment Agency, *Reference Guide: Determining Whether a Project is Likely to Cause Significant Adverse Environmental Effects*, 1994: Table 1, Page 189, **Exhibit R-20**.

duration and frequency (long term or temporary?); reversibility (is the effect reversible?); and, ecological context (is the location a pristine environment and ecologically fragile?).[75] For example, using fish habitat as an environmental factor, if the effect would result in the permanent elimination of an important fish spawning ground, the effect would be severe, long term, and irreversible, and consequently it would be reasonable to conclude that the effect would be significant.

Step 3: Are the significant adverse environmental effects likely to occur? The Reference Guide provides for two criteria to assist in determining likelihood: probability of occurrence - if there is a high probability that the identified significant adverse effects will occur, they are likely; and scientific uncertainty - this involves determining confidence levels based on statistical methods or best professional judgement. If the confidence limit is high, then there is a high degree of confidence in the conclusion that an effect will be likely or not.[76]

3.5.4 Comments from the Public

78. Paragraph 16(1)(c) of the Act requires consideration of comments from the public received during the environmental assessment. As noted earlier, the importance of public participation in the environmental assessment process is recognized in the preamble and purposes of the Act. Prominent scholars who have authored articles on environmental assessment and public involvement have observed that "[p]ublic participation has long been recognized as a cornerstone of environmental assessment."[77]

79. Comments from the public, depending on the nature of the project under review, often address matters associated with effects on components of the biophysical environment (e.g., water and air, plants, animals and people) as well as effects on socio-economic components (e.g., traffic, employment, health and social systems, aesthetics, quality of life in a

[75] *ibid*, Pages 188-192.

[76] *ibid*, Pages 193-194.

[77] Sinclair, John and Diduck, Alan, Public Participation in Canadian Environmental Assessment: Enduring Challenges and Future Directions. In Hanna, Kevin S. (Ed.), *Environmental Impact Assessment, Practice and Participation*, 2009, Oxford University Press, Chapter 4, Page 58, **Exhibit R-22**.

community and the harvesting of natural resources such as fish and wild game). At the outset of an environmental assessment, consultation with the public assists in determining which of these effects are important for the review to focus upon. These important components are referred to as "valued ecosystem components" or "valued environmental components."[78] Also, as noted earlier, public views play an important role in determining the significance of environmental effects. Local public and traditional knowledge can also assist in understanding a project's effects on the environment and on a community.

80. Consideration of comments from the public facilitates the identification of issues of public concern and an understanding of the reasons underlying such concerns. Often a project can be modified through the environmental assessment process to respond to public input. For example a linear project, such as a pipeline or a road, could be re-routed to avoid areas of concern. Members of the public might also identify mitigation measures that would satisfy their concerns. In sum, evidence that public comments have been taken into account can build trust and can avoid or reduce public concern.

81. As noted earlier, the three types of assessments - screening, comprehensive study or review panel - can be differentiated on the basis of opportunities for public participation. A project with minimal environmental effect and low public concern will typically be assessed as a screening. Projects that have been pre-determined to be likely to have significant adverse environmental effects and hence are listed in the *Comprehensive Study List Regulations* offer additional opportunities for public participation. Projects that are assessed by a review panel typically attract high levels of public concern and hence more extensive opportunities for public participation are provided through a public hearing process and a participant funding program.

[78] Beanlands, Gordon and Duinker, Peter, *An Ecological Framework For Environmental* Impact *Assessment in Canada*, published by the Institute of Resource and Environmental Studies, Dalhousie University and the Federal Environmental Assessment Review Office, 1983, Pages 18-19 describe this concept as follows: "Each of the environmental attributes or components identified as a result of a social scoping exercise is referred to as a valued ecosystem component. These may be determined on the basis of perceived public concerns related to social, cultural, economic or aesthetic values. They may also reflect the scientific concerns of the professional community as expressed though the social scoping procedures (i.e. public hearings, questionnaires, interviews, workshops, media reports, etc)". Note also that this term is also commonly referred to as "valued environmental components" to reflect a broader definition that includes socio-economic considerations, **Exhibit R-21**.

82. The participant funding program was established to facilitate public participation in the review panel process by providing financial assistance to eligible individuals and public organizations. The program enables individuals and groups to gather information from their respective communities, engage expertise to review technical documents and to present this information to the review panel. The resulting input improves the quality of the information presented to the review panel and allows for an improved exchange of informed views on the environmental effects of a project.

3.5.5 Mitigation Measures

83. "Mitigation" is defined in s. 2(1) of the Act to mean "in respect of a project, the elimination, reduction or control of the adverse environmental effects of the project, and includes restitution for any damage to the environment caused by such effects through replacement, restoration, compensation or any other means." Hanna has noted:

> The process of mitigation involves outlining the measures that can be taken to reduce or eliminate the impacts identified. It also provides the proponent with the opportunity to make the project better, to respond to the concerns of those affected, and to improve the likelihood that the proposal will be favourably received by the EIA [environmental impact assessment] and other approval agencies. Effective mitigation measures can make a project more likely to be accepted and perhaps even ensure that it is more efficiently implemented.[79]

84. With reference to the example I have already provided on the elimination of a fish spawning ground, if mitigation measures reduce or eliminate this effect, then the overall magnitude of the effect could be negligible or insignificant. Past practice, professional judgment and public views are important considerations in determining the effectiveness of mitigation measures and whether they can reduce a significant adverse environmental effect to an insignificant effect.

[79] Hanna, Kevin S, Environmental Impact Assessment: Process, Setting, and Efficacy. In Hanna, Kevin S. (Ed.), *Environmental Impact Assessment, Practice and Participation*, 2009, Oxford University Press, Chapter 1, Page 11, **Exhibit R-2**.

3.5.6 Other Factors to be Considered

85. Other factors to be considered in every type of environmental assessment include, under s. 16(1)(e), any other relevant matter such as the need for the project and alternatives to the project.

86. Subsection 16(2) specifies additional factors that must be considered in every comprehensive study or assessment by a review panel. These include: the purpose of the project; alternative means of carrying out the project; the need for follow up programs in respect of the project; and, the capacity of renewable resources that are likely to be significantly affected by the project.

3.6 The Decision of the Government at the Conclusion of an Environmental Assessment

87. Following the completion of the environmental assessment, the government decision-maker is required to make a determination of whether or not to act on the basis of the environmental assessment process. The decision-making at this stage is of a different quality than that which occurs at the beginning of the assessment because the information gathering aspect of the environmental assessment process is now complete. In a screening, that decision-maker is the responsible authority. In a comprehensive study, it is the Minister of the Environment who directs the responsible authority, though in consultation with it, on how to respond to an assessment. Finally, in a review panel, the Governor in Council approves the response to the panel report, and the response is then issued by the responsible authority. The responsible authority then makes the final environmental assessment decision in conformity with the aforementioned Governor in Council approval.

88. If the appropriate government decision-maker determines that the project is not likely to cause significant adverse environmental effects, (taking into account any appropriate mitigation measures that can be implemented) the responsible authority "may" take action (e.g., the issuance of a permit), that would permit the project to be carried out. If on the other hand, the appropriate government decision-maker determines that the project is likely to cause significant adverse environmental effects (again, taking into account any appropriate mitigation measures) that cannot be justified in the circumstances, the

responsible authority "shall not" take action that would permit the project to be carried out in whole or in part.[80]

4.0 Assessment by a Joint Review Panel

89. As discussed above, the federal and provincial governments share regulatory authority over the environment, and thus, the same project can trigger multiple environmental assessments under different regulatory regimes. The problems presented by the possibility of multiple processes include duplication of effort among government agencies, an increased burden on the project proponent and the public resulting from having to participate in multiple separate processes, and the potential for disparity in the information provided to each level of government making a decision.

90. For this reason, early on in the development of its system of environmental regulation, Canada adopted rules that would allow for the harmonization of multiple environmental assessment processes. For example, in 1984 the *Environmental Assessment and Review Process Guidelines Order*[81] introduced the concept of joint federal-provincial review panels. Then, in 1992, in anticipation of the proclamation of the Act, the Canadian Council of Ministers of the Environment developed a Framework for Environmental Assessment Harmonization.[82] The ability to harmonize environmental assessments between jurisdictions was then provided for expressly in the Act.

91. Subsequently, in 1998, the *Canada Wide Accord on Environmental Harmonization*[83] and a *Sub-agreement on Environmental Assessment*[84] were signed by the federal, provincial and territorial governments. The *Canada Wide Accord* outlines the principles governing

[80] *Canadian Environmental Assessment Act*, S.C. 1992, c. 37, s. 20(1)(b) (screening), s. 23 (a)(ii) (comprehensive study) and s. 37(1)(b) (review panel), **Exhibit R-1**.

[81] *Environmental Assessment and Review Process Guidelines Order*, SOR/84-467, s. 32 and s. 35(c), **Exhibit R-8**.

[82] Canadian Council of Ministers of the Environment, *Framework for Environmental Assessment harmonization*, 1992, **Exhibit R-23**.

[83] Canadian Council of Ministers of the Environment, *Canada Wide Accord on Environmental Harmonization*, 1998, **Exhibit R-24**. Note that Quebec did not sign the Accord or the Sub-agreement but entered into a bilateral agreement on environmental assessment cooperation with the federal government in 2004.

[84] Canadian Council of Ministers of the Environment, *Sub-agreement on Environmental Assessment*, 1998, **Exhibit R-25**.

environmental management and mechanisms to guide the development of sub-agreements amongst jurisdictions. The *Sub-agreement* enables a single environmental assessment process to be applied that meets the legal and decision-making requirements of each jurisdiction.[85] It also allows for the development of bi-lateral agreements for harmonization between the federal government and each province and territory in recognition of the legislative differences that exist in the various regimes.

92. The benefits of harmonized assessments include: the ability of both levels of government to use the results of the process in making their respective decisions on a project; the sharing of the expertise and resources of each level of government; and, improved efficiency through the provision of one process meeting the legal requirements of each level of government.

93. In this section of the Report, I provide further detail on one type of harmonization, specifically, a joint review panel. A joint review panel is a review panel constituted with another jurisdiction. While review panels and joint review panels are similar in nature and operation, the Act prescribes separate statutory provisions for each. Below I focus on the statutory provisions relating to joint review panels as this was the type of review panel that conducted the assessment of the Whites Point project. I understand that the provisions of the Nova Scotia *Environment Act* pertaining to joint review panels have been explained in the Affidavit of Chris Daly.

94. The typical steps in a joint review panel process (see Annex III) are described below, and include the establishment of the Panel, the preparation and review of the environmental impact statement, the public hearings, the recommendation of the review panel, and finally, the decision of the government in response to that recommendation.

4.1 Establishment of a Joint Review Panel

4.1.1 The Agreement

95. Section 40 of the Act authorizes the Minister of the Environment to establish joint review panels with another jurisdiction. Joint review panels are established by a project-

[85] *ibid*, s. 5.7.0

specific agreement between the Minister of the Environment and the appropriate official in the other jurisdiction. The agreement typically identifies how a joint review panel will be established and the legislative basis for the conduct of the review by each jurisdiction. It also includes the terms of reference for the review, which I discuss in more detail below.

96. The agreement must include the provisions for joint review panels as specified in s. 41 of the Act (Table 9). Its members must be unbiased and free of any conflict of interest and have knowledge or experience relative to the environmental effects of the project. Its members are also conferred the power to summon individuals and documents as provided for in s. 35 of the Act, must provide an opportunity for public participation, and must submit their report to the Minister of the Environment who is required to make it public.

Table 9: Joint Review panels

41. An agreement or arrangement entered into pursuant to subsection 40(2) or (3) shall provide that the assessment of the environmental effects of the project shall include a consideration of the factors required to be considered under subsections 16(1) and (2) and be conducted in accordance with any additional requirements and procedures set out in the agreement and shall provide that
(a) the Minister shall appoint or approve the appointment of the chairperson or appoint a co-chairperson, and shall appoint at least one other member of the panel;
(b) the members of the panel are to be unbiased and free from any conflict of interest relative to the project and are to have knowledge or experience relevant to the anticipated environmental effects of the project;
(c) the Minister shall fix or approve the terms of reference for the panel;
(d) the review panel is to have the powers and immunities provided for in section 35;
(e) the public will be given an opportunity to participate in the assessment conducted by the panel;
(f) on completion of the assessment, the report of the panel will be submitted to the Minister; and
(g) the panel's report will be published.

42. Where the Minister establishes a review panel jointly with a jurisdiction referred to in subsection 40(1), the assessment conducted by that panel shall be deemed to satisfy any requirements of this Act and the regulations respecting assessments by a review panel.

97. A joint review panel agreement typically addresses administrative matters as well, including cost sharing, and provision of participant funding, and the roles and responsibilities of the different jurisdictions and how each will support the review, including the establishment of a secretariat. The secretariat consists of members appointed by the involved jurisdictions. It provides administrative and technical support to the joint review panel and assistance in developing its procedures, and any other documents issued

by the panel, including its final report. It also liaises with the community to explain the review procedures and the opportunities to participate in the review process.

98. The agreement also specifies who will receive the joint review panel report and who is responsible for taking a decision following consideration of the report.

99. In recognition of the fact that the environmental assessment processes in other jurisdictions in Canada vary considerably, the Act allows considerable flexibility and does not spell out the specific steps to be followed in a joint panel review. Thus, there is a natural variation in the applicable procedures between assessments depending on the nature of the review process in the other jurisdiction. For example, in agreements with the Alberta Energy Resources Conservation Board, joint review panels have adopted the quasi-judicial hearing process followed by that Board.

100. In light of this variation, in 1997 the Agency developed a procedural guide for review panels entitled *Procedures for an Assessment by a Review Panel*. The Agency uses the procedures set out in this guidance document when a joint review is to be held with a non-federal jurisdiction.[86] For example, this document was referenced in the terms of reference for the Whites Point review to guide the joint review panel on procedural matters not specifically addressed in the terms of reference.[87]

4.1.2 The Terms of Reference

101. A joint review panel's terms of reference are developed as part of the agreement to establish the joint review panel. They are issued jointly by the Minister of the Environment and usually by the provincial Minister of the Environment in the case of a joint review with a province. They set the parameters of the review, and serve to clarify expectations for all participants in the process. They include an overview of the scope of project and its

[86] Canadian Environmental Assessment Agency, *Procedures for an Assessment by a Review Panel*, November, 1997, Page 1, Para 1.2, **Exhibit R-26**.

[87] *Agreement concerning the establishment of a Joint Review Panel for the Whites Point Quarry and Marine Terminal Project between the Minister of the Environment, Canada and the Minister of the Environment and Labour, Nova Scotia*, Terms of Reference for the Joint Panel Review, Part II, Para 11, Page 8, **Exhibit R-27**.

location, the factors to be considered in the assessment, the requirements of the panel report and the applicable steps and timelines in the review process.

102. An assessment by a joint review panel must generate the type and quality of information required to meet the legal requirements of each party.[88] As such, in the terms of reference, the description of the scope of project, the listing of the factors to be considered in the assessment, and the requirements of the panel report will exceed that which would be required under just one of the involved jurisdictions.

103. For example, the terms of reference for a joint review panel will provide that the scope of project includes all of the physical works proposed by the proponent and all the undertakings related to the physical works regardless of which party to the Agreement establishing the joint review panel has jurisdiction over the physical works. In essence, an agreement to establish a joint review of the entire project eliminates potential questions as to which government has jurisdiction over the various project components and in the scope of project. This is because the environmental assessment must provide the information required to allow each government to make a decision following completion of the assessment. This fact is reflected by the project description in the Whites Point terms of reference. Another example is provided by the scope of project in the *Guidelines for the Preparation of the Environmental Impact Statement of the Rabaska Project.* This was a joint review panel involving several federal departments (Fisheries and Oceans, Transport and the National Energy Board) and the province of Quebec. The scope of project in *Rabaska* was comprised of all of the various components of the project, regardless of whether they might be a matter of federal or provincial jurisdiction.[89]

104. Similarly, regarding the factors to be included in the scope of the assessment, a joint review panel's terms of reference will include the factors specified in the legislation of each jurisdiction. For example, as I have noted above in sections 3.5.1 and 3.5.2, the Act requires consideration of factors such as cumulative environmental effects and effects on socio-

[88] Canadian Council of Ministers of the Environment, *Sub-agreement on Environmental Assessment*, 1998, s 5.7.0. (i), Page 5, **Exhibit R-25**.

[89] Canadian Environmental Assessment Agency, *Guidelines for the Preparation of the Environmental Impact Statement of the Rabaska Project*, 2005, Pages 3-4, **Exhibit R-28**.

economic conditions arising from a change in the environment. By contrast, many of the provinces, including Nova Scotia, do not require consideration of cumulative environmental effects but do require consideration of the socio-economic effects arising from the proposed project.[90] The terms of reference for a joint review panel involving such a province will typically require consideration of cumulative environmental effects and socio-economic effects in order to meet the legal requirements of both the Act and the provincial environmental assessment regime. This was the case with the Whites Point terms of reference. Another example is provided by the terms of reference in the *Agreement Concerning the Establishment of a Joint Review Panel for the Kemess North Copper-Gold Mine Project* between Canada and British Columbia.[91] This joint review panel's terms of reference required it to consider "cumulative environmental effects" in accordance with the Act. But it was also to consider "economic, social, heritage and health effects" which are factors to be considered under British Columbia's *Environmental Assessment Act*.[92]

105. Finally, a joint review panel's terms of reference will specify requirements for the panel's report and these too will reflect the provincial regime. For example, Part IV of Nova Scotia's *Environment Act* contemplates an approval (with or without conditions) or a rejection of a project in the Nova Scotia environmental assessment process. The Whites Point terms of reference therefore required the joint review panel's report to recommend "either the approval, including mitigation measures, or rejection of the Project," in addition to recommendations on factors prescribed under the Act.[93] Another illustrative example is the *Agreement to Establish a Joint Panel for the Kearl Oil Sands Project* between Canada and the Alberta Energy and Utilities Board. This Agreement required the joint review

[90] *Nova Scotia Environment Act*, 1994-95, c.1, s.1, s. 3(r): the definition of "environment" means "the components of the earth and includes (i)...(v) for the purpose of Part IV [addressing the environmental assessment process], the socio-economic, environmental health, cultural and other items referred to in the definition of environmental effect", **Exhibit R-5**.

[91] *Agreement concerning the Establishment of a Joint Review Panel for the Kemess North Copper-Gold Mine Project between the Government of Canada, as represented by the Minister of the Environment and the Province of British Columbia, as represented by the Minister of Sustainable Resource Management*, 2005, Appendix 1, **Exhibit R-29**.

[92] These factors are reflected in s. 10 of the British Columbia *Environmental Assessment Act*, [SBC 2002] Chapter 43, **Exhibit R-30**.

[93] *Agreement concerning the establishment of a Joint Review Panel for the Whites Point Quarry and Marine Terminal Project between the Minister of the Environment, Canada and the Minister of the Environment and Labour, Nova Scotia,* Terms of Reference for the Joint Review Panel, Para 6.3, Page 5, **Exhibit R-27**.

panel's "final report" to contain "decisions pursuant to the *Energy Resources Conservation Act* or the *Oil Sands Conservation Act*" and conclusions and recommendations pursuant to the *Canadian Environmental Assessment Act*."[94]

4.1.3 Panel Selection

106. Typically, review panels and joint review panels consist of three members. Paragraph 41(a) of the Act (Table 9) requires that the Minister of the Environment appoint or approve the appointment of the chairperson or appoint a co-chairperson, and appoint at least one other member of the joint review panel.

107. The Agency assists the Minister of the Environment in identifying potential candidates for appointment. Persons considered as candidates for panel chairs have often had previous experience chairing a review panel or a similar administrative tribunal such as a hearing process established under a provincial regime. Often these individuals also have expertise relative to the project under review. For other members, the Agency and the other jurisdiction would typically identify individuals who are familiar with the nature of the project, who have expertise in assessing or understanding environmental effects or who might have knowledge about the affected public.

108. Paragraph 41(b) of the Act requires that joint review panel members be unbiased and free of a conflict of interest. Potential panel members are required to review the Agency's guidance on "Conflict of Interest for Members of Review Panels and Participant Funding Committees"[95] and to consider whether they would meet these requirements. For example, a person who has shares in the proponent's company or who was working for the company in some capacity would be rejected as this would be considered a potential conflict of interest. Similarly, a potential panel member who has expressed a public view about the project under review would be seen by a reasonable person to have a bias towards the project and therefore would not be a suitable member.

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[94] *Agreement to Establish a Joint Panel for the Kearl Oil Sands Project between the Minister of the Environment, Canada and the Alberta Energy and Utilities Board*, 2006, definition of "Final Report", section 1, Page 3, **Exhibit R-31**.

[95] Canadian Environmental Assessment Agency, *Your Role in an Assessment by a Review Panel: A Guide for Chairpersons and Members*, July 2001, Annex A, **Exhibit R-32**.

109. The potential members are often interviewed by Agency staff together with the other jurisdiction to verify the appropriateness of the candidate's expertise or knowledge and to determine whether they are free of any conflict of interest or bias towards the project. As part of the interview process, staff would typically describe the project under review and provide candidates with a copy of the draft agreement and the terms of reference. Agency staff would also describe the roles and responsibilities of panel members and in some cases refer to the Agency's guidance document for panel chairpersons and members[96] and its procedures for an assessment by a review panel.[97]

4.2 The Preparation and Review of the Environmental Impact Statement

110. The environmental impact statement (EIS) is a document prepared by the proponent and describes the project and the biophysical and socio-economic environment in the project area. It also predicts the environmental effects of the project, describes mitigation measures, identifies any predicted residual effects after mitigation and outlines how the public has been consulted. It is the primary document that the panel relies on in conducting the assessment. I describe the steps relating to preparation of the EIS below.

4.2.1 Draft Guidelines for the Preparation of the Environmental Impact Statement

111. The guidelines for the preparation of the EIS are detailed instructions to the proponent on the information regarding the environmental effects of a proposed project that must be addressed in the EIS. They also include the approach or the principles that the panel will follow in the review. They can be issued in draft form either by the joint review panel or jointly by the two jurisdictions. The public, the proponent and government departments have the opportunity to review and provide comments on them in writing or orally at public scoping meetings.

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[96] Canadian Environmental Assessment Agency, *Your Role in an Assessment by a Review Panel: A Guide for Chairpersons and Members*, July 2001, **Exhibit R-32**.

[97] Canadian Environmental Assessment Agency, *Procedures for an Assessment by a Review Panel*, November, 1997, **Exhibit R-21**. Note that this document provides guidance to Panels on matters outlined in sections 4.2 to 4.4 of this Report.

4.2.2 Scoping Meetings

112. Scoping meetings are public hearings held after the draft guidelines for the EIS have been issued.[98] They allow the public an opportunity to identify issues to be examined in the environmental assessment. The proponent may also seek clarification on issues identified in the draft guidelines or comment on suggestions made by participants in the scoping meetings. Such meetings allow the panel to understand which subjects and environmental factors are important and hence provide a greater focus on key issues in the forthcoming review.

4.2.3 Final EIS Guidelines

113. After receiving and considering comments from the public, government agencies and the proponent on the draft guidelines, the joint review panel finalizes and issues final guidelines to the proponent.

4.2.4 Preparation of the EIS

114. The EIS is then prepared by the proponent in response to the EIS guidelines. It is a substantive document and contains various site-specific studies on environmental factors. It is usually prepared by a lead consulting firm which may also need to engage other consultants given the requirement for expertise from many different disciplines. The EIS is typically submitted to the joint review panel shortly after the final guidelines are issued.

4.2.5 EIS Review

115. Once the EIS is submitted to the joint review panel, it is made public and comments are invited on its adequacy. The joint review panel examines the EIS and the comments received to determine if it is sufficient to proceed to public hearings. The objective of this

[98] Scoping meetings were typically held by review panels around the time of the Whites Point review and were specified as a process step in the joint review panel's terms of reference for the Whites point project (*Agreement concerning the establishment of a Joint Review Panel for the Whites Point Quarry and Marine Terminal Project between the Minister of the Environment, Canada and the Minister of the Environment and Labour, Nova Scotia*, Terms of Reference for the Joint Review Panel, Part II, Para 2, Page 7, **Exhibit R-27**). This process step was consistent with the Agency's guidance document on procedures for review panels (Canadian Environmental Assessment Agency, *Procedures for an Assessment by a Review Panel*, November, 1997, section 4.8, Pages 14-16, **Exhibit R-26**). It is my understanding that in recent years scoping meetings have not been included as a process step in the terms of reference for joint review panels.

review is for the joint review panel to satisfy itself that the requirements in the EIS guidelines have been met and to determine whether information deficiencies exist before convening the hearing. It is normal for panels to seek additional information from the proponent following the EIS review. This is done to avoid a situation where new information is brought forward at the hearings. If this were to happen, the hearings might have to be adjourned to allow participants time to review and comment on the new information.

116. Once responses are received from the proponent, they are made public and a further comment period may take place before the joint review panel decides to convene the hearings. If the panel is still not satisfied with the information received it may issue further information requests and repeat the process of receiving comment on the proponent's responses. Once the joint review panel is satisfied that sufficient information has been provided it announces the dates for the hearing.

4.3 The Public Hearing

117. As joint review panels are a form of a review panel, they have always held public hearings. Hearings are conducted in the project area to enable interested parties and the general public to present their views about the project's effects. Hearings encourage discussion of contentious issues and allow the proponent to respond. They allow for an examination of technical and scientific matters and the assumptions used in reaching conclusions. They also enable the joint review panel to understand the values that people have with respect to the surrounding environment and how it may be affected by the project.

118. The hearings are generally conducted in an informal but structured manner. They generally do not follow the rules of procedure and evidence required by a Court of law but they must conform to principles of procedural fairness. In order to ensure that they do, review panels issue procedures for public hearings which explain the objectives of the hearings and outline how they will be conducted. These procedures typically address how participants can register to speak, specify when presentations are to be submitted in advance of the hearings, and explain the order of presentations, whether there will be topic-specific

sessions, and how questioning will be managed by the review panel. The procedures also typically address administrative matters such as time limits for presentations, interpretation, preparation of verbatim transcripts, scheduling of speakers and instructions for the media.

119. Participants in a hearing typically include the proponent, federal, provincial and local government departments, aboriginal and organized groups and associations, and the public. Technical experts may also be engaged by a joint review panel to review a subject area, prepare a submission to the panel and respond to questions from any participant. Federal government participants include the responsible authorities for the project as well as those departments that have expertise to contribute (e.g., Environment Canada, Health Canada). Similarly, provincial government participants include the environment department and other key departments having regulatory responsibilities for the project. Local government representatives often include those with responsibilities for planning or development within the community in which the project is to be located.

120. In my experience, government participants generally describe their mandate and policies relevant to the project and whether the project is consistent with their policies and requirements, offer their advice on the accuracy or reliability of information presented by the proponent, present views on the appropriateness of measures to mitigate impacts and express their views on the methodologies used to predict effects of the project in their area of expertise. Federal government departments typically do not provide views on whether predicted effects are likely to be significant and adverse or as to whether or not the project should be approved or rejected.

121. Aboriginal and organized groups and associations are often able to engage technical experts with the aid of the participant funding program to review the potential environmental effects of the project. These groups and associations typically present their overall views in support of, or in opposition to, the project.

122. A period of questioning typically follows each presentation with participants, the proponent and the joint review panel having the opportunity to question the presenter. If a presenter is unable to answer a question at the hearing, it is not unusual for the joint review panel to request that the presenter undertake to provide a written answer at a later date.

123. At the end of the hearings participants and the proponent are provided an opportunity to make closing remarks which summarize their overall position and respond to arguments made over the course of the hearing. Verbatim transcripts are made of all the proceedings and are used by the panel following the hearing to review all the evidence presented to it.

4.4 The Joint Review Panel Report

124. Following the hearings, and the completion of the outstanding undertakings, the record for the review is closed and the joint review panel prepares its report with its conclusions and recommendations. The report summarizes the issues and concerns raised by all participants in the review and presents the joint review panel's rationale for its conclusions and recommendations. The panel submits the report to the Minister of the Environment and to the relevant representative of the other jurisdiction, and it is then made public.

4.5 The Decisions of the Governments

125. As I have noted the joint review panel report is submitted to both jurisdictions involved in the review. In the case of the Whites Point review, for example, the agreement to establish a joint review panel specified that the report was to be submitted to the Nova Scotia Minister of Environment and Labour and the Minister of the Environment, Canada and made public.[99]

4.5.1 Federal Response to the Joint Review Panel Report

126. Following receipt of the report, the federal responsible authority prepares a response to the joint review panel conclusions and recommendations and seeks the approval of the Governor in Council in responding to the report.[100] This involves preparing a Memorandum to Cabinet for the consideration of Ministers.

127. Although there is no mechanism in the Act for public comment on the report, it is not unusual for people, including both the proponent and members of the public, to seek to

[99] *Agreement concerning The Establishment of a Joint Review Panel for the Whites Point Quarry and Marine Terminal Project between the Minister of the Environment, Canada and the Minister of Environment and Labour, Nova Scotia*, November, 2004, Para 6.2, Page 5, **Exhibit R-27**.

[100] *Canadian Environmental Assessment Act*, S.C., 1992, c. 37, s. 37(1.1), **Exhibit R-1**.

express their views to Ministers on the panel's conclusions and recommendations. Ministers may agree to meet with such people, or otherwise receive their views at their discretion. If they so decide, Ministers would consider these views in their decisions.

128. The Act outlines three possible decisions that can be made by the federal government, taking into consideration the report submitted by the joint review panel. These are:

- the project can proceed because is not likely to cause significant adverse environmental effects;
- the project can proceed because it is likely that the project will cause significant adverse environmental effects but these effects can be justified; or
- the project should not proceed because it is likely to result in significant adverse environmental effects that cannot be justified.

129. If it is determined that the project may proceed then the responsible authority may take the appropriate course of action (e.g., issue permits or authorizations) to enable the project to proceed.

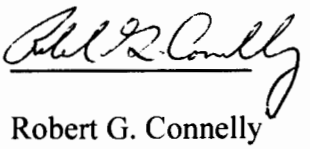
4.5.2 Provincial Response to the Report of a Joint Review Panel

130. In the case of a joint review panel with a province, the province must also review the report and take a separate decision under its jurisdiction. One or more provincial Ministers may be responsible for the decision to enable a project to proceed following the environmental assessment.

131. To my knowledge governments have reached similar decisions in response to joint review panel reports but the decisions are usually announced separately. However, if one jurisdiction decides that a project should not proceed or that a decision to enable a project to proceed should not be allowed, then the decision of the other jurisdiction effectively becomes moot. A project cannot proceed in such a circumstance as the approval of both levels of government is required.

Signed at Ottawa, Ontario

December 2, 2011



Robert G. Connelly

5.0 Annexes

5.1 Annex I - Curriculum Vitae

PROFESSIONAL EXPERIENCE

Connelly Environmental Assessment Consulting, Inc, August 2006 to present
President

- Chaired review panel for the Prosperity Gold-Copper Mine Project, Taseko Mines Ltd, British Columbia
- Chaired joint review panel for the Encana Shallow Gas Infill Development Project, Suffield Natural Wildlife Area, Alberta
- Provided strategic advice to Ontario Power Generation on its environmental assessment of the proposed expansion of the Darlington New Nuclear Power Plant, Ontario
- Assisted Ontario Power Generation in preparing for hearings before the joint review panel on the Darlington New Nuclear Power Plant Project
- Competed a report for the Forum of Federations on Environmental Impact Assessment in Federations and assisted the Forum of Federations in organizing and conducting an international conference on environmental assessment
- Completed a report on Environmental Assessment in Federations, Lessons for Canada, for the Major Projects Management Office, Natural Resources Canada

Canadian Environmental Assessment Agency, 1994 to 2005
Acting President (appointed by Order in Council), November 2003 to March 2005

- Reported directly to the Minister of the Environment
- Responsible for the overall administration of the Canadian Environmental Assessment Agency (the "Agency") which manages the environmental assessment process for most major projects subject to the *Canadian Environmental Assessment Act* (the "Act")

Vice-President, Policy Development, December 1993 to December 2003

- Responsible for the five year review of the Act and resulting proposed amendments in 2003
- Responsible for proposed amendments to the Act made in 1994 before its promulgation in 1995
- Appeared before Parliamentary Committees addressing amendments to the Act and on other matters associated with the Agency's administration
- Responsible for the development of regulations issued under the Act
- Chaired the Regulatory Advisory Committee, a multi-stakeholder committee that advised the Agency on the development of regulations and policies under the Act
- Served as federal lead in discussions on harmonization of federal/provincial environmental assessment leading to the development of the *Sub-Agreement on Environmental Assessment* signed by federal and provincial Environment Ministers in 1998

- Led the development of various bi-lateral agreements with provinces that made provision for joint federal/provincial joint environmental assessment reviews
- Responsible for the development of the Cabinet Directive on Strategic Environmental Assessment which applies to federal policies, plans and programs
- Responsible for the development of guidance material on the implementation of the Act
- Responsible for research and development initiated by the Agency
- Responsible for intergovernmental affairs, liaison with Aboriginal organizations and international programs
- Represented Canada in various international meetings on environmental assessment at the United Nations Economic Commission for Europe, the Organization for Economic Co-operation and Development (OECD) and the Council on Environmental Cooperation, formed as a result of the *North American Free Trade Agreement*
- Served as Canadian negotiator in the development of a transboundary agreement with the USA and Mexico under the auspices of the Council on Environmental Cooperation

Federal Environmental Assessment and Review Office, 1978 to 1994
Various positions

- Served as panel manager of review panels from 1978 to 1983 for federal reviews of:
    - the Eldorado Uranium Hexafluoride Refinery, Ontario;
    - Eldorado Uranium Refinery, Saskatchewan;
    - Arctic Pilot Project (Northern component) and
    - as co-manager of joint review panels with Quebec and Nova Scotia on the review of an LNG terminal for the Arctic Pilot Project.
- Chaired federal review panels from 1983 to 1993 for reviews of:
    - CN Rail Twin Tracking Program, British Columbia
    - Fraser-Thompson Corridor Review, British Columbia
    - Northern Diseased Bison, Northwest Territories
    - Rafferty Alameda Dam, Saskatchewan
    - Runway expansion at Pearson International Airport, Ontario
- Co-chaired a joint federal/New Brunswick review panel of the Second Nuclear Reactor at Point Lepreau, New Brunswick in 1985
- Provided advice to staff on procedures for review panels
- Developed guidelines for the preparation of environmental impact statements and reviewed environmental impact statements
- Developed the participant funding program for review panels
- Involved in the establishment of terms of reference for review panels and the selection of members for review panels
- Delivered training programs on environmental assessment for federal employees
- Led Canada-wide consultations on improving the federal environmental assessment process in 1987
- Provided advice and input to the development of the Act
- Developed the Environmental Partnership Fund program (a funding program to encourage environmental enhancement projects on a cost shared basis with the federal government) for Environment Canada.

- Consultant to the World Health Organization on environmental assessment matters in India and Indonesia in 1979 and 1981 respectively
- Chaired a United Nations working group that developed the *Convention on Environmental Impact Assessment in a Transboundary Context* (the Espoo Convention), completed in 1991

United nations Economic Commission for Europe, Geneva Switzerland, 1975 to 1978
Environmental Affairs Officer

- Served as a member of the secretariat to international meetings on environmental issues
- Prepared various background reports for meetings on environmental impact assessment, environmental policies and strategies and on waste management

Environment Canada, Winnipeg, 1971 to 1975
Senior Project Engineer

- Developed environmental monitoring programs
- Gathered data on best available technology from industrial sites to assist in the development of effluent regulations under the Fisheries Act
- Developed enforcement and compliance programs with industry for effluent discharges
- Provided advice to federal departments on the environmental effects of various industrial projects
- Investigated and recommended improvements to air emissions, effluent discharge and waste management practices at federal facilities in Manitoba, Saskatchewan and north western Ontario

National Health and Welfare, Public Health Engineering, 1970 to 1971
Project Engineer

- Examined and reported on the adequacy of water supply and waste treatment systems at federal facilities and recommended improvements

The Proctor and Redfern Group, Consulting Engineers, 1966 to 1970
As a student and a junior engineer

- Involved in the design and construction of municipal infrastructure and roads and highways

REVIEW PANEL REPORTS AND RECENT REPORTS AND PUBLICATIONS

1. Federal Environmental Assessment Review Office, *CN Rail Twin Tracking Program, British Columbia, Report of the Environmental Assessment Panel*, 1985
2. Canada and the Province of New Brunswick, *Second Nuclear Reactor Point Lepreau, New Brunswick, Report of the Environmental Assessment Panel*, 1985
3. Federal Environmental Assessment Review Office, *Fraser-Thompson Corridor Review, Report of the Environmental Assessment Panel*, 1986
4. Federal Environmental Assessment Review Office, *Northern Diseased Bison, Report of the Environmental Assessment Panel*, 1990

5. Canadian Environmental Assessment Agency and the Alberta Energy Resources Conservation Board, *Encana Shallow Gas Infill Development Project, Canadian Forces Base Suffield National Wildlife Area, Alberta, Report of the Joint Review Panel,* 2009
6. Canadian Environmental Assessment Agency, *Prosperity Gold-Copper Mine Project, Taseko Mines Ltd, British Columbia,* Report of the Federal Review Panel , 2010
7. Connelly, Robert, *Environmental Assessment in Federations, Lessons for Canada*, prepared for the Major Projects Management Office, Natural Resources Canada, 2009
8. Connelly, Robert, *Environmental Assessment in Federations*, Prepared for the Forum of Federations, (to be published) 2011
9. Connelly, Robert, *Canadian and International EIA Frameworks as they apply to Cumulative Effects*, Environmental Impact Assessment Review, 2011

EDUCATION AND PROFESSIONAL DEVELOPMENT

Education:

- BASc (Civil Engineering) University of Waterloo, Waterloo, Ontario, Canada, 1970

Memberships and Associations:

- Professional Engineers, Ontario
- International Association for Impact Assessment
- Ontario Association for Impact Assessment
- Association of Professional Executives of the Public Service of Canada

Languages:

- English and French

Awards:
Received the Rose Hulman award, issued by the International Association for Impact Assessment in recognition of my contribution to and leadership in environmental assessment within Canada and internationally.

5.2 Annex II - Key Developments in Canada's Environmental Assessment Regime

December 1973	Cabinet Directive creating the Federal Environmental Assessment and Review Process
February 1977	Second Cabinet Directive on the Environmental Assessment and Review Process
June 1984	*Environmental Assessment and Review Process Guidelines Order*, issued
June 1990	Bill C-78, *an Act to Establish a Federal Environmental Assessment Process,* given first reading
June 1992	Bill C-13, *an Act to Create a Federal Environmental Assessment Process,* given Royal Assent
December 1994	Bill C-37, *An Act to amend the Canadian Environmental Assessment Act*, given Royal Assent
January 1995	*Canadian Environmental Assessment Act*, proclaimed
June 2003	Consequential amendment by the *Species at Risk Act* to the definition of "environmental effect" under the *Canadian Environmental Assessment Act*
October 2003	Bill C-9, *An Act to amend the Canadian Environmental Assessment Act*, proclaimed
July 2010	Bill C-9, *Jobs and Economic Growth Act,* Part 20, Environmental Assessment, proclaimed

Note: in June 2003, the Whites Point Quarry and Marine Terminal project was referred to panel review under the *Canadian Environmental Assessment Act* after the June 2003 amendment was proclaimed.

5.3 Annex III- Joint Review Panel Process Steps