



Comparison of the British Columbia and Federal Environmental Assessments for the Prosperity Mine

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Preface

Northwest Institute (NWI) has been working towards social and ecological sustainability in northwest British Columbia since 1996. We have commissioned reports and conducted public education on a range of natural resource issues in the region. An important part of our work has been to convene meetings and workshops bringing together First Nations and community groups working on northwest resource issues.

Many proposed resource projects in northwest B.C. are subject to environmental assessment (EA). Over the last 15 years, NWI has facilitated workshops on both federal and provincial environmental assessment to increase awareness of their processes and provide information to assist in effective participation in those processes. We have provided public education on environmental assessment legislation that would provide for thorough examination of environmental, social, and economic impacts of projects.

In recent years, there has been a move to increasingly harmonize federal and provincial environmental assessment processes. Most EAs in recent years have been conducted through a joint review process. The Prosperity Mine proposal, however, received two separate assessments, resulting in quite different conclusions. This provided a unique opportunity to examine and compare the two processes and resulted in the commissioning of this report from Mark Haddock.

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Executive Summary

The Prosperity Gold-Copper Mine project proposed by Taseko Mines Limited presents a unique opportunity to compare and contrast the provincial and federal environmental assessment (EA) processes. This proposed mine in the Chilcotin region of British Columbia was approved by the BC government in January 2010 following review by the Environmental Assessment Office (EAO) and the recommendations of its Executive Director who determined that there “is only one significant adverse effect and it is limited to a discrete location” – the loss of fish and fish habitat at Fish Lake and Little Fish Lake. The executive director advised the ministers approving the project that these adverse effects were justified by “very significant employment and economic benefits” and that the proponent’s fish habitat compensation program “would go a significant way to addressing impacts to the loss of Fish Lake.”¹

By contrast, the same project was rejected by Canada in November 2010 following review by an independent panel that made more extensive findings of significant adverse effects in eight additional areas, namely to:

- grizzly bears,
- navigation,
- local tourism,
- grazing,
- a First Nation’s trapline,
- First Nations’ traditional land use and cultural heritage,
- Aboriginal rights, and
- future generations.

The federal process also came to different conclusions on fish and fish habitat, concluding that the proponent’s fish habitat compensation program was not viable, and that mitigation was not adequate, or in some cases not even proposed for other adverse effects. A summary of the different findings may be found in Appendix A.

What accounts for such divergent outcomes? This report reviews and evaluates the provincial and federal EA processes as they are disclosed in the record provided by the BC EAO and Federal Review Panel. It concludes that the major differences between the two processes may be understood by the following differences:

1. **Process:** The BC EAO process involved information meetings and a “review and comment” period in 2009, based on Taseko Mines Ltd.’s initial application. By contrast, the Federal Review Panel required further information from Taseko

¹ Recommendations of the Executive Director, December 17, 2009, p.22.

and, once the information base was found to be adequate, held public hearings in early 2010. This led to more informed discussion from all sides.

2. **Information:** The two different EA processes, and the timing of decision-making, meant that the Federal Review Panel (and hence federal Cabinet) had more complete information upon which to base their analysis. For example, the EAO did not wait for critical information from Fisheries and Oceans Canada, and from First Nations and their expert advisors, leading to deficiencies in the factual record placed before the provincial ministers.
3. **Expertise:** The Federal Review Panel was highly qualified, with each of its members being impact assessment professionals with experience of mining projects. In addition, federal agencies such as Fisheries and Oceans Canada brought considerable expertise to evaluation of the viability of proposed compensation measures (e.g. man-made Prosperity Lake), and participant funding provided by the Federal Review Panel enabled a form of peer review on several aspects of the project, neither of which were available at the time the Province approved the project. The provincial Assessment Report discloses four EAO staff on the working group for the assessment but does not indicate their qualifications or areas of expertise.
4. **Significance Determinations:** A key difference between the BC EAO and Federal Review Panel is how each assessed the significance of predicted adverse effects. Many of the impacts found to be significant by the Federal Review Panel were dismissed as insignificant by the EAO by measuring them against a large geographic area, in some cases the whole Cariboo-Chilcotin region. By contrast, the Federal Review Panel adopted established significance determination policies developed by the Canadian Environmental Assessment Authority. Some adverse effects found by the Federal Review Panel were not evaluated by the BC EAO.
5. **Mitigation and Compensation:** BC lacks clear mitigation and compensation policies, leaving the EAO somewhat rudderless when it comes to significance determinations because each and every adverse effect becomes an opportunity for negotiation. The BC Ministry of Environment developed broadly worded objectives and "performance measures" to guide compensation for the loss of Fish Lake, but key issues were deferred to future planning efforts. By contrast, the Federal Review Panel and Fisheries and Oceans Canada were guided by a long-established "no net loss" policy for the destruction of fish habitat. A July 2011 audit by the BC Auditor General recommends that the EAO "work with the Ministry of Environment to finalize a policy framework that will provide provincial guidance on environmental mitigation."
6. **Standards and Criteria:** For many environmental values there are no standards or criteria to guide decision-making in BC provincial legislation, such as those found in Canada's *Fisheries Act* and *Species at Risk Act*. This leads to

significance determinations that are highly subjective and malleable. In this assessment, the BC EAO dismissed wildlife-related concerns expressed by the provincial Ministry of Environment and missed significant adverse cumulative effects to the threatened South Chilcotin grizzly bear population.

7. **Legislation:** The BC Environmental Assessment is largely procedural and lacks many of the substantive aspects of the *Canadian Environmental Assessment Act* (CEAA). Key impact assessment concepts and terminology are not addressed or defined in the provincial legislation. There are no decision-making criteria such as those that guide responsible authorities under CEAA.
8. **Independence:** The independence of the Federal Review Panel may account for some of the differences in the outcomes. Given that the EAO found no significant adverse effects to anything other than fish and fish habitat in the face of strong evidence to the contrary, the question inevitably arises as to whether the reporting relationship of the EAO to the relevant provincial ministers subtly or indirectly affects its judgment, objectivity and neutrality.
9. **Sustainability Objective:** Sustainability is not explicitly addressed in either the EAO or Federal Review Panel assessments, but seems to be an implicit factor in the Federal Review Panel's evaluation of impacts, and is one of the purposes of CEAA. Sustainability runs almost as an implicit subtext through the reasoning process of the Federal Review Panel. There was a similar sustainability objective in the BC *Environmental Assessment Act* but it was repealed by the Liberal government in 2002.

Comparison of the British Columbia and Federal Environmental Assessments for the Prosperity Mine

1. Introduction

The Prosperity Gold-Copper Mine project proposed by Taseko Mines Limited (TML) presents a unique opportunity to compare and contrast the provincial and federal environmental assessment (EA) processes. This proposed mine in the Chilcotin region of British Columbia was approved by the BC government in January 2010 following review by the Environmental Assessment Office (EAO) and the recommendations of its Executive Director who determined that there “is only one significant adverse effect and it is limited to a discrete location” – the loss of fish and fish habitat at Fish Lake and Little Fish Lake. The executive director advised the ministers approving the project that these adverse effects were justified by “very significant employment and economic benefits” and that the proponent’s fish habitat compensation program “would go a significant way to addressing impacts to the loss of Fish Lake.”²

By contrast, the same project was rejected by Canada in November 2010 following review by an independent panel that made more extensive findings of significant adverse effects, not only to fish and fish habitat but also to grizzly bears, navigation, local tourism, grazing, trapline, First Nations’ traditional land use and cultural heritage, Aboriginal rights and future generations. The federal process also concluded that the proponent’s fish habitat compensation program was not viable, and that mitigation was not adequate, or in some cases not even proposed, for other adverse effects.

Factors that make a comparison study particularly useful in this instance include:

- The fact that we are dealing here with a single project, rather than attempting comparison across project types with different settings and varied nuances;
- The two processes adopted the same terms of reference approved jointly by BC and Canada, and responded to the same information and analysis submitted by the proponent in March 2009;
- Both processes involved technical assessment by government agency experts and decision-making by elected Cabinet ministers. The main difference is that findings on impacts were made by in-house staff of the Environmental Assessment Office (EAO) provincially, and federally by independent experts

² Recommendations of the Executive Director, December 17, 2009, p.22.

appointed to a review panel by the Minister of the Environment (Federal Review Panel); and

- Both levels of government share constitutional obligations toward First Nations yet came to very different conclusions on the significance of impacts to Aboriginal rights, traditional land use and cultural heritage.

The Northwest Institute for Bioregional Research commissioned this review to gain insight into the rationale for such divergent outcomes. In theory, environmental assessment should be a scientifically credible endeavour that is capable of reproducible results when carried out by qualified experts. Differences in expert opinion are to be expected, and some value judgments are inevitable when making determinations about the significance of adverse effects of a project. The purpose of environmental assessment is to apply fact-finding skills, predictive methods and critical thinking to identify the potential adverse impacts of a project or action so decision-makers can make informed choices. A rigorous process will produce a rationale that discusses the findings and range of opinions and makes it clear how and why the assessors arrived at a particular conclusion. If assessment processes are to be neutrally-administered, objective, technically rigorous exercises analyzing the facts of a given situation, they should produce more or less the same results for decision-makers, regardless of the jurisdiction or agency conducting the assessment. When two assessment processes examining the same project and using identical terms of reference for the assessment produce such radically different results, as has happened with the Prosperity assessment, it stands to reason that they can't both be correct.

This review is based on the record of the two assessments as it was disclosed by the BC EAO and Federal Review Panel. Not being a scientist or impact assessment professional, I cannot pass judgment on the validity of the expert information presented and evaluated in the assessments. The multi-disciplinary nature of environmental assessment makes it a highly complex field and likely no individual is qualified in each and every area of expertise necessary to fully evaluate a complex mine proposal such as Prosperity. However, just as courts have judges who are not experts in science but who apply a methodology for credible fact-finding, the field of impact assessment has developed over decades to bring a thoughtful methodology to the prediction and evaluation of impacts to a broad suite of societal values. Underlying EA is the assumption that elected politicians have the democratic authority to make choices and preferences, but those decisions should be informed by accurate information about the likely consequences.

In the face of such contradictory findings on the significance of adverse effects of the Prosperity Mine and the adequacy of proposed mitigation measures, my approach has been simply to review how each assessment body evaluated the evidence before it, and attempt to understand the rationale and internal logic for the conclusions reached.

What might account for such divergent findings and outcomes for this proposed mine? At first glance, the possibilities could include:

- Differences in the provincial and federal legislation governing environmental assessment;
- Differences in the evidence considered by assessors;
- Differences in the criteria (or lack thereof) used by each process;
- Differences in the expertise of assessors;
- Differences in subjectively held values of the analysts;
- Political influences within the EA process.

Some of these, particularly the last two, would be difficult to determine without inside knowledge or undue speculation. However, the record for each process reveals considerable evidence of the factors that help explain what information was considered and how it was weighed or evaluated.

Following a brief discussion of the history of the Prosperity Mine assessments, this review will focus on the substantive aspects of the assessments and will attempt to explain how the two processes arrived at such different conclusions concerning the environmental impacts of the proposed mine.

2. Why Were There Two Separate EA Processes?

Proponents and industry associations routinely criticize environmental assessment processes as amounting to unnecessary duplication and red tape, particularly when two levels of government are involved and the processes proceed on different tracks. In fact, the very first point made by the Mining Association of BC and others to the federal government's Red Tape Reduction Commission was that:

Duplicative and inefficient environmental assessment (EA) processes remain the most significant challenge facing the BC mining sector at this time. Given the existence of federal and provincial environmental assessment regimes, mine development projects are often subject to disconnected, overlapping and duplicative EA review processes.

The 2010 Speech from the Throne in the BC Legislature echoed this point:

The government will work with other provinces and the federal government to establish one process for one project. There is no time to waste and Canadian taxpayers cannot afford the extra costs, the uncertainties and the lost jobs that are the products of the current system.

This is not a new issue, as the provincial and federal governments had already in 2004 entered the Canada-British Columbia Agreement for Environmental Assessment

Cooperation.³ The Agreement promises cooperation on several aspects of assessments, including:

- Common information requirements
- Coordinated decision-making
- Coordination of Aboriginal participation in cooperative EA
- Dispute management

The Canadian Environmental Assessment Agency has stated that “Under the Agreement, projects that require an environmental assessment by both the Government of Canada and the Government of British Columbia will undergo a single assessment, administered cooperatively by both governments.”

Against this backdrop it might seem surprising that the provincial and federal assessments for the Prosperity Mine ultimately proceeded on different tracks. From May 2007 planning for a harmonized assessment process was taking place and terms of reference for a joint review panel were under development. However, shortly after both governments rejected the Kemess North gold-copper mine proposal in March 2008 by adopting a joint review panel recommendation to not approve it, Taseko Mines Ltd. began objecting to a review panel on the grounds that:

- “the proposed process puts the future of a billion dollar mine in the hands of 3 unelected, unaccountable individuals” (*i.e. the review panel members*)
- “third party influence will jeopardize the delivery of an unbiased examination of the Project”
- “The proposed process places an excessive emphasis on consideration of established or asserted Aboriginal rights or title within the scope of environmental assessment.”⁴

Within four days of receiving these objections the BC EAO began backing away from a cooperative joint review panel process and proposed a separate provincial process, which Taseko indicated a preference for. Despite opposition from First Nations, in June 2008 Minister of Environment Barry Penner ordered the EAO to carry out its own separate assessment. His order simply states that the joint review panel process was “not warranted in the circumstances.”

Nevertheless, both governments agreed to common terms of reference for the assessment in December 2008. Federal Minister of the Environment Jim Prentice maintained Canada’s commitment to an independent review process by appointing panel members in January 2009.

The Tsilhqot’in National Government felt betrayed by BC’s decision to abandon the joint review panel process, and thereafter refused to participate in the provincial EAO-led

³ The agreement may be viewed at <http://www.ceaa.gc.ca/default.asp?lang=En&n=04A20DBC-1>.

⁴ Correspondence dated May 9 2008 from B. Battison, Taseko Mines Ltd. to S. Burgess, CEAA and G. Alexander, BC EAO.

process. This history is important to understanding the outcomes of the assessments because, as will be discussed more fully below, the Federal Review Panel received considerable evidence from First Nations about their traditional and current use of lands and resources for the effects of the mine on cultural heritage during its hearings. However, by this point in time the Province had already approved the project and provincial agencies refused to participate in the review panel hearings. The Federal Review Panel commented that:⁵

[T]he majority of the information related to current use and cultural heritage was received during the public hearing process. This information was extremely valuable for all participants to understand how the Project would impact the current use of the region by First Nations people.

The Panel notes that British Columbia reached conclusions of non-significance with regards to First Nations. British Columbia completed its review process in December 2009 and therefore, did not have the benefit of information collected during the federal Panel review process from January to May 2010.

[G]iven the limited participation of First Nations in the provincial working group, the Province also did not have the benefit of the extensive views and information presented by First Nations during the public hearing regarding the effects of the Project on their current use of lands and resources for traditional purposes, on cultural heritage and on potential and established Aboriginal rights and title.

The Federal Review Panel devoted a full page of its report to additional problems resulting from the lack of coordination between the provincial and federal processes, including the observations that:⁶

British Columbia has concluded that the Project would have significant adverse effects on fish and fish habitat but that such effects would be justified. However, given that the Province completed its review in December, 2009, it did not have the benefit of the final federal departmental positions and expertise on alternative means of carrying out the Project, the feasibility of the proposed fish and fish habitat compensation plan, surface and groundwater quality and quantity, health effects, effects on migratory birds and species at risk, as well as expertise brought to the public hearing by various participating organizations.

[T]he Panel received input from provincial ministries while the provincial working group was functioning, but participation of the provincial ministries ended when the Environmental Assessment Office submitted its report; therefore, during the public hearing, the Panel was not able to receive clarification regarding provincial ministries mandates, the issues they raised, or to take advantage of their expertise;

It seems clear that BC did not comply with the spirit and intent of the 2004 Cooperation Agreement. While it did agree to a common terms of reference for the project, the BC process did not coordinate decision-making or Aboriginal participation as contemplated

⁵ Federal Review Panel Report, p.174.

⁶ Federal Review Panel Report, pp.30,241.

in the agreement, and does not seem to have employed its dispute resolution procedures to any meaningful degree.⁷

3. Differences in Public Participation Process

As a result of the two separate EA processes there was a significant difference in the extent to which the public was invited to participate in the assessment, which in turn explains the different outcomes to some degree.

The BC EAO adopted its standard open house and 60 day review and comment period in the “application review stage” of its process. This consisted of two open houses⁸ held in early 2009 attended by about 600 people and written comments received during a 60-day review period from March 26 to May 25, 2009. The federal Canadian Environmental Assessment Agency attended and cooperated with these processes leading the BC EAO to report that “The provincial and federal processes were coordinated for the review of the Terms of Reference and submission of the Application and joint public comment periods were held at both stages.” The EAO’s “review and comment” process has been widely criticized as inadequate by the public in the past.⁹

However, there was a significant difference between the two processes in that the provincial effort ended with receipt of public comments on the initial EA application, while the Federal Review Panel process took this as initial feedback to inform the panel on the issues that needed to be addressed at future public hearings where it would hear from all sides.

After reviewing the application and agency and public comments, the Federal Review Panel was not satisfied that the information was adequate to inform meaningful public input until February 2010 and required the proponent to submit additional information to respond to the issues and concerns raised. Once it determined the information was adequate, the review panel then held 30 days of public hearings between March and May 2010 which were attended by about 2,700 people, about 320 of whom were invited to make presentations. There was an opportunity to ask questions of witnesses, though it did not amount to cross-examination in a court-like adversarial process.

It is clear from the Federal Review Panel report that evidence it received during the hearing influenced its deliberations. But by this time the Province had already approved the project on January 14, 2010 and refused to participate in the Panel hearings. The upshot of this is that the Province made its decision on the basis of a deficient

⁷ Despite this history BC and Canada reaffirmed the 2004 Agreement in December 2008 and agreed again to “support and promote activities intended to ensure effective and integrated delivery of cooperative environmental assessments” and to “explore and encourage the use of tools and mechanisms that are available to better integrate their respective environmental assessment requirements into a single process.”

⁸ A third was scheduled for Alexis Creek but was cancelled due to protests by First Nations at the event.

⁹ See *Environmental Assessment in British Columbia*. Environmental Law Centre, University of Victoria, 2010. pp.36-40.

evidentiary record. In deciding that it had all the information it needed to make a decision, BC closed its mind to the possibility of new evidence coming forward. It was some of this evidence that the Federal Review Panel relied upon to make its broader findings of significant adverse effects.

4. Comparison of Findings

This section will review the findings of the provincial and federal EA processes on issues where they reached different conclusions on significant adverse environmental effects and on the adequacy of proposed mitigation or compensation for those adverse effects. The focus here will be on the analyses undertaken by the BC EAO and the Federal Review Panel rather than the political decision-makers because it is at this technical level that significance determinations were made, whereas the political-level decision making for the project was focused more on whether the project was “justified” despite the impacts. The primary purpose of the EA process is to deliver accurate information to decision makers so they are properly advised as to the consequences of their decisions.

There was a slight difference between the mandates of the EAO and Federal Review Panel in terms of ability to assess whether the project was justified, but it is not of consequence for this analysis. Simply put, the BC EAO was permitted to draw conclusions and make recommendations to ministers concerning the justifiability of the project, whereas this Federal Review Panel was only permitted to “report information to assist decision makers with respect to the justifiability.”

Other federal review panels have not been so limited in the past. For example, the panel for the Kemess North copper-gold mine concluded that the proposed mine’s impacts were significant and not justified and recommended that it not be approved. Section 34 of the *Canadian Environmental Assessment Act* (CEAA) requires review panels to prepare a report setting out “the rationale, conclusions and recommendations of the panel relating to the environmental assessment of the project,” subject to the panel’s terms of reference.

The limitations in the Prosperity panel’s mandate may have resulted from TML’s earlier criticism that the panel process would put “the future of a billion dollar mine in the hands of 3 unelected, unaccountable individuals.” The CEAA would not allow that outcome regardless as review panels do not have decision-making authority, but the limitations on the review panel are of little consequence for our purposes: the most important issue is the analysis and rationale supporting the conclusions as to significant adverse impacts and consideration of mitigation and compensation.

The federal EA process under the CEAA has developed a considerable body of policy guidance for practitioners undertaking assessments. The CEAA itself contains far more detail than the BC *Environmental Assessment Act* both in terms of the EA process and the definition of key terms. Consideration of whether this explains any differences in analysis will be left to later in the report; however, it is worthwhile to mention here that

the BC EAO purported to follow very similar criteria to CEAA when arriving at significance determinations. The Federal Review Panel explicitly set out the criteria it used in determining significance on page 25 of its report:

The Panel has followed the Canadian Environmental Assessment Agency's reference guide entitled "Determining Whether a Project is Likely to Cause Significant Adverse Environmental Effects" (November 1994) to assist it in this regard...

The Panel has used the following criteria to assist it in determining whether the adverse effect might be significant after mitigation measures have been considered:

- magnitude - the severity of the effects;
- geographic extent - whether the effects are local or regional;
- duration and frequency – whether the effects are long term or temporary;
- reversibility - whether the effects are reversible;
- ecological context - whether the location has been previously affected or is ecologically fragile; and
- dose/exposure - would the dose or exposure result in an unacceptable level of risk.

To determine whether any significant adverse environmental effects are likely, the Panel used the following criteria:

- probability of occurrence - If there is a high probability that the identified significant adverse effect would occur, then it is likely; and
- scientific uncertainty - this involves determining confidence levels based on statistical methods or best professional judgement.

The BC EAO reports that it adopted nearly identical criteria.¹⁰ While the BC criteria do not explicitly mention the scientific uncertainty factor, the report itself addresses uncertainties in environmental conditions and impact prediction throughout. When the two assessment reports are read as a whole, it does not appear that different approaches to scientific uncertainty are the reason for such different conclusions between the two assessments: rather, it is whether key evidence was considered, the degree of attention paid to relevant evidence, and the rigour of the analytical process.

¹⁰ Prosperity Gold-Copper Project Assessment Report, BC Environmental Assessment Office, December 17, 2009, p.25. Hereafter referred to as the "EAO Assessment Report."

Issue #1: Fish and Fish Habitat

Summary of Findings	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> "The loss of Fish Lake and Little Fish Lake is a one-time, permanent event with a significant adverse effect on fish and fish habitat at that location." These impacts "should be considered justified" because:¹¹</p> <ul style="list-style-type: none"> • "The Proponent's Fish Habitat Compensation Program [to create a man-made Prosperity Lake] would go a significant way to addressing impacts to the loss of Fish Lake." • "MOE supports the compensation plan and has indicated it will adequately address the relevant policy goals" 	<p><u>Finding:</u> "The Project would result in a significant adverse effect on fish and fish habitat in the Teztan Yeqox (Fish Creek) watershed. The Panel cannot recommend any measures that would mitigate the significant adverse effects..." In assessing the proposed compensation plan the panel noted:</p> <ul style="list-style-type: none"> • "there has been no experience with re-creating an ecosystem in which all these components function together on a self-sustaining basis" • The "plan would require ongoing human intervention in the long term" and "could become a burden to future generations" because the province only required Taseko Mines Ltd. to operate it "for the life of the mine." • "It would not replace the existing fish and fish habitat on a like for like basis" • "the Project's effects on fish and fish habitat would be high magnitude, long-term and irreversible and would include the loss of an area that was stated to be of value as both a First Nation food fishery and recreational fishery." • "the fish and fish habitat compensation plan poses an unacceptable level of risk that raises considerable doubt regarding its ability to meet the requirements of Fisheries and Oceans Canada's No Net Loss policy and to be a functioning, self-sustaining system in the future."

At first glance it appears that the BC EAO and Federal Review Panel reached similar conclusions on the effects of the mine on fish and fish habitat because they both found the effects to be significant. In a press release on July 5, 2010 Taseko Mines Ltd. claimed that "The Panel findings are very similar to the conclusions reached in the Provincial environmental assessment process -- that the loss of Fish Lake and adjacent meadows constitutes a significant adverse effect."

¹¹ Recommendations of the Executive Director, December 17, 2009, pp.21-22.

However, on closer examination it is clear that the two EA processes came to very different conclusions on this issue. The reports of the BC EAO and Federal Review Panel disclose strong differences on the following six issues:

1. Permanent loss of fish habitat:

The BC EAO found significant adverse effects to Fish Lake and Little Fish Lake, but seemed to discount fish and fish habitat impacts elsewhere in the watershed. By contrast, the Federal Review Panel found significant adverse effects throughout the watershed, including in lower, middle and upper Fish Creek. This mirrors a difference of opinion between MOE and Fisheries and Oceans Canada on the value of creek habitat.

2. Direct loss of fish: The BC EAO discounted the significance of the number of fish that would be destroyed by the project, finding that the creation of an artificial lake would result in an improved fishing experience. It held that "The productive capacity of Prosperity Lake is expected to be slightly less than Fish Lake, though it has been designed to produce larger fish in order to offer a better angling experience and achieve regional objectives for fisheries enhancement."

By contrast, the Federal Review Panel found the loss of fish to be significant: it found that "other than the 12,000 fish that would be salvaged, approximately 90,000 rainbow trout from Teztan Biny (Fish Lake) and Y'anah Biny (Little Fish Lake) would be lost; additionally, the fish and fish habitat in these lakes and in middle and lower Teztan Yeqox (Fish Creek) would also be lost."

3. Adequacy of Fisheries Compensation Plan: A major difference between the two assessments is how Taseko Mines Ltd.'s proposed fisheries compensation plan was assessed in terms of adequacy and viability. The BC government does not have a compensation policy for loss of fish habitat, but indicated early in the process that compensation would be required for the loss of Fish Lake. Rather than adopting Fisheries and Oceans Canada's longstanding No Net Loss Policy in place since 1984, the BC Ministry of Environment (MOE) developed its own "performance measures" specifically for this mine project, and later determined that these were met by the proposed compensation plan.

The performance measures are actually goals or objectives for the compensation plan to meet in the future, addressing the need to: 1) maintain the genetic stock, 2) development and maintain environments of "similar or better productive capacity for trout," 3) have a healthy, self-sustaining trout population, and 4) a trout fishery for First Nations and the public that is similar in character to what exists at Fish Lake. Because these objectives are so broadly stated, and are more qualitative than quantitative, they are clearly not equivalent to Fisheries and Oceans Canada's No Net Loss Policy and the decision-making rules that have developed around implementation of that policy. Fisheries and Oceans Canada had numerous questions about the rationale, underlying

principles and measurement of these objectives and the EAO was aware of these concerns.¹²

It is clear that the compensation plan was still a work-in-progress at the time of provincial approval: just days before the Assessment Report was signed off by the EAO, Taseko and MOE agreed in a memorandum to some refinement of the performance measures. However, these newly stated performance measures are not substantive in nature, and simply add some detail to the broadly stated objectives. As the document itself states, its purpose is to "Aid in the assessment of when and how each of the four objectives has been met."¹³ In other words, the adequacy and viability of the fisheries compensation plan itself was still not known at the time of provincial approval and was deferred to some date in the future – likely the construction phase.

One difference between the two assessments is that the Federal Review Panel analysis was based on a revised fish and fish habitat compensation plan entitled "Feasibility Design of Fisheries Compensation" report submitted by Taseko Mines Ltd. on April 13, 2010, some three months after provincial approval. This plan was prepared following probing queries by Fisheries and Oceans Canada about the adequacy and feasibility of the 2009 compensation plan. It proposed more compensatory habitat than the Environmental Impact Statement upon which the Province based its approval, but still did not meet Fisheries and Oceans Canada's longstanding "no net loss" policy.

BC EAO Analysis: The BC EAO documents its analysis in two reports: an "Assessment Report" that provides a detailed analysis of the issues considered by EAO, as well as a "Recommendations Report" prepared by the Executive Director, which summarizes the Assessment Report, reports findings as to significant adverse effects, and makes recommendations to the two ministers who will approve the Environmental Assessment Certificate. On this issue, both the EAO's Assessment Report and the Recommendations Report of the Executive Director shed little light on how or why Taseko's compensation plan was determined to be adequate. The Executive Director's report does not discuss the issue much, and the Assessment Report mostly describes the measures proposed in the proponent's fisheries compensation plan and indicates that MOE was satisfied with them. There is no independent analysis by the EAO, nor is any such analysis by the Ministry of Environment offered in support. The EAO was fully briefed on Fisheries and Oceans Canada's numerous concerns about this issue,¹⁴ but it

¹² Correspondence dated July 22, 2009 from R.Reid, Fisheries and Oceans to B.Battison, Taseko Mines Limited. See also EAO Assessment Report, p.59.

¹³ Memorandum dated December 4, 2009, Taseko Mines Ltd., "RE: Taseko Mines Ltd. Prosperity Project: Fish and Fish Habitat Compensation Plan Performance Measures."

¹⁴ The EAO Executive Director's recommendations report to the ministers states that "The federal government has not expressed a view as to whether the issues examined by its agencies have been sufficiently addressed through project design changes, mitigation measures and other commitments agreed to by the Proponent. In particular, DFO has not yet given an indication as to what it would consider appropriate as fisheries compensation for the loss of Fish Lake and Little Fish Lake" (p.17). What readers might not appreciate from this December 2009 statement is that Fisheries and Oceans Canada had been making its concerns about compensation known consistently since at least April 2009 through correspondence to the EAO, Taseko Mines Ltd. and the Federal Review Panel. Some readers

does not address, resolve or answer them other than to state that “the EAO notes there is risk in establishing successful new habitat, even with the best plans.”¹⁵

Federal Review Panel Analysis: By contrast, the Federal Review Panel undertook a more extensive examination of evidence on the adequacy of the fisheries compensation plan as this was a key issue in the assessment. It heard detailed evidence from Fisheries and Oceans Canada and several other fisheries experts that challenged Taseko Mines Ltd.’s proposed compensation plan both in terms of the amount and quality of proposed replacement habitat, the predicted benefits, the likelihood of success, the long term maintenance requirements and overall technical and financial feasibility. In addition to these detailed matters, the Panel also examined the overall impacts of the project to the ecosystem as a whole, as what Taseko was proposing was not just an artificial lake for a “put and take” fishery with stocked fish, but a functional aquatic system for growth, reproduction and spawning that was to endure over time.

The Federal Review Panel noted that the Fisheries Compensation Plan posed substantial risks based on the following factors:¹⁶

- the failure to meet Fisheries and Oceans Canada’s “no net loss” policy;¹⁷
- uncertainty regarding whether the proposed spawning channel would function without regular maintenance and therefore whether it would be viable in the long term;
- the loss of primary productivity as a result of the conversion of existing creek and stream habitat to a shorter engineered channel;
- the lack of outlet spawning habitat in Prosperity Lake;
- the potential that Taseko may have underestimated Teztan Biny (Fish Lake) productivity and overestimated the productivity of the proposed Prosperity Lake;
- uncertainty regarding whether Prosperity Lake would support enough individual rainbow trout to reach the target population;

might conclude that Fisheries and Oceans Canada was sitting on the fence or dragging its feet, but the record suggests it was merely pressing for the answers it needed to determine whether its No Net Loss Policy could be met in order to justify an authorization to destroy fish habitat under section 35 of the Fisheries Act. As noted above, Taseko Mines Ltd. eventually submitted a revised compensation plan and “Feasibility Design of Fisheries Compensation” study in April 2010, but by this time the Province had already granted the Environmental Assessment Certificate.

¹⁵ EAO Assessment Report, p.59.

¹⁶ Report of the Federal Review Panel, p.96-97.

¹⁷ Several factors led to this conclusion: 1) at the most basic level, more riparian habitat would be lost as a result of the Project than would be created through the fish and fish habitat compensation plan throughout the life of the mine, 2) only after the mine was closed and remediated was Taseko proposing to meet habitat replacement at a 1:1 ratio (though some experts indicated it would only amount to 0.8:1), 3) the compensation plan involved converting the tailings storage facility and the open pit into fish habitat, but the Panel noted that the water quality may not be of sufficient quality to support fish; 4) the compensation plan did not replace like-for-like habitat, for example, it would still result in a loss of almost 50% of littoral habitat which was likely an important contributor to the high productivity of Fish Lake, and 5) given the high risks associated with the viability of artificial habitat, the plan did not meet the “no net loss” policy’s hierarchy of preferences or compensation ratios expected for high risk proposals.

- irreversible changes would be made to Teztan Biny (Fish Lake), Y'anah Biny (Little Fish Lake) and Teztan Yeqox (Fish Creek) before success of the proposed plan has been demonstrated;
- uncertainty regarding whether aquatic vegetation could be established in a relatively short time frame;
- the warmer temperature profile of the headwater retention pond may affect the survival of fish in the spawning and rearing channel;
- uncertainty regarding whether productive populations of rainbow trout could be established in the headwater diversion channel in the absence of spawning channels;
- local fishing opportunities may not be replaced; and
- uncertainty regarding the suitability of water quality in the tailings storage facility and Pit Lake to support fish populations in the post-closure period.

The Review Panel concluded that "while there has been some success with stocking lakes and creating spawning and rearing channels individually, there has been no experience with re-creating an ecosystem in which all these components function together on a self-sustaining basis."

4. Longevity of Commitment to Fisheries Compensation Works: Another major difference between the provincial and federal assessments is consideration of the time frame for which Taseko Mines Ltd.'s would be obliged to maintain and operate all of the highly engineered works that comprised its Fisheries Compensation Plan. These include major water diversions, stream channels, dams, water impoundments and artificial lakes. The BC EAO proposed, and the ministers ultimately agreed when approving the Environmental Assessment Certificate, that Taseko would only have to operate and maintain these for the "life of the mine" (which was determined to be 20 years for the purposes of the assessment, even though Taseko indicated that market increases in the price of gold and copper could allow it to operate for 33 years).¹⁸ This is a rather astounding limitation in the Province's regulation of the mine that could shift enormous costs onto the public purse if they were maintained over time, or if not, could result in the loss of fisheries compensation measures after mine closure.

Fisheries and Oceans Canada indicated to the Federal Review Panel that "while the department did not have a cost estimate from Taseko for the proposed compensation works, it would expect that it would be a fairly significant expense in the order of many millions of dollars" and that "it would require the costs of the proposed fish and fish habitat compensation plan, as well as the associated long-term monitoring to be captured in an irrevocable letter of credit."¹⁹

After hearing from additional expert witnesses on this point, the Federal Review Panel concluded that "the proposed fish and fish habitat compensation plan would require

¹⁸ EAO Assessment Report, pp.22, 134; Environmental Assessment Certificate #M-09-02, Condition 9.1.

¹⁹ Report of the Federal Review Panel, p.90.

ongoing human intervention in the long term” and expressed concern that the proposed works “could become a burden to future generations as it would likely require ongoing maintenance and re-stocking of fish on a continuing basis for an undetermined period.”²⁰

5. Importance of fishery to First Nations: The BC EAO acknowledged that the loss of Fish Lake would interfere with “accepted aboriginal fishing rights,” but discounted the significance of this interference by pointing to other areas where First Nations could fish, and finding that Taseko’s fisheries compensation plan would ensure that any impact “would be minimized and that significant such opportunities would remain.” The executive director held that the impacts were justified because:²¹

- The potential interference is minimal such that the rights are meaningful notwithstanding the loss of Fish Lake;
- The meaningful process of, and opportunities for, consultation and accommodation to date, including measures to mitigate the loss of the lake; and
- The regional and provincial importance of the proposed project.

The executive director also noted that, in pending litigation, “the Province does not agree that members of the Tsilhqot’in Nation have a distinct and separate existing aboriginal fishing right specifically at Fish Lake” and that it “denies that the destruction of fish habitat at Fish Lake...would amount to an “extinguishment” of aboriginal fishing rights.”²² Given that provincial lawyers had taken these positions in court-filed pleadings, it is worth asking whether the EAO, as an agency of the provincial government rather than an independent review panel, felt free to find that the interference with aboriginal fishing rights was not justified.

By contrast, the Federal Review Panel found that “While other lakes exist in the area for First Nation's use, the Teztan Biny watershed was considered to be an area of particular importance for the Tsilhqot’in for gathering and for its cultural values. In the Panel's view, fishing in other lakes as an alternative would not have the same meaning.” The review panel took note of evidence that trout from Fish Lake are “an important source of food when salmon stocks are low.” It stated:²³

The Panel notes that the permanent loss of Teztan Biny (Fish Lake) would remove an existing First Nation food fishery and that the fish found in Teztan Biny were an important source of fish for their sustenance. While other lakes exist in the area for First Nation's use, the Teztan Biny watershed was considered to be an area of particular importance for the Tsilhqot’in for gathering and for its cultural values. In the Panel's view, fishing in other lakes as an alternative would not have the same meaning.

²⁰ Report of the Federal Review Panel, p.97.

²¹ Recommendations of the Executive Director, December 17, 2009, pp.15-16.

²² Recommendations of the Executive Director, December 17, 2009, pp.15.

²³ Report of the Federal Review Panel, p.96.

This and other differences in how the two assessments considered Aboriginal rights and interests will be addressed further in Issue #8 below.

6. Importance to recreational and sports fishers:

The BC EAO concluded that although the recreational fishery at Fish Lake would be impacted the mine project would result in an overall improvement in fishing opportunities by the construction of Prosperity Lake. The Assessment Report noted that "Fish Lake hosts up to 653 recreational angling days with up to 4,900 fish caught annually," but diminished the significance of this loss by pointing to other fishing opportunities in a larger "regional study area" (RSA).²⁴ It was acknowledged that a limiting factor was the current condition of the access road, but the potential for a larger recreational and sports fishery at Fish Lake was not assessed. The EAO stated: "The loss of Fish Lake, however, is not anticipated to have an effect on sport fishing overall in the RSA as the total fish effort and catch represented by Fish Lake is minor (0.4 percent of RSA angler effort) and displaced activity could be absorbed by other area lakes." Although the man-made Prosperity Lake would have less productive capacity than Fish Lake, the EAO accepted Taseko's statement that "it has been designed to produce larger fish in order to offer a better angling experience and achieve regional objectives for fisheries enhancement." The EAO concluded that the man-made lake and associated stream habitat "should increase opportunities for First Nations' fisheries and anglers."²⁵

The Federal Review Panel, on the other hand, focused on the quality of the fishing experience at Fish Lake. It noted that Fish Lake is "a valued recreational fishery due to the relative ease of catching fish and the pristine surrounding." Taseko Mines Ltd. itself had acknowledged that the fishing experience at Teztan Biny could not be easily replicated. The Panel concluded that "while stocking Prosperity Lake with approximately 20,000 trophy-sized rainbow trout would meet provincial fisheries objectives, it would create a different fishing experience." The Panel also addressed the loss of approximately 90,000 rainbow trout that would be lost as a source of food for First Nations and for recreational fishers. It found that "While there are other lakes that could be used by recreational fishers, in the Panel's view, they would not have the same fishing experience that was stated to be found at Teztan Biny." More practically, the Federal Review Panel questioned whether recreational fishers would want to fish there: "Once Prosperity Lake was stocked with fish, there would be no certainty that fishers would return to the new lake to fish."²⁶

²⁴ The RSA was defined as "All water bodies and watersheds within the boundary of the MOE Management Unit 5-4."

²⁵ EAO Assessment Report, pp.27,51,94.

²⁶ Report of the Federal Review Panel, p.81-83,96.

Possible Reasons for Differing Outcomes:

As can be seen, despite some claims that they were consistent, the federal and provincial assessment processes arrived at starkly different conclusions on the project's impacts to fish and fish habitat. There are several reasons for these differences:

1. The BC MOE's lack of established mitigation and compensation policy for fish and fish habitat forces the ministry to respond on a project-by-project basis. In this case, the performance measures identified by MOE were so broad and general they could easily result in an array of outcomes in terms of actual measures for fish and fish habitat mitigation and compensation. This led to a lack of rigorous evaluation of Taseko's Fisheries Compensation Plan, ultimately leading to approval of a project that was clearly contrary to Fisheries and Oceans Canada's long established Habitat Policy.

BC lacks compensation policies for other types of habitat loss as well, including for wetlands and species at risk. Addressing compensation issues by individual negotiation for each project is poor policy because it can lead to inconsistency. It puts undue pressure on MOE biologists because it forces them to continually compromise to avoid becoming the "spoiler" for a project, without the benefit of any principled backstop. It pits the professional biologists against the "political fixers" within the agency and government. It leaves proponents, consultants, working group members, EA reviewers, decision makers and the public in the dark about when compensation will be required, what the objectives are, and what is an acceptable range of outcomes. This issue has arisen in other EAO assessments, such as the Jumbo Glacier Resort project where the criteria for assessing impacts to grizzly bears varied throughout the lengthy assessment process, sliding ever downwards until the project was approved.²⁷

Significant strides have been made in assessing the adequacy of proposed habitat compensation in many jurisdictions over the last two decades. For example, "habitat equivalency analysis" (HEA) has been developed and applied in the USA and internationally to guide informed analysis of compensation for resource injuries. BC could learn from scientific literature and government policies that bring a principled and professional approach to these issues.²⁸ Of course, impact avoidance should always be the first priority in project design and EA decision-making as there are numerous difficulties and risks to providing viable and effective habitat compensation, particularly when artificial habitat is involved. Mine projects are often particularly challenging because of unavoidable habitat destruction due to the location of the minerals, the significance of the disturbance and the duration of the effects.

²⁷ *Environmental Assessment in British Columbia*. Environmental Law Centre, University of Victoria, 2010, p.52.

²⁸ For example, see *Habitat Equivalency Analysis: An Overview, Damage Assessment and Restoration Program*, National Oceanic and Atmospheric Administration, US Department of Commerce, March 21, 1995 (Revised October 4, 2000 and May 23, 2006). See also: Roach, B. Wade, W.W., 2005. Policy evaluation of natural resource injuries using habitat equivalency analysis, *Ecological Economics* 58 (2006) 421– 433.

2. The handling of this issue raises a question as to whether BC MOE has the expertise and experience necessary to assess the adequacy and viability of fisheries compensation plans. The Province does not have the constitutional authority to approve the destruction of fish habitat, although it has been assigned administrative responsibilities for freshwater fish management issues by Canada and it has a proprietary interest in freshwater fish. The “performance measures” approach taken by MOE might simply reflect the Province’s constitutional limitations and its focus on the administration of the freshwater fishery based on proprietary rights to fish in the Fish Lake watershed. British Columbians may well ask, however, why MOE seemed so ready and willing to write off such a highly productive and popular trout fishing lake and accept the adequacy of an artificial lake with so many uncertainties as to viability.

It does not appear from the records posted that a key difference of opinion between MOE and Fisheries and Oceans Canada was based on professional disagreement over the scientific issues. That is, I am not aware of an MOE equivalent to Fisheries and Oceans Canada’s diligent analysis of the fisheries compensation plan that simply arrived at a different conclusion based on differences in scientific evidence and professional judgment. Rather, the record suggests that MOE set broad objectives to be met, and then concluded they likely would be met because the proponent’s report committed to doing so, rather than through the type of detailed analysis carried out by Fisheries and Oceans Canada, independent experts appearing at the panel hearing, and the Federal Review Panel itself.

This raises a much larger issue about the agency’s increasing adoption of what it calls a “results-based” regulatory model, in which broadly stated environmental objectives are followed by “professional reliance”, i.e. trust in, and reliance upon, the expertise and professionalism of the proponent’s consultants and the disciplinary oversight of self-governing professions. This approach has become the *modus operandi* among BC resource agencies due to staff and budget cuts and the growing exodus of expertise as a result of retiring staff that are not replaced.²⁹ This may be an appropriate approach for some regulatory matters where the risk of environmental harm is low and effective remedial measures may be ordered in the event of non-compliance, but it has significant limitations when applied to large scale projects with high risk of long term environmental harm. It could be argued that the results-based professional reliance model is actually the antithesis of project-based environmental assessment, which is a precautionary planning process that aims to identify potential problems proactively so as to avoid environmental harm through specific pre-construction, permit-like requirements.

3. The Federal Review Panel had more information than the BC EAO upon which to evaluate the project. This came about from a combination of factors: 1) its insistence

²⁹ That these factors are increasingly being built into the provincial approach to natural resource regulation including EA was confirmed by a provincial representative speaking at a workshop sponsored by the International Association for Impact Assessment entitled “Perspectives on Professional Reliance in Impact Assessment” on June 23, 2011 in Vancouver.

that more information be provided by Taseko before hearings began in order to ensure that the information base was sufficient (the Province had already approved the project by this time); 2) its open 30-day hearing process allowed participants to provide oral evidence and question others on their evidence; 3) its provision of participant funding that enabled evidence to come forward, including peer review of numerous key technical reports; 4) new information from Taseko Mines Ltd. in response to questions concerning the compensation plan; 5) critique of that information by Fisheries and Oceans Canada and other participants; 6) information from First Nations concerning the importance of the fishery (this will be discussed more fully below).

The Federal Review Panel's hearing process created an environment in which information could be presented and challenged in full public view. This allowed for questioning by the panel, proponent and participants, which enabled a more open and robust fact-finding environment than the EAO's 60-day review and comment period that had concluded the previous year (May 25, 2009), well before the information available was found to be adequate by the Panel.

For example, while Taseko's consultants relied on a study by Hartman and Miles which highlighted the success of projects that constructed spawning habitat, the Tsilhqot'in National Government was able to retain Dr. Hartman to review the proposed fisheries compensation plan. He raised a number of concerns about the technical feasibility of each of the four components that made up the compensation plan and indicated that there had been misrepresentations between his findings and what was reported by Taseko.³⁰

4. Another factor that might account for differences between the two assessment outcomes is the extent of information that each process expects to be necessary to warrant project approval, and what that approval represents. The BC EAO process leads to an Environmental Assessment Certificate (EAC) with conditions to be met by subsequent permitting. The EAO is often satisfied that it can make a recommendation regarding certificate approval and defer unresolved or more detailed technical issues to the permitting stage, which is done by line agencies according to their statutory authority. This can be appropriate in some circumstances but can lead to major problems where the unresolved issues are significant threshold type issues that call out for substantive resolution before a project is given a "green light" by ministers, such as those that are determinative of significant adverse effects and the adequacy and viability of proposed mitigation and compensation measures. If any project fits into the latter category, surely it is this one.³¹

By contrast, a responsible authority under CEAA (such as Fisheries and Oceans Canada in this instance) is often faced with the need to obtain enough information to justify the decision(s) that triggered the assessment. There is no intervening certificate. In this

³⁰ Report of the Federal Review Panel, pp.87,91.

³¹ For further discussion see *Environmental Assessment in British Columbia*. Environmental Law Centre, University of Victoria, 2010, p.49.

case, the need for an authorization to destroy fish habitat under s.35(2) of the *Fisheries Act* and the designation of portions of the Fish Creek watershed as a tailings impoundment area and listing on Schedule 2 of the *Metal Mining Effluent Regulation* were weighty issues that required solid information and detailed analysis.³² Effectively, this exercise is closer to the provincial permitting phase, although more detail still may be required subsequently.

These differences are important and often misunderstood. They can be fodder for unwarranted criticism that federal agencies requesting further information and technical detail are not team players or are dragging their feet and putting up barriers to project approval or imposing excessive “red tape.”

5. The fact that Federal Review Panel members were independent experts who were appointed by the Minister of the Environment for this particular assessment may also be an important factor. The panel process is designed to ensure that project impacts are assessed in an impartial and objective manner. CEAA requires members to be unbiased and free from conflict of interest, and have knowledge or experience relevant to the anticipated environmental effects of the project. Panels also bring credibility to the assessment by virtue of their independence from government. A transparent appointment process that consults key stakeholders on possible members is important to this process and was followed for this review panel. The Canadian Environmental Assessment Agency maintains a Panel Roster of ten individuals known for their previous experience as panel members, and for their experience with environmental assessment and public consultation processes. Two members of the Prosperity panel were chosen from the roster, while the third was chosen for her experience with First Nations, mining projects and environmental assessments.

By contrast, the BC EAO is a branch of the Ministry of Environment with reporting functions to the minister and a second “responsible minister” designated by Cabinet depending on the project type (in this case the Minister of Energy, Mines and Petroleum Resources).

One unanswered question from the documentary record is why the EAO and the two approving ministers did not wait until Fisheries and Oceans Canada had received answers to the questions it posed about the proposed fisheries compensation plan and provided its response. The answer is not likely that the EAO was forced to do so by its legislated time limits because the executive director has the authority to suspend them to require the proponent to provide additional information to complete the review: this

³² It should be noted that in May 2009 the Auditor General of Canada issued a report that was highly critical of Fisheries and Oceans Canada’s application of the Fish Habitat Compensation Policy, concluding that the agency “cannot demonstrate that they are adequately administering and enforcing the *Fisheries Act*” and finding that “the Department does not adequately monitor projects that it has approved with certain conditions attached that are meant to protect fish habitat.” The Auditor stated that DFO “needs to carry out better compliance monitoring and effectiveness evaluation—other key elements required under the Policy.” The agency accepted these findings and committed to more effectively implementing the Habitat Policy. Fisheries and Oceans Canada should therefore be given some credit for its diligence in pressing for answers and details from Taseko and the Province.

was exercised on two other occasions within the application review period.³³

It raises a question as to whether the Province’s actions were made in haste or disregard of the federal agency’s expert opinion on a critical issue in the environmental assessment. The result diminishes the sense that the EAO was committed to diligently ensuring that all of the issues in the jointly approved terms of reference for the assessment were thoroughly evaluated. The fact that the statutory decision to authorize destruction of fish habitat was a federal one should not be determinative because the EAO is mandated to assess all environmental, economic, social, heritage or health effects. In this instance, it seems that the EAO documented and reported on the positions of the various parties involved more than carried out an independent and thorough assessment of the viability of the Fisheries Compensation Plan. That is, in this regard it acted more as a process facilitator than as an impact assessment body.

Issue #2: Effects on Grizzly Bears

Summary of Findings	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> “The EAO is satisfied that the proposed Project is not likely to have significant adverse effects on wildlife.”³⁴</p>	<p><u>Finding:</u> The Panel concluded that the Project, in combination with reasonably foreseeable future forestry activities in the area, “would be likely to result in high magnitude, long-term effects on the South Chilcotin grizzly bear population”³⁵</p>

The assessment of the proposed mine’s impacts to the South Chilcotin grizzly bear population is a clear point of divergence between the EAO and Federal Review Panel assessments. In short, the EAO was aware of concerns expressed by provincial Ministry of Environment biologists about the impacts of the project on this threatened grizzly bear population, and the lack of detail in mitigation and compensation measures for wildlife including grizzly bears, but concluded that their concerns were not supportable.

The Federal Review Panel had the benefit of analysis and concerns expressed by the provincial Ministry of Environment and by grizzly biologist Wayne McCrory, and concluded that the cumulative effects of the mine and other activities would result in a significant adverse effect to the South Chilcotin grizzly bear population unit of about 100 bears.

One of the more curious aspects of this assessment is that the Federal Review Panel accepted the legitimacy of MOE concerns whereas the EAO rejected them. Because of

³³ *Environmental Assessment Act*, SBC 2002, c.43, s.24(2).

³⁴ EAO Assessment Report, p.84.

³⁵ Federal Review Panel Report, p.140.

this, greater discussion of the evidence is necessary to understand these conflicting findings.

Background:

Grizzly bears in BC are seen not as a homogenous interbreeding population, but as occurring in 57 discrete or nearly discrete population units. The grizzlies in the Prosperity Mine project area are considered part of the South Chilcotin Range population unit which is classified by the BC Ministry of Environment as threatened (one of nine threatened populations in BC). Population units to the east and north have been extirpated. Populations to the west in the coastal range mountains are considered viable.³⁶ Grizzly bear classification federally under the *Species at Risk Act* done at a coarser, larger geographic scale lists them as a species of "Special Concern."

Grizzly bears were one of many key indicator species identified by MOE and the Canadian Wildlife Service for assessment "based on strong regional interest and either their conservation status or socio-economic value as hunted and subsistence species."³⁷

Although it did not receive much attention in the assessment, in 1995 British Columbia adopted a Grizzly Bear Conservation Strategy with a goal "To maintain in perpetuity the diversity and abundance of Grizzly Bears and the ecosystems on which they depend throughout British Columbia."³⁸

Taseko Mines Ltd. EIS:

The EIS prepared by Taseko's consultants addressed grizzly bear habitat and the possibility of direct bear mortality (primarily from vehicle collisions) due to the access road and transmission lines. It acknowledged that "Given its threatened status, any human-caused grizzly bear mortalities in the South Chilcotin Ranges Grizzly Bear Population Unit (GBPU) are a serious concern."³⁹ It identified the risk of mortality to grizzlies through increased road traffic and the following impacts to grizzly bear habitat:

- Long term loss of 423 to 3,851 ha of feeding environment (depending on the season);
- Permanent loss of 845 ha of upland habitat loss due to water features
- Potential long term loss of feeding habitat along the transmission line corridor of about 264 ha
- Direct mortality risks through increased access of hunters and poachers

³⁶ Ministry of Environment, October 7, 2010, p.3. Online at http://www.env.gov.bc.ca/fw/wildlife/management-issues/docs/grizzly_bear_faq.pdf.

³⁷ EAO Assessment Report, p.75.

³⁸ A Future for the Grizzly: British Columbia Grizzly Bear Conservation Strategy, executive summary. Available online at http://www.env.gov.bc.ca/wld/grzz/grst.html#first_.

³⁹ Taseko Mines Ltd., Prosperity Copper-Gold Project EIS, March 2009, Volume 3, p.9-96.

For both the habitat and direct mortality issues, the project impacts were deemed to be "not significant." The overall confidence in the Project environmental effect and significance prediction was stated be "low" for the habitat issue and "low" for the direct mortality issue during mine operations.⁴⁰ No follow-up or monitoring programs were proposed for grizzly bear habitat. A "Grizzly Bear Mortality Investigation Program" which would require Taseko to investigate any Project-related grizzly bear mortalities and report the findings to the BC Ministry of Environment, was the proposed follow up action for the direct mortality issue.

The sole mitigation measure proposed in the EIS was to work with the BC Ministry of Transportation to reduce traffic speed along the section of the Taseko Lake Road that is within occupied grizzly bear range.⁴¹

BC Ministry of Environment:

Wildlife biologists in the BC MOE continually pressed for greater details that justified Taseko's claim that the project would have no significant adverse effects on grizzly bears. They challenged the EIS in several ways and asked for further studies and updating of old data that had been done a decade earlier. The agency's responses concerning the initial EIS submitted by Taseko in March 2009 include the following:

- The EIS repeatedly refers to "low density" of bears and "nil or low capability". There is heavy reliance on interpreted vegetation/ecosystem mapping (with low confidence in the predictions) to arrive at this conclusion. Research (DNA work) currently underway in the South Chilcotin GBPU suggest that we have underestimated the capability of this landbase to support grizzly bears....This work will help to establish an appropriate baseline for grizzly bear which is important in managing to the stated objective of zero impact on this threatened population. Taseko should commit to an ongoing DNA/hair snag monitoring program that would be able to prove that they have met the objective of no significant residual environmental impact or cumulative effect on grizzly bear in this Threatened GBPU.⁴²
- The confidence in the predictions for grizzly bear habitat remain a concern. Taseko should commit to completing a cumulative effects analysis for grizzly bear. Even if we agreed that the Project has limited potential to affect recovery, how do we know if the population, subpopulation and individual bear consequences of the Project, plus all the other pressures on the same landbase, will or will not prevent recovery? The only way to achieve this is by completing a cumulative effects analysis.⁴³
- The EIS assessment of significance of project effects fails to characterize the project effects on local/sub - regional wildlife populations. Taseko should commit to characterizing the significance of impacts to local/sub - regional wildlife populations in order that residual Project effects can be better understood. The apparent lack of initiative to characterize the impacts at scales more applicable to the value will increase the risk that the EIS will not be

⁴⁰ Taseko Mines Ltd., Prosperity Copper-Gold Project EIS, March 2009, Volume 5, pp.6-99 and 6-104. The confidence level for direct mortality after mine closure was said to be high due to the cessation of traffic.

⁴¹ Taseko Mines Ltd., Prosperity Copper-Gold Project EIS, March 2009, Volume 5, pp.6-105 to 6-107.

⁴² Ministry of Environment (ESD) Prosperity EIS Terrestrial Ecosystems Comments, May 25, 2009, p.12

⁴³ Ministry of Environment (ESD) Prosperity EIS Terrestrial Ecosystems Comments, May 25, 2009, p.13

able to withstand Panel scrutiny nor respond to inevitable questions during the public hearing process.⁴⁴

- Using the region 5 scale to examine the local project (road) effects is not appropriate. As this is one of only nine threatened grizzly bear populations in the province, and as acknowledged, any additional human induced GB mortality would be considered unsustainable, the EIS needs to fully explain how GB mortality associated with the mine will be completely prevented. I acknowledge that the EIS does refer to some preventative measures (eg speed control, measures on the road) but I ask is this sufficient given the threatened status of this population?⁴⁵
- MOE does not agree with the conclusion of no significant residual effect on grizzly bears in this area. There is permanent loss of habitat at the mine site and there is considerable risk that more than 1 bear will be lost to human - caused mortality related to the mine operations, road use and increased access along the transmission line. In our view, mitigation and/or compensation should be enhanced to address these residual effects and help ensure that the mine development does not increase risk to this already threatened GB population.⁴⁶

The Canadian Wildlife Service (CWS) of Environment Canada reviewed these comments and advised the EAO that it "largely agrees with, and supports, the commentary provided by the BC MOE." While mostly commenting on migratory birds and species at risk,⁴⁷ CWS noted the absence of a habitat compensation plan in the EIS and suggested that such a plan should be prepared and incorporate a "no net loss approach to ecosystem functioning."⁴⁸

In June 2009 MOE advised the EAO that:⁴⁹

- "most of MOE's comments listed in the tracking table have not yet been resolved," and stated that a "lack of dialogue with and lack of commitment from Taseko to address the issues identified is preventing issues from being resolved."
- "One outstanding concern of MOE is compensation for those species and habitats through which avoidance or mitigation cannot be accomplished. Once the local effects of the project on wildlife and vegetation are identified, Taseko and MOE can work towards developing an appropriate compensation plan in coordination with Environment Canada."

⁴⁴ Ministry of Environment (ESD) Prosperity EIS Terrestrial Ecosystems Comments, May 25, 2009, p.18

⁴⁵ Ministry of Environment (ESD) Prosperity EIS Terrestrial Ecosystems Responses, June 5, 2009. (Note: Region 5 is a very large area that extends from Bella Coola in the west to Wells Gray Provincial Park in the east, and from Chilko Lake in the south to Quesnel in the north. In environmental assessment the equivalent of the dictum "the solution to pollution is dilution" is to expand the impact study area for a given value until the impacts of a project appear less significant than they otherwise would. I am not suggesting this was the intent in this particular instance, but Region 5 is so vast that it stands out as conspicuous).

⁴⁶ Ministry of Environment (ESD) Prosperity EIS Terrestrial Ecosystems Responses, June 5, 2009.

⁴⁷ Although the South Chilcotin grizzly population was identified as threatened provincially, the federal *Species at Risk Act* treats the listing process at a much larger scale. COSEWIC has listed the northwestern population (which includes grizzlies in BC, Yukon, Northwest Territories and Nunavut as a single unit) as a species of "special concern," but this population is not yet listed on Schedule 1 of the *Species at Risk Act* by the federal Cabinet. If it were, s.79(2) of CEAA would require federal "responsible authorities" to "ensure that measures are taken to avoid or lessen those effects and to monitor them."

⁴⁸ Correspondence dated May 25, 2009 from M. Wilson, Environment Canada to R.Connelly, Federal Review Panel (attached comments, pp.6-12).

⁴⁹ Correspondence dated June 28, 2009 from R.Packham, MOE to G.Alexander, EAO.

- "Another theme that presents itself throughout many of MOE's comments is the concern that the proponent needs to conduct up-to-date surveys for wildlife species and features prior to beginning construction on both the mine site and along the transmission line."
- "the referenced tables are non-committal in what Taseko is proposing to do."

MOE called for a grizzly bear mortality risk assessment, further monitoring, a cumulative effects assessment, and a Bear-Human Conflict Management Plan.

In July 2009 Taseko conducted further analysis and reduced the spatial scope according to MOE's request (to sub-regional population units or management units). Its reassessment again concluded that there was no significant effect on the species considered. MOE expressed dissatisfaction with the meaningfulness of the analysis produced.⁵⁰

Considerable frustration on the part of the BC Ministry of Environment led to correspondence with the Canadian Environmental Assessment Agency in September 2009, informing the agency that:⁵¹

- MOE is not able to concur with the proponent that the local losses of wildlife and habitat are not significant at the sub-regional or local scales.
- At this point, we have faced some substantive difficulty procuring an explanation for the conclusions respecting impacts to wildlife resources and ecosystem values.
- Further, there is little explanation as to the expected efficacy of applied mitigation, few insights on residual impacts and little if any commitment to compensation for losses due to residual impacts, or alternatively no explanation as to why compensation is not warranted.
- The proponent has not been forthright in offering sufficient clear commitments that would address the May 2006 letter [from the MOE deputy minister to Fisheries and Oceans Canada confirming that the Province would be seeking compensation for loss of environmental values including...wildlife, wildlife habitat and species at risk].
- There are numerous outstanding issues that have yet to be resolved, primarily because the proponent is not providing an explanation for their conclusions respecting significance of impacts, and is not rationalizing their comments concerning compensation.

Taseko submitted a supplemental report in October 2009 yielding the same conclusion that there were no significant adverse effects. MOE still was not convinced and "requested that the Proponent explain its conclusions regarding impacts to wildlife resources and ecosystem values, the expected efficacy of applied mitigation, anticipated residual effects as well as commit to compensation for residual effects."⁵²

⁵⁰ EAO Assessment Report, p.81.

⁵¹ Correspondence dated Sept.23, 2009 from R.Packham, Senior Ecosystems Biologist to CEAA.

⁵² EAO Assessment Report, p.83.

BC EAO:

The EAO's own evaluation of grizzly bear impacts is very thin. The grizzly bear issues are only briefly addressed in the EAO Assessment Report and are not specifically mentioned in the Executive Director's Recommendations Report to the ministers. As with the fish and fish habitat issue above, the two reports mostly document the steps taken and the positions expressed by various parties on wildlife but do not provide much in the way of independent evaluation or analysis.

The EAO acknowledged that "MOE has expressed concern that a commitment to wildlife compensation should provide more certainty with respect to scheduling, planning and coordinating delivery of compensation measures."⁵³

However, without providing a rationale, the EAO adopted the proponent's position that the project would have no significant adverse effects on wildlife, even though MOE biologists were not convinced of that. The Assessment Report suggests that the EAO simply concluded that the proponent had provided enough information and MOE was being too demanding. After describing the differences of opinion between MOE biologists and Taseko's consultants, the EAO exercised its authority to decide the issue by declaring:⁵⁴

The Proponent has, in EAO's opinion, explained its conclusions regarding impacts to wildlife and ecosystem values in the Application and the supplemental report; committed to mitigation to reduce the impacts to wildlife and wildlife habitat and committed to compensation to address adverse effects. Commitment 11.1 discussed below outlines a process to consider the effectiveness of mitigation in determining the need for compensation.

...

Based on the above analysis and having regard to the Proponent's commitments (which would become legally binding as a condition of a Certificate), EAO is satisfied that the proposed Project is not likely to have significant adverse effects on wildlife.

Unfortunately, neither the EAO Assessment Report nor the Executive Director's recommendations to the ministers provide any additional analysis or rationale to explain how or why the EAO came to a different conclusion than MOE on impacts to grizzly bears (or wildlife generally) other than finding that the proponent had "explained its conclusions" and mitigation and compensation measures had been adequately dealt with in Commitment 11.1. This is a significant issue because it goes to the relative expertise of MOE biologists and EAO staff and who has authority for key decisions relating to wildlife.⁵⁵

⁵³ EAO Assessment Report, p.84.

⁵⁴ EAO Assessment Report, p.84.

⁵⁵ This issue arose in other aspects of the assessment as well, such as potential seepage of mine tailings into ground water across watersheds, and gives rise to an important question as to when and on what basis should the EAO be overruling provincial agency experts. See *Environmental Assessment in British Columbia*. Environmental Law Centre, University of Victoria, 2010. P.44 (Recommendation #16) and pp.47-8.

The full text of Commitment 11 reads as follows:

11.0 Habitat Compensation

11.1 Develop and implement a plan for achieving compensation for adverse impacts to wetland habitat, the productive capacity of the lake, recreation values, wildlife, wildlife habitat and the critical habitat of species at risk. Development and implementation of the plan will be guided by the following principles:

- a) A suite of mitigation measures designed to eliminate or minimize Project effects have been outlined in the Application. The effectiveness of these mitigation measures will be taken into account when assessing the need and justification for specific compensation measures.
- b) Compensation measures will be considered and implemented on a case-by-case basis based on the appropriateness of each proposed compensation measure in each case.
- c) There will be no need for compensation if there is a technically defensible confirmation that there is no adverse impact. The process by which a determination of impact is reached will be transparent, readily understood, and undertaken in consultation with MOE, CWS, and First Nations.

11.2 Taseko will work with MOE officials in a timely manner to develop a "Reference Document" in which roles and responsibilities, timing and strategies for implementation of the plan outlined in 11.1 will be detailed.

It seems evident that in crafting this commitment the EAO simply deferred the substantive issues to be addressed to some future planning process, and did not require any concrete mitigation or compensation measures. Commitment 11.0 does not address the grizzly issue specifically, but clusters all outstanding fish and wildlife habitat issues into the promise of some future effort. Commitment 11.1 states that "a suite of mitigation measures...have been outlined in the Application" but in fact no mitigation measures were proposed for adverse effects to grizzly habitat – the only mitigation proposed was with respect to speed limits on parts of the access road to address direct mortality through collisions.

Even if there had been proposed mitigation for adverse effects to grizzly habitat, the "commitment" is vague and weak. The obligation to "develop...a plan for achieving compensation" is not *actual* compensation. To say that compensation measures will be "considered and implemented on a case-by-case basis based on...appropriateness" is too vacuous to provide assessment professionals with the evidence needed to make an informed decision as to whether the compensation would be viable, effective and adequate to justify a proper finding that identified adverse effects would not be significant. The provincial Auditor General identified similar concerns about the adequacy of terms and conditions in Environmental Assessment Certificates in his July 2011 audit of the Environmental Assessment Office.

It is difficult to avoid the conclusion that the issue of impacts to this threatened grizzly bear population was simply deferred to a future day in order to grant the project an Environmental Assessment Certificate.

Federal Review Panel:

After reviewing this history and receiving additional evidence from participants in its hearing, the Federal Review Panel concluded that “the Project, together with past, present and reasonably foreseeable future forestry activities in the area, would result in a significant adverse cumulative effect on the South Chilcotin grizzly bear population.”

The Panel had received the same evidence from Taseko as the EAO. It was able to review the record of correspondence on the grizzly issue between the EAO and MOE, but was not able to receive any direct evidence from a MOE biologist on this (or any other issue) because the Province choose to boycott the Panel hearings and would not make its experts available to the Panel. The MOE deputy minister turned down an invitation to participate in the hearing, informing the Panel that:⁵⁶

As you are aware, Ministry officials conducted a thorough analysis of the Prosperity Project of its effects as it relates to this ministry’s mandate. Analysis and conclusions on the potential effects on the subjects identified in your letter have already been summarized and submitted to the BC Environmental Assessment Office (EAO) and can be found on the EAO website and as well in the assessment report and issue tracking tables. In my view the submissions available on the website include sufficient information and analysis to support the conclusions reached and represent an adequate response to your information request.

Every other provincial agency invited by the Panel responded in the same manner, all citing various versions of the same message. The Panel handled this rebuff politely, reporting as set out above that “the Panel was not able to receive clarification regarding provincial ministries mandates, the issues they raised, or to take advantage of their expertise.” However, the tactic placed a shroud around the Province’s approval of the project; if senior officials truly had confidence in the integrity of the decision and the conclusions reached, surely they could allow staff to attend and explain how the evidence was viewed and the rationale for approval. Instead, it comes across more as a circling of the wagons for damage control purposes.

The main concerns heard by the Panel came from First Nations and grizzly bear biologist Wayne McCrory, who reviewed Taseko’s assessment on behalf of the Friends of the Nemaiah Valley and Tsilhqot’in National Government. McCrory had previously done field research in this grizzly population unit (which was cited in Taseko’s EIS) and his critique raised the following issues and concerns as noted by the Panel:⁵⁷

- the access road between the mine site and Lees Corner intersected what appeared to be a wide dispersal corridor for grizzly bears travelling from the area to the east to Dasiqox (Taseko River) and Tsilhqox (Chilco River).
- habitat fragmentation presented the greatest impact on grizzly bears, and that the existing Taseko / Whitewater road acted as a partial barrier to movements across the Chilcotin

⁵⁶ Correspondence dated March 16, 2010 from D.Konkin, Deputy Minister, MOE to R.Connelly, Chair, Federal Review Panel.

⁵⁷ Federal Review Panel Report, p.106-7,135.

Plateau... [A]dditional traffic could alter movements of grizzly bears within their home range and, as a result, could affect fitness and survival.

- the current state of the road provided a natural type of speed control that could limit collisions with wildlife, and that road improvements required to accommodate Project vehicles would likely result in increased traffic and increase the risk of mortality of grizzly bears and other wildlife.
- grizzly bear populations generally could not sustain mortality rates higher than 4% annually, if recovery was desired. Further, he stated that even the loss of one breeding-age female could have serious consequences to maintaining a viable population. Mr. McCrory noted that the Province estimated the South Chilcotin Grizzly Bear population unit to be approximately 100 animals. Mortality data presented for the period of 2001-2009 indicated that at least 7 grizzlies were reported killed in conflict-related incidences, and he estimated that, when considering unreported kills, at least 17 grizzly bears could have been killed by humans during that time.
- The Province of British Columbia had listed the grizzly bear population in the mine site area as "threatened", which Mr. McCrory believed to be, by definition, an indicator that the species had already undergone significant adverse effects due to human development. He noted particularly that existing structures and activities such as roads and forestry clearcuts, human settlement, extensive mining exploration activities, over-grazing, mortality from collisions, illegal killing, climate change and other factors had resulted in the population decline.
- Mr. McCrory was also critical of Taseko's approach of determining the significance of effects on grizzly bears. He noted that comparing the amount of habitat lost as a result of the Project to the amount of habitat available in the region was misleading and did not take into account the differences in how wildlife species used different seasonal habitats to a much higher degree than others. For example, he referred to a study in southeast British Columbia that demonstrated that grizzly bears made a much higher proportionate use of wetlands than their relative distribution in the landscape. Therefore, Mr. McCrory indicated that the loss of wetland and riparian habitat as a result of the Project could be more significant to grizzly bears than just losing a small percentage out of the landscape.
- Taseko had significantly undervalued the cumulative environmental effects of the mine development on grizzly bears...[T]he habitat area-based approach used by Taseko to conclude that the Project would have no significant impact on grizzly bears was misleading...[A] more comprehensive cumulative effects approach...concluded that the mine development in combination with other activities would have a significant effect on the threatened South Chilcotin Ranges Grizzly Bear Population Unit.
- the (transmission line) right-of-way would improve access for motorized all-wheel drive vehicles, all-terrain vehicles and snowmobiles, thereby causing more displacement and increased mortality risk for grizzly bears.
- the road and the mine would cause increased bear mortality that in the long term would push this threatened population below the threshold required to sustain recovery of the population. He also cautioned the Panel about Taseko's plan to rely on provincial programs to implement mitigation measures and follow-up programs to effectively prevent the effects on grizzly bears. In particular, he questioned the effectiveness of Taseko's proposed Grizzly Bear Mortality Investigation Program in preventing effects on grizzly bears.

- the South Chilcotin grizzly population could not sustain further habitat losses or increased human-induced mortality expected to result from the Project...[T]he combined effects of the Project with the other human infrastructure and activities in the region would push the Chilcotin grizzly bear population over the threshold of extinction.

After receiving this evidence the Panel asked Taseko Mines Ltd. whether it would reconsider its conclusion of no significant effect based on information filed by McCrory, but “Taseko confirmed that it would not reconsider its findings but added that its determination was dependant on the effectiveness and implementation of the identified mitigation measures.”⁵⁸

The Panel also took note that in its review of the EIS the Ministry of Environment “indicated that it did not agree with Taseko’s conclusion of no significant residual effect on grizzly bears in this area due to the permanent of loss of habitat at the mine site and the risk that bears would be lost to human-caused mortality related to the mine operations, road use and increased access along the transmission corridor. Moreover, it questioned whether the mitigation measures proposed by Taseko to reduce the risk of mortality would be sufficient given the threatened status of this population, and argued that the proposed mitigation measures be enhanced to address the residual effects on grizzly bears.”⁵⁹

After considering the evidence made available to it, the opportunity for rebuttal by Taseko, and presumably the lack of a rationale by the EAO, the Panel concluded that “the increased road traffic and further loss and fragmentation of habitat caused by the Project, in combination with reasonably foreseeable future forestry activities, would be likely to result in high magnitude, long-term effects on the South Chilcotin grizzly bear population.”⁶⁰

Issue #3: Effects on Xeni Gwet’in Trapline

Summary of Findings	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> No adverse effect on the right to hunt and trap is anticipated. As well, given [three factors addressed below]...any potential interference with the right is considered justifiable.⁶¹</p>	<p><u>Finding:</u> The Panel concludes that the Project would not result in a significant adverse effect on trapping in the region, but would result in a significant adverse effect on the Xeni Gwet’in (Nemiah Band)/Sonny Lulua trapline that would be most affected by the mine site footprint.</p>

⁵⁸ Federal Review Panel Report, p.106.

⁵⁹ Federal Review Panel Report, p.107.

⁶⁰ Federal Review Panel Report, p.140.

⁶¹ Recommendations of the Executive Director, December 17, 2009, pp.16.

As noted above, the choice of geographic scale when carrying out impact assessment can be a major factor influencing whether adverse effects are found to be significant. The Prosperity Mine site directly affected two registered traplines, while nine more would be affected by the access road or transmission line.

The EAO determined that there would be no adverse effect on the trapping rights of the Xenigwet'in First Nation, because the mine would result in a maximum disturbance of 2.3% of the total area for which the First Nation claims Aboriginal rights or title. That is, although 3,119 hectares would be disturbed and unavailable for traditional trapping activity, that impact was insignificant because the total area claimed by the Xenigwet'in as traditional territory amounted to 133,434 hectares. In other words, the EAO decided that there were lots of other places to trap so this was a minor issue.

By contrast, the Federal Review Panel looked at essentially the same information and determined that there would be an adverse effect on the trapline held by Sonny Lulua on behalf of the Xenigwet'in. In other words, the Panel focused on the significance of that trapline area to the Xenigwet'in and decided that "location matters."

BC EAO:

The EAO also acknowledged that "based on the reasons of Mr. Justice Vickers in the *William* decision,⁶² EAO understands that the Tsilhqot'in people have an aboriginal right to hunt and trap birds and animals throughout the "Claim Area" defined in the *William* decision, and the proposed mine site is located in the "Claim Area."⁶³

The EAO also acknowledged that "While the economic value from trapping in the RSA [Regional Study Area] and LSA [Local Study Area] is small, it is an important recreational activity for those involved."⁶⁴ It noted that:

Baptiste *et al.* claim that the proposed Project would to some extent adversely affect the aboriginal hunting and trapping rights described in the *William* decision by:

- diminishing the overall quality and quantity of bird and wildlife habitat thus reducing the populations of birds and wildlife available for hunting and trapping;
- fragmenting wildlife habitat and disrupting the migration and residency patterns of birds and wildlife that are hunted and trapped by Tsilhqot'in members;...
- negative impacts on water quality and quantity, with consequent impacts on the quality and quantity of birds and wildlife that are hunted and trapped by Tsilhqot'in members;
- loss of access for Tsilhqot'in members to traditional hunting and trapping grounds in and around the proposed Project lands;

⁶² *Tsilhqot'in Nation v. British Columbia*, 2007 BCSC 1700.

⁶³ EAO Assessment Report, p.24.

⁶⁴ EAO Assessment Report, p.95.

- increasing the amount of human activity in the area and thus reducing the lands over which hunting and trapping can be safely carried out; and,
- increasing access for non-aboriginal hunters into the region, thus increasing competition for, and pressure on, bird and wildlife populations.

At the urging of MOE, the EAO required Taseko to carry out further analysis at a more appropriate scale to assessing the significance of impacts to Tsilhqot'in trapping rights, which was done in October 2009 (the "Supplemental Report"). The EAO Assessment Report states:

The impacts to wildlife were presented in the Application and no significant impacts were found at the scales presented. Further assessment was required by EAO – and a suspension of the time limit for the review – in order to gain a more fulsome understanding of potential impacts at a scale of particular relevance to the exercise of Tsilhqot'in hunting and trapping rights. (underlining added).

The EAO asked for this assessment to document the biogeoclimatic zones affected at multiple scales, and reported the results in the following table and commentary:⁶⁵

Table 8: Area of Biogeoclimatic Units in Study Area or Proposed Project Footprint Biogeoclimatic Unit	Area (ha) in Maximum Disturbance (Footprint)	Area (ha) in Rights and Title Study Area	Percentage of Area in Maximum Disturbance (Footprint) as a Portion of the Rights and Title Study Area
SBPSxc	2,414	107,245	2.3
MSxv	705	26,189	2.7
Total	3,119	133,434	2.3

In interpreting this information, and the relatively small proportion of the two habitat types affected (less than 3 percent of that available in the Claim Area) it is relevant to consider the conditions in the area outside of the proposed Project area but within the Claim Area (i.e. the remaining 97 percent of these two habitat types).

While EAO reported these results according to the larger Claim Area, it could have equally tallied the disturbance footprint against the smaller unit of the Eastern Trapline area, especially given that this is the area of relevance both to the trapline and the mine site in question, and was used as the local study area in Taseko's October 2009 Supplemental Report. This would have increased the result in the "percentage of area" and appeared to be more significant. As Taseko reported, "Project-related changes in habitat availability, viewed in the context of the smallest study area (i.e., the Eastern Trapline Study Area) were understandably the largest, ranging from -6.1 to -36.1% for moderate and higher value habitat classes." For example, for a fur-bearing species such as fisher, it was reported that "The loss of moderate and high capability habitat is medium to high magnitude in context of the Eastern Trapline Study Area" (i.e. 12.6%

⁶⁵ EAO Assessment Report, p.125.

instead of 2%).⁶⁶ This just shows how the perception of significance can change considerably according to somewhat arbitrary measurement units.

In the belief that 97% of the remaining Claim Area was meaningfully available for trapping, some of which was protected and had minimal recent industrial activity, the EAO concluded:⁶⁷

Consequently, no significant adverse impact on the right to hunt and trap is anticipated. As well, given EAO's assessment that the right would still be meaningful notwithstanding the loss of the proposed Project area and the impact of the proposed Project; given the meaningful process of and opportunities for consultation and accommodation to date; and given the regional and provincial importance of the proposed Project (discussed in section 2.3 of the Assessment Report), any potential interference with the right is considered justifiable.

Leaving aside for the moment the issue of "justification" (which has two meanings: one in impact assessment and another in Aboriginal law which will be discussed below), the problem with this analysis is that it ignores the significance of the place in which these rights are exercised by assuming that anywhere in the Claim Area would be suitable regardless of traditional use or chances of success. Just because the same biogeoclimatic zone exists elsewhere in the Claim Area doesn't mean that it is feasible to trap there.

When it concluded its reports the EAO did not have direct evidence on trapline use and the significance of location from the Tsilhqot'in National Government (TNG) because it had stopped participating in the provincial process after the EAO and Minister acceded to Taseko Mines Ltd.'s wishes not to proceed by way of a joint review panel. The EAO executive director acknowledged that "The TNG has repeatedly stated that it believes the Minister's decision to not proceed with a joint panel was unfair, inappropriate and in bad faith. The EAO does not share this position." However, this left the EAO with a challenge in terms of getting the necessary First Nations information: it ended up relying on information in Taseko's EIS Application and submissions that the TNG had made to the Federal Review Panel in December 2009, before the Panel hearings began.

Federal Review Panel:

The TNG did participate in the Federal Review Panel process and responded to the notion that they could just relocate to other hunting, fishing and trapping areas:⁶⁸

The Teztan Biny region has become all the more culturally important as other areas of Tsilhqot'in territory have been developed or alienated to third parties. Satellite imagery in the *Tsilhqot'in Nation* trial shows extensive development right up to the borders of the Claim Area in that case.

⁶⁶ Supplemental Report to Taseko Mines Ltd. Prosperity Gold-Copper Project Environmental Impact Statement: Local and Regional Environmental Effects on Wildlife and Vegetation Resources of Importance to the Tsilhqot'in National Government at the Proposed Mine Site, Taseko Mines Ltd., October 2, 2009, p.ii, 38, 45.

⁶⁷ EAO Assessment Report, p.126.

⁶⁸ Tsilhqot'in National Government (TNG) Final Submissions For the Prosperity Mine Federal Review Panel, p.21, 45.

Since then, two recent fires have decimated much of the Brittany Triangle. Aside from the profound and ancient cultural attachment to the Teztan Biny region, simply “going elsewhere” to hunt, trap and fish is becoming less and less of an option over time – this region has become “elsewhere” for many Tsilhqot’in people displaced by industry from other portions of Tsilhqot’in territory.

...

it is no answer to this infringement to direct the Tsilhqot’in to “go elsewhere” on their rapidly diminishing traditional lands. Further, location matters. It is not simply hunting and trapping that defines Tsilhqot’in culture – it is, in part, the manner in which these activities bind them to specific lands and waters and connect them to Tsilhqot’in ancestors and to future generations of Tsilhqot’in that have used, or will use, these same lands and waters. There is an extremely strong sense for many Tsilhqot’in people that the lands around Fish Lake and Nabas are “home.”

The Federal Review Panel noted that the mine site would occupy 2,782 ha of the Xeni Gwet’in trap line, with an additional 3,349 ha eliminated within the mine site buffer, totalling a loss of 8,913 ha. It acknowledged that “Taseko noted that trap line areas at the mine site would be lost and that trap line areas within the mine buffer would be negatively affected from a possible decline in fur bearing animal populations.”

The Panel drew the obvious conclusion: that the project would result in a significant adverse effect on the Xeni Gwet’in trapline most affected by the mine site footprint.

Issue #4: Effects on Grazing Rights

Summary of Findings	
BC Environmental Assessment Office	Federal Review Panel
<u>Finding:</u> No finding made.	<u>Finding:</u> The Panel concludes that the proposed mine site would result in a locally significant adverse effect on the users of the meadows within the Teztan Yeqox (Fish Creek) watershed due to the loss of grazing lands. ⁶⁹

Taseko Mines Ltd.’s EIS:

Taseko’s EIS identified 32 grazing tenures in the area of the mine project, most of which were associated with the 125 km long transmission line corridor that would run from the mine site northeast to a switching station at Dog Creek across the Fraser River. The company indicated that for these tenures it would work “with the landowners and the grazing tenure holders to develop schedules and policies that protect the natural grasslands and minimize disturbance to grazing systems during construction.”⁷⁰

⁶⁹ Federal Review Panel Report, p.153.

⁷⁰ Taseko Mines Ltd., Prosperity Copper-Gold Project EIS, March 2009, Volume 3, p.9-11.

Grazing rights also existed at the mine site itself, and these were expected to be more impacted given the large footprint and nature of the mine operations. Taseko noted the long history of grazing use by First Nations in this area:

Cattle grazing and hay areas evolved into an important subsistence activity in the 1900s. In the 1930s, the Fish Lake area was used by the Jimmy and Amelia William family to grow hay for the cattle and horses he had acquired (Ehrhart-English 1994). The William family eventually moved to Little Fish Lake and at one time maintained a herd of 200 cattle and 15 horses. Other families, including the Salomons, kept cattle in the Fish Lake area. After the death of Jimmy William in 1971, remaining family members moved to Nemiah Valley—there are no permanent residents in Little Fish Lake area today.⁷¹

Taseko tried to quantify the residual effect of mine impacts on grazing by assessing impacts against the total number of animal unit months (AUMs) authorized in the whole Chilcotin Forest District:⁷²

The Project will exert a slight negative effect on the one range licensee and one First Nations rancher by removing 250 AUMs (0.3% of total AUMs authorized in the Chilcotin Forest District) of productive range at the mine site once when site clearing begins. However, by altering grazing patterns, users can access available forage in the areas immediately surrounding the mine. Overall, the mine site itself will have a minimal effect on forage availability (Klause, pers. comm. 2007). Even then the effect is reversible, as much of this lost range would be restored post-closure.

Taseko's EIS concluded that these impacts were not significant:⁷³

The Project will cause one licensee at the mine site and one First Nations rancher to have to alter the grazing patterns for their animals, and have a minor, but positive, effect on forage availability along the transmission corridor.

...

One outfitter (Reuter) also holds a grazing licence in the mine site area and discussions concerning the loss of grazing opportunities will be undertaken in conjunction with the guide outfitting licence.

...

The licence area covered by mine components is negligible for the majority of tenures (less than 6% in total), while productivity in terms of AUMs that those areas represent cannot be determined with the available data. The largest lease area for an individual tenure is 251,000 ha, while the average tenure is 60,000 ha.

The company's proposed mitigation measure was to "work with the one range licensee and the First Nations' rancher now using the mine buffer area to ensure that existing forage access is not compromised and that range barriers are maintained."⁷⁴

⁷¹ Taseko Mines Ltd., Prosperity Copper-Gold Project EIS, March 2009, Volume 6, p.3-51.

⁷² Taseko Mines Ltd., Prosperity Copper-Gold Project EIS, March 2009, Volume 6, p.5-34.

⁷³ Taseko Mines Ltd., Prosperity Copper-Gold Project EIS, March 2009, Volume 6, p.5-34, 5-43, 5-84.

⁷⁴ Taseko Mines Ltd., Prosperity Copper-Gold Project EIS, March 2009, Volume 6, p.5-32.

BC EAO:

The BC EAO was aware of impacts to grazing rights and tenures but did not make a formal finding. The issue is given brief consideration in the following passage from the EAO Assessment Report:⁷⁵

“The proposed Project components intersect a total of 32 grazing tenures, however, the licence area overlapped by mine components is negligible for the majority of tenures. The transmission line would cross several large ranch operations, including one of the province’s largest ranches, the Gang Ranch. The proposed mine site (the Bullion Range Unit) is presently used by a Nemiah Valley rancher and a licensee as range.”

The Executive Director’s Recommendations Report to ministers does not mention any impact to grazing rights.

Federal Review Panel:

Although grazing rights are a provincial responsibility, the Federal Review Panel paid more attention these impacts. This may be due in part to the fact that the issue was addressed in its public hearings. The Panel Report states:⁷⁶

The Panel heard from a number of interested parties concerning the potential effects the Project may have on the various uses of the lands and resources in the region. In particular, participants were concerned about effects to forestry, grazing, hunting and trapping, as well as future and existing tourism operations.

In particular, the Panel heard that members of the Xeni Gwet’in First Nation use the mine area for grazing, as well as Taseko Lake Outfitters, a private company operating the Taseko Lake Lodge nearby. The following information came forward at the hearings:⁷⁷

During the public hearing, Ms. Patt Larcombe, on behalf of the Tsilhqot’in National Government, reported that the Solomon Family held grazing rights in the Y’anah Biny (Little Fish Lake) and Jidizay Biny (Big Onion Lake) area. Mr. Solomon submitted that both Wilfred Williams and Mabel Solomon continued to range their cattle in the area. He reported that they grazed about 40 head of cattle in this area, largely using Jidizay Biny (Big Onion Lake), Teztan Biny (Fish Lake), and Y’anah Biny.

...

Taseko Lake Outfitters also reported that it held a grazing tenure for their animals and grazed its animals in the grass meadows at Teztan Biny (Fish Lake), along Teztan Yeqox (Fish Creek), Y’anah Biny (Little Fish Lake), the area known as Nabas, and the creek and the meadows around Wasp Lake and Wolf Trap Lake. Taseko Lake Outfitters reported that their horses spend summers grazing in these areas in preparation for pack trips. They indicated that the sedge grass grows abundantly in the Teztan Yeqox valley, reaching 3 feet tall and that they used the grasses to make hay. In correspondence with Taseko, Taseko Lake Outfitters proposed mitigation for losses of grazing lands estimated to total over \$1,000,000 over the 20 year life of mine.

⁷⁵ EAO Assessment Report, p.29.

⁷⁶ Federal Review Panel Report, p.147.

⁷⁷ Federal Review Panel Report, p.148.

Furthermore, they expressed frustration that Taseko had dismissed their rights to graze and make hay. In their view, the Project would significantly impact their rights to graze in the Teztan Biny and Nabas areas.

The Panel also noted that Taseko Mines Ltd. “predicted that the mine site would have a minimal effect on forage availability, and that existing licensees would have to alter their grazing patterns” and stated that “the effects to grazing and haying lands would be reversible, as much of this lost range would be restored post-closure”⁷⁸ (i.e. at least 20 years later).

However, this was not an adequate response to those who would be displaced by the mine. The Panel found that “ranchers who used forage areas within the proposed mine site for their livestock and horses would have to find other forage areas; however, it was noted that all local meadows are being used for grazing at a sustainable level at present.”⁷⁹

Weighing this evidence the Panel concluded that “the proposed mine site would result in a locally significant adverse effect on the users of the meadows within the Teztan Yeqox (Fish Creek) watershed due to the loss of grazing lands.”⁸⁰

Issue #5: Effects on Navigation

Summary of Findings	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> No finding made.</p>	<p><u>Finding:</u> The Panel notes that the Project’s effects on navigation in the absence of effective mitigation measures would be high magnitude and irreversible. Therefore, the Panel agrees with Transport Canada’s conclusion that the Project would have a significant adverse effect on navigation.</p>

Navigable waters are federal responsibility, so it is not surprising perhaps that the BC EAO did not make a specific finding on effects of the mine to navigation. They were self-evident in any event, as the mine proposal called for the elimination of two lakes and navigation on those lakes obviously could not continue if the mine was approved.

What is surprising, however, is how little attention the BC EAO paid to the obvious significant adverse effects on outdoor water-based recreation at Fish Lake. The BC

⁷⁸ Federal Review Panel Report, p.145.

⁷⁹ Federal Review Panel Report, p.152.

⁸⁰ Federal Review Panel Report, p.153.

government does have a mandate for outdoor recreation, but I was unable to find on the EAO website any comments from a provincial ministry addressing outdoor recreation and boating in particular.⁸¹ At the time of the assessment the mandate for outdoor recreation in BC fell to the Ministry of Tourism, Culture and the Arts: the 2009-2011 service plan for the ministry stated that "The Ministry works to enhance the province's reputation as a world class destination with a wide array of experiences, ...[m]aking resorts, recreation sites, and trails a priority, serving as a cornerstone partner in providing outdoor recreational choices to British Columbians and visitors."

Taseko's EIS did address public recreation, but tends to dismiss the values found at Fish Lake and the project area by stating, for example, that "Apart from fishing and hunting, recreation use at and around Fish Lake is negligible due to the remote conditions and lack of compelling recreational features." It is difficult to imagine outdoor recreation users of the Fish Lake area agreeing with this. However, outdoor recreation did not seem to have any champion within the BC government agencies involved in this assessment. The mitigation proposed by Taseko was to "consider" additional recreation sites "most probably at lakes selected for transplant or replacement of Fish Lake stock."⁸²

The EAO Assessment Report makes occasional references to recreation and boating, but basically accepts the obvious: that these activities would be "curtailed at the mine site during operations."⁸³

The Application describes public use of the lands near to the site of the proposed Project as including recreational activities such as hunting, fishing, kayaking, canoeing, rafting, mountain biking, and backpacking. The Proponent considered the potential for impacts on these activities and found that although these activities would be curtailed at the mine site during operations and with the destruction of Fish Lake and the associated recreation site, there are many other well-used recreation areas in the Taseko River watershed.

The EAO did not consider this loss to be significant, nor did it require any specific mitigation or compensation for this impact. However, Commitment 11 included "recreational values" among the items that Taseko is to develop a compensation plan for, if compensation can be justified, and is subject to the shortcomings addressed above.

Federal Review Panel:

The Federal Review Panel assessed the navigation and boating recreation impacts of the mine for both loss of opportunity and the quality of navigation experience. It heard evidence mostly from Transport Canada and First Nations on this issue.

⁸¹ The Ministry of Tourism, Culture and the Arts did comment on archaeological site impacts.

⁸² Taseko Mines Ltd., Prosperity Copper-Gold Project EIS, March 2009, Volume 6, p.5-49 to 50.

⁸³ EAO Assessment Report, p.102.

Transport Canada was engaged in this assessment because the *Navigable Waters Protection Act* requires its approval for 'works' which substantially interfere with the 'public right of navigation'. In addition, section 23 of the NWPA requires a Governor in Council permission for depositing any substance into navigable waters such as Fish Lake.

Transport Canada indicated to the Panel that that the effects of the Project on navigation would be significant and adverse based on the following factors:⁸⁴

- boaters visit Teztan Biny (Fish Lake) to enjoy the remote location and pristine setting and to take advantage of the fishing opportunities. The Project as proposed would eliminate all boating, fishing and recreation activity in the Teztan Yeqox (Fish Creek) watershed.
- Unique aspects of this area created a strong link between boating and navigation, and between fishing and recreation. Transport Canada had not come upon this close relationship between navigation and recreation in previous projects. 80% of the recreational users of the Fish Lake area were boaters, and it was unusual to find a project where boating was so strongly linked to fishing and recreation;
- a viable trout fishery was a central strategy to minimize the effects on the character of navigation currently found in Teztan Biny (Fish Lake) as it related to fishing activities, but the agency was concerned that the plan to stock the lake with less than 25% of the existing trout population would be too low to offset the loss of fishing opportunities currently available;
- Taseko's mitigation proposal would likely lead to a less successful fishery and less enjoyable boating/fishing experience, and that potentially, the public and First Nations would avoid Prosperity Lake altogether.

Taseko took the view that Transport Canada had not adequately considered that Prosperity Lake would provide for 122 ha of navigation and would support a fishery as soon as the lake was established.

First Nations also raised loss of navigation issues, particularly given that Teztan Biny and its island were considered sacred sites:

The Tsilhqot'in indicated that, if approved and constructed, they did not expect that they would ever use Prosperity Lake as a replacement for the activities they currently undertook at Teztan Biny (Fish Lake) and Y'anah Biny (Little Fish Lake) including fishing and navigation. The Tsilhqot'in stated that even if navigation were to be re-established by way of Prosperity Lake, it would be meaningless to them.

⁸⁴ Federal Review Panel Report, pp.156-7.

The Federal Review Panel agreed with Transport Canada's conclusion that the Project would have a significant adverse effect on navigation due to the high magnitude and irreversibility of the project's effects in the absence of effective mitigation measures. Its view that Prosperity Lake would not adequately mitigate the losses of the fishing and recreational experience and the use by First Nations of the area was also a factor because of the connections between fishing, recreation and navigation.

It noted that if the project proceeded, Transport Canada "would require mitigation for the loss of navigation to the extent possible and that this would need to take into consideration matters related to navigation, including the fishing experience and the spiritual and cultural uses of Teztan Biny (Fish Lake), Y'anah Biny (Little Fish Lake) and portions of Teztan Yeqox (Fish Creek) that would be lost."⁸⁵

Issue #6: Effects on Tourism

Summary of Findings	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> No significant adverse effects. While loss of tenure area, air quality effects, visual quality effects, and noise may result in reduced use, there is not expected to be an adverse effect on tourism in a regional context.</p> <p>Positive effects of the proposed Project would include road improvements and the potential for increased mine-related business that could result in increased revenues for operators in the LSA [<i>local study area</i>], particularly in the tourism off-season.</p>	<p><u>Finding:</u> The Project would not result in a significant adverse effect on tourism and recreation in the region, but would result in a significant adverse effect on Taseko Lake Outfitters tourism business.</p> <p>The Panel is of the opinion that Taseko Lake Outfitters would likely be forced to close if the Project proceeds because of its proximity to the mine.</p>

The BC EAO and Federal Review Panel both found that the mine would not result in significant adverse effects in the regional study area. But this is a vast area encompassing the whole Cariboo-Chilcotin region of BC, some 80,629 km², or over 8 million hectares. It can take a full day of driving to get from one end of this region to the other. Despite the surprising size of this regional study area and the issue of whether it was a meaningful gauge for measuring the significance of adverse effects to tourism, it is of course completely appropriate to assess impacts at multiple scales in order to gain an appreciation of the project impacts.

The problem is that the BC EAO didn't really go on to meaningfully address the more obvious effects to the existing tourism business a short distance from the mine site – one that was in fact reliant on the Fish Lake area watershed. As noted in the table

⁸⁵ Federal Review Panel Report, p.158.

above, the EAO suggested only the “positive effects” that could result such as improved roads and revenue from mine-related business.

In May 2009 the owners of Taseko Lake Lodge made a plaintive plea to the EAO concerning the fate of their business if the mine was approved. Given how their concerns were essentially brushed aside it is worth reproducing a few excerpts from the four page letter:

The proposed mine site is almost immediately above our lodge. The pollution from lights, blasting and equipment noise would only be the beginning of the intrusion. The huge potential for air pollution from this quantity of diesel motors and dust, not to mention the acid rain from the open pit itself, is completely unacceptable...

...This mine will devalue our business and our life’s work and investments!

We use the trails to not only access the Fish Lake and area as a part of our ranch vacations, but also for grazing our 25 horses from mid May to end December each year. Most of our accessible grazing will be under water!...

We live, work, and play here; the closest people affected by this mine, yet we have never been directly approached by Taseko Mines as far as our concerns for consultation specific to the realities of living beneath the mine!!!

No consideration for the huge impacts to our family life nor for our sustainable eco-tourism business, no compensations for our licensed grazing, our trails and lost working environment—our forever changed atmosphere, environment, and lodge setting – no longer “exclusive wilderness” and no-so-private with 500 men in a camp barely an hour on horse back from the lodge’s gate! Where do we go from here?!

We have no one speaking for us. No government ministry concerned with the specific preservation of this unique wilderness and our business – just an hours flight from Whistler/Vancouver over the Coast Mountains.

As noted above under Issue #5, the Ministry of Tourism, Culture and the Arts perhaps could be expected to represent tourism industry interests in this environmental assessment, but the agency appears to have commented only on archaeological site issues.

Taseko’s EIS addressed local tourism impacts in a cursory manner: while it did not carry out a comprehensive analysis based on the actual operations of a business like Taseko Lake Outfitters, it at least acknowledged some of the local impacts by stating:⁸⁶

The Project will displace some activity by licensed commercial backcountry recreation operators, create some inconvenience for clients of lodges and accommodation facilities in the Nemiah Valley, and alter the visual landscape along the transmission corridor and near the mine site, possibly affecting the experience of tourists using these areas.

Three types of mitigation were proposed by Taseko:⁸⁷

⁸⁶ Taseko Mines Ltd., Prosperity Copper-Gold Project EIS, March 2009, Volume 6, p.5-54.

⁸⁷ Taseko Mines Ltd., Prosperity Copper-Gold Project EIS, March 2009, Volume 6, p.5-56, 57.

1. "discussions" with commercial recreation licensees and Crown tenure holders in the mine site area who will no longer have access to that land;
2. "work with" stakeholders to ensure their input into a number of mitigation strategies discussed elsewhere in this report, such as impacts to wildlife, air, water and noise;
3. "procurement agreements will be considered" with local area operators for the purchase of accommodation, food and beverage, and other services during construction and operations to help diversify their revenue base.

The EAO Executive Director accepted the adequacy of both the impact analysis and the proposed mitigation. He found that the "Impacts to tourism would be mitigated considering continued consultation in combination with mitigation measures to address potential impacts to wildlife, air, water and noise."⁸⁸ Once again, the promise of future consultation was found to constitute adequate mitigation that justified a finding of no significant adverse effects to the Taseko Lake Outfitters. This is problematic for at least two reasons:

- 1) What if the promised consultations do not result in any meaningful accommodation, not out of unwillingness but out of practical operational circumstances? Would the finding of "no significant adverse effects" then change? It would be too late to inform a reasonable decision on approving the Environmental Assessment Certificate, or including terms and conditions in the certificate. Depending on the mitigation measures, there might not be the opportunity to incorporate them into subsequent permits. In my view there is a tendency on the part of the EAO to assume that everything can be mitigated by tweaking when in fact some projects simply are not compatible with other competing land uses.
- 2) What if, as the Federal Review Panel concluded, Taseko Lake Outfitters would be forced to close its business due to its close proximity to the mine? Shouldn't the ministers be aware of that when making the decision to approve the project? Shouldn't the provincial minister responsible for tourism be notified and engaged in that decision? The failure to properly identify and assess impacts just makes for uninformed or at worst dishonest decision-making. It would be better for ministers to make informed choices, even if it means picking winners and losers, than to be led naively down the path believing there are no significant adverse effects of major projects such as this. It also lets proponents off the hook for the very real consequences of projects that cause harm to others.

One might also question the consistency of the EAO's finding that the destruction of Fish Lake and Little Fish Lake constituted a significant adverse effect to fish and fish

⁸⁸ Recommendations of the Executive Director, December 17, 2009, p.9.

habitat, yet not to the wilderness tourism business that brought out-of-country guests to fish those very waters and enjoy the natural surroundings. At the very least, answering that question should require a detailed examination of how the mine would affect lodge guests and a close examination of what other wilderness experiences could be offered to its customers.⁸⁹ To suggest that there are no significant adverse effects to tourism because there are plenty of other lodges in the region focuses solely on the options for visitors and ignores the real-life consequences to the impacted local business.

The Federal Review Panel would later conclude that “The loss of the campground at Teztan Biny (Fish Lake) would also likely have a negative effect on tourism in the region.”

Federal Review Panel:

The Federal Review Panel evaluated effects to tourism at both local and regional scales. Through its hearing process, the Panel heard directly from the family that owned Taseko Lake Outfitters as to the predicted impacts to its business. The Panel commented:

An adventure tourism operator, Taseko Lake Outfitters, was reported to operate in the area of the proposed mine site. Taseko Lake Outfitters managed a lodge, known as Taseko Lake Lodge, as part of its business, and the owners, the Reuter family, resided at the lodge. Taseko Lake Lodge was located immediately west of the proposed mine site between Jidizay Biny (Big Onion Lake) and the north end of Dasiqox Biny (Taseko Lake), approximately 10 km south-west of the proposed milling facility and camp and approximately 3 km from the west embankment of the tailings storage facility. Taseko Lake Outfitters used the Teztan Yeqox (Fish Creek) watershed to make hay and graze their horses as well as for their tourism operations.

The tourism operator was able to be directly involved in the Panel hearings that were held locally in the Nemiah Valley and provided information on issues such as air emissions and light pollution from the mine:

Presenters at the community hearing session in Xení Gwet'in (Nemiah Band), such as the Reuters of Taseko Lake Outfitters, noted that the EIS did not include receptors closer than the Nemiah Valley, such as outfitter lodges. For instance, the Reuters informed the Panel that their lodge, Taseko Lake Lodge, was located 3 km from the west embankment of the tailings storage facility, and that there was another homestead at Dediny Qox (Big Creek), approximately 10 km from the

⁸⁹ The EAO has required such assessments in the past: this is not the first instance of the EAO making an EAC approval recommendation with significant potential impacts to other Crown tenure holders. In the Jumbo Glacier Resort assessment, the impacts of the major resort on a heli-ski operation with a commercial backcountry tenure were assessed by an economist who found that the heli-ski operation would likely go out of business. A second opinion was sought, and it contradicted the first. The heli-ski operator felt the second report, which was favoured by the EAO, was inaccurate and prepared in haste. It brought litigation alleging the decision was unfair. The legal issue in that case was whether the EAO's handling of the second report on impacts to the business breached a duty of procedural fairness owed to R.K. Heli-Ski: it was held that it did not, as the heli-ski company had an opportunity to voice its objections to the second report. See *R.K. Heli-Ski Panorama v Glassman et al.*, 2005 BCSC 1622 (CanLII), at paras. 41–57. The decision was affirmed by the BC Court of Appeal: 2007 BCCA 9 (CanLII).

site, owned by Roland, Udetta and Jessias Class... The Reuters of Taseko Lake Outfitters also raised concerns about dust from the mine site affecting their home and business.

...

Light pollution was identified as a concern by local residents near the mine site as well as tourism operators in the area, including Taseko Lake Outfitters (located approximately 3 km from the west embankment of the tailings storage facility)...

After weighing the evidence presented to it on these issues the Panel found:

The Panel notes that due to the close proximity of Taseko Lake Lodge to the tailings storage facility, ground level concentrations of particulate matter could exceed air quality standards at the Lodge. Additionally, construction and operation activities that generate particulate matter, including construction of the west embankment and fine dust from the beaches of the tailings storage facility would be likely to affect Taseko Lake Lodge

...

The Panel finds that, with the exception of Taseko Lake Outfitters, the Project's effects on the atmospheric environment would be comparatively minor, limited in geographic extent, of medium term duration, and reversible over time.

...

The Panel finds that, with the exception of Taseko Lake Outfitters, due to factors such as distance and topography, effects from light pollution would not be expected for most receptors.

The Panel also commented on the noise that might be experienced by guests at the Taseko Lake Lodge:

The Panel notes that the EIS did not specifically assess the effects of noise on lodges that would be in closer proximity to the mine site, such as the Taseko Lake Lodge. Further, Health Canada indicated that it was also unable to assess the effect of blasting noise on the Taseko Lake Lodge. Therefore, the Panel notes that there is some uncertainty regarding the effects of noise on receptors in the immediate area of the Project. However, in the Panel's view, residents and any guests at Taseko Lake Lodge would no longer be able to enjoy a noise-free wilderness experience.

The Panel also heard directly from a number of First Nations who were in the planning stages to develop a First Nation tourist sector in their communities.

With respect to tourism in the Cariboo-Chilcotin region, the Project area was not reported to be an area of high tourist demand. However, the Panel heard that the transmission line could reduce the wilderness experience of rafters on the Fraser River. First Nation tourism initiatives planned in the Teztan Biny watershed, such as the tourism ventures being planned for the Y'anah Biny area, would not be able to proceed. However, in the region as a whole, it is the Panel's view that tourism would not be adversely affected.

However, the Panel found that the impacts to Taseko Lake Outfitters would be much more severe:

- The Panel is of the opinion that Taseko Lake Outfitters would likely be forced to close if the Project proceeds because of its proximity to the mine.
- The presence of the proposed mine site would devalue this setting and adversely affect their tourism operations. Further, the Panel heard that

Taseko Lake Outfitters utilized the meadows in the Nabas region to graze their horses.

- The Panel also notes that Taseko did not assess the effects of noise pollution or air quality at Taseko Lake Lodge, despite it being the closest receptor to the mine site.
- Further, the Panel notes that Taseko had not yet engaged in any discussion with tourism operators with respect to mitigation or compensation.
- Therefore, the Panel finds that the effects of the Project on Taseko Lake Outfitters would be high in magnitude and long-term. While the effects would likely be reversible in the post-closure period, it is unlikely that Taseko Lake Outfitters would be able to stay in business for the 44 years it would take for the landscape to return to a semi-natural state.

The Panel therefore concluded that the Project “would result in a significant adverse effect on Taseko Lake Outfitters tourism business.” It followed this finding with two recommendations:

Recommendation 13

If the Project proceeds, the Panel recommends that Taseko meet with the affected tourism business owners to discuss compensation for lost business as a form of mitigation.

Recommendation 14

If the Project proceeds, the Panel recommends that Taseko monitor ground level concentrations of particulate matter at the Taseko Lake Lodge.

Issue #7: Effects on Traditional Land Uses & Cultural Heritage

Summary of Findings	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> EAO believes that any residual effects on the ability of First Nations to continue to practice aboriginal rights, and to carry out traditional activities, are not significant, and that impact any on established and admitted rights are justifiable.⁹⁰</p>	<p><u>Finding:</u> The Panel has determined that the loss of the Teztan Biny (Fish Lake) and Nabas areas for current use activities, ceremonies, teaching, and cultural and spiritual practices would be irreversible, of high magnitude and have a long-term effect on the Tsilhqot’in.</p> <p>The Panel concludes that the Project would have a significant adverse effect on the Tsilhqot’in Nation regarding their current use of lands and resources for traditional purposes and on cultural heritage resources.⁹¹</p>

⁹⁰ Recommendations of the Executive Director, December 17, 2009, p.23.

⁹¹ Federal Review Panel Report, p.203.

Background:

Some context and background is necessary to understand how the BC EAO and Federal Review Panel approached impacts to traditional land uses and cultural heritage.

Prior to 2002 the BC *Environmental Assessment Act* required the “timely and integrated assessment of the environmental, economic, social, cultural, heritage and health effects of reviewable projects.” In 2002 the Liberal government repealed that Act and replaced it with new legislation that removed the word “cultural” from the list of effects that were to be assessed. Although the Act continues to reference “social” and “heritage” effects, policy guidance published by the EAO does not clearly link those with cultural effects, so it is difficult to know whether the BC EAO believes that assessment of cultural effects is required or desirable. One can only look to how cultural issues are addressed in assessments.

By contrast, the Canadian Environmental Assessment Act requires assessment of the “cultural heritage” effects of a project, which are incorporated into the definition of environmental effects:

“any change that the project may cause in the environment, including any effects of such change..., on physical and cultural heritage, on the current use of lands and resources for traditional purposes by aboriginal persons, or on any structure, site or thing that is of historical, archaeological, paleontological or architectural significance.”

The Canadian Environmental Assessment Agency has produced a Reference Guide on Physical and Cultural Heritage Effects that provides further guidance as to how cultural heritage is understood:⁹²

For the purposes of this guide, cultural heritage resource is a human work or a place that gives evidence of human activity or has spiritual or cultural meaning, and that has historic value. Cultural heritage resources are distinguished from other resources by virtue of the historic value placed on them through their association with an aspect(s) of human history. This interpretation of cultural resources can be applied to a wide range of resources, including, cultural landscapes and landscape features, archaeological sites, structures, engineering works, artifacts and associated records.

This suggests that the meaning people place on a given area is an important factor in assessing the effects of a project. It stands to reason that decision-makers would want to know about these factors to understand the full consequences of their decisions. For example, demolition of a dilapidated residential school where abuse occurred may be different than demolition of a historic church, synagogue or mosque similar in size or location. Industrial effluent proposed to be released into Vancouver’s drinking water supply is different than the same effluent going into receiving waters in an industrial zone, even at safe levels. Logging of mountain pine beetle wood in a remote area is different than logging the same volume of timber from Vancouver’s north shore

⁹² *The Canadian Environmental Assessment Act: Reference Guide on Physical and Cultural Heritage Resources*, p. 2, See also pp. 17-18.

viewscape. An open pit mine that destroys a productive fish lake in a pristine area with a long history of traditional use, cultural practices and spiritual meaning is very different than an open pit mine in a more remote area that seldom sees humans and has no fish.

The Federal Review Panel understood this, likely due to the guidance provided by CEAA itself. It is not clear that the BC EAO acknowledged the role of human meaning ascribed to historic, cultural and spiritual uses of the area by First Nations in its assessment.

EIS Terms of Reference:

The Terms of Reference jointly approved by BC and Canada for the Prosperity Mine assessment specified that the effects of the project on traditional land use and cultural heritage were to be assessed.⁹³

The EIS must identify the lands, waters and resources of specific social, economic, archaeological, cultural or spiritual value to Aboriginal people... The EIS must include, where available, information concerning traditional activities, including activities for food, social, ceremonial and other cultural purposes, in relation to such lands, waters and resources with a focus on the current use of lands, waters and resources for traditional purposes. Traditional land use may include areas where traditional activities such as camping, travel on traditional routes, gathering of country foods (hunting, fishing, trapping, planting and harvesting) activities were carried out. Spiritual sites must also be considered as a traditional use activity of significance to Aboriginal people. [p.38]

...
[The EIS] must contain a description of any changes in the environment caused by the Project, including the effects of these environmental changes on health and socioeconomic conditions, physical and cultural heritage, current use of lands and resources for traditional purposes by Aboriginal persons, and any structure, site or thing that is of historical, archaeological, paleontological or architectural significance.[p.39]

...
The EIS will provide preliminary information regarding:

- First Nations' interests at the mine site, and along the transmission line corridor and access roads;
- Current land uses in the vicinity of the mine site, transmission line and proposed substation, and access roads; and
- Potential areas that are of cultural importance to First Nations at the mine site, transmission line corridor and access roads. [p.85]

The Terms of Reference also required that traditional knowledge be incorporated into the assessment of these impacts:

Traditional knowledge may, for example, contribute to the description of the...use of lands and land and water resources.

...
Certain issues relevant to the review process are firmly grounded in traditional knowledge, such as harvesting, cultural well-being, land use, heritage resources, and others. In order for the EIS

⁹³ Taseko Prosperity Gold-Copper Mine Project, Final Environmental Impact Statement Guidelines/Application Terms of Reference, December 2008.

to meet the requirements of both the BCEAA and CEEA, the potential effects to be considered in the EA of the proposed project need to include direct and indirect effects on: environmental factors, including air and water quality, fish and other aquatic resources, wildlife, terrain and soils, and vegetation; other resource uses; economic and social factors; archaeological and other heritage and cultural resources; and health...Any potential effects on the exercise of First Nations' traditional uses and activities also need to be identified and assessed. [pp.11-12]

It is worth noting that the Terms of Reference address traditional land use and cultural heritage separately from Aboriginal rights and title, as they are distinct concepts. For example, while traditional land use may amount to an Aboriginal right under the law, that might not be true of every traditional use depending on a number of factors. Destruction of a culturally valued place may impact a community and elders who seldom get there to exercise legal rights.

Taseko Mines Ltd. EIS:

Taseko's EIS acknowledged that the mine would result in losses to cultural heritage and traditional land uses, particularly for the Xeni Gwet'in (Nemiah Band).⁹⁴

- The cultural heritage effects of the proposed project at Fish Lake will be felt mainly by the Xeni Gwet'in since they have been using the area relatively continuously for at least the last 150 years.
- The loss of Fish Lake and disturbances within the mine footprint will result in the loss of an area that has important cultural meaning for many Tsilhqot'in people.
- Fishing activity at the existing Fish Lake would be lost but there is a reasonable expectation that fishing opportunities at a newly created lake (Prosperity Lake) would at least partially offset this loss.
- Cultural sites such as the remnants of the William family and Salomon family domiciles at Little Fish Lake will also be lost. [Appendix 8-2-B of Taseko's EIS states that historic use by the William family goes back to 1860 and area is spiritually significant because of cabins there, and that use continues to present. A separate report by Terra Archaeology indicated that cross-dating and information provided by First Nations' communities suggest the continual use of the Fish Lake locality the last 5,500 years (EAO Assessment Report, p.96)].
- The transmission line is also likely to affect cultural heritage values both for the Tsilhqot'in and the Upper Secwepemc, but the ethnographic information for the corridor is not as well documented as it is for Fish Lake.
- "trapping and fishing ... have a deep spiritual significance to individuals that use the mine development area";

The EIS commented on the significance of the loss of Fish Lake in particular to First Nations and others:

⁹⁴ Taseko Mines Ltd., Prosperity Copper-Gold Project EIS, March 2009, Volume 6, p.3-51,52, and Ehrhart-English Report, p.49.

The cultural values of the lake, whether they be First Nations or others, would be altered significantly as well. A large open pit, with associated high walls would be visible several hundred metres to the north of the lake. A 100 metre high embankment to the south would also be visible, with the toe of the embankment at the southern end of the water interface. The proximity and size of these structures would presumably alter the future cultural attributes of the lake."

Taseko determined that "movement or modification of the tailings pond to avoid historical sites at Little Fish Lake was considered not feasible for economic reasons," but proposed the following mitigation for these impacts:

- control local hunting pressure and preserve opportunities for First Nations hunters displaced by the mine;
- address lost trapping territories;
- address displaced ranching activity;
- replace and enhance the First Nations' food/ceremonial fisheries as noted in the Fisheries Compensation Plan

The Federal Review Panel noted that "some information was available in the EIS" but that it received most of its evidence during the hearing process. However, even based on the above information alone, it is difficult to understand how the BC EAO could find that these impacts reported in the EIS were not significant.

BC EAO:

The Executive Director's Recommendations Report does not address traditional land uses and cultural heritage in the tables outlining potential impacts. It does address "social impacts," but only mentions increased vehicular traffic and where workers would live in terms of impacts to the provision of community services.

The Recommendations Report does address "First Nations Interests" (which will be discussed in the following section of this report) but it seems that the report blurs or melds the distinctions between traditional land use, cultural heritage issues and Aboriginal rights.

The EAO Assessment Report does not fill out this picture. It did not address traditional land use and cultural heritage effects in a considered or focused manner, although it occasionally uses these terms in other discussions. Page 85 of the report references Taseko's commitment to prepare a "Cultural and Heritage Protection Plan" in consultation with First Nations to convert proposed mitigation measures into actions intended to minimize or eliminate impacts during the construction, operation and de-commissioning phases of the mine. It is not clear whether the EAO was relying on this extensively to address cultural and heritage impacts because there is little discussion, however, to do so would be an unwarranted deferral of a major issue, and would unjustifiably assume these impacts could be adequately mitigated by tweaking operations in some way.

Appendix B to the Assessment Report contains an "Issue Tracking Table" for "Aboriginal Interest and Cultural Heritage" issues raised by First Nations in response to Taseko's EIS, but this is more of a point/counterpoint record about the adequacy of the EIS rather than EAO analysis of the issues.

The main context in which the EAO Assessment Report addresses traditional land use and cultural heritage issues is in its discussions of Aboriginal rights and title. This is unfortunate because it seems that the EAO conflated the two issues, and attention was diverted to the legal issues around Aboriginal rights and title and litigation between the Tsilhqot'in and the Province. The report reads as if the EAO was concerned that finding significant adverse effects to Tsilhqot'in traditional land use and cultural heritage would be tantamount to a legal admission that was contrary to the position being taken by British Columbia in litigation. The EAO noted that in its Statement of Defence the Province admitted that members of the Tsilhqot'in Nation possess aboriginal fishing rights but that the right does not include:⁹⁵

- an attachment to lands and resources in Fish Lake;
- the protection and conservation of the cultural, ecological and spiritual integrity of the lands, waters and resources in Fish Lake; or,
- the right to a particular quantity and quality of fish and fish habitat at Fish Lake.

Given that the Attorney General was taking this legal position, did the EAO as an agent of the Crown feel that it was free to find that the traditional land use and cultural heritage impacts of the mine were significant and adverse? If not, would this unduly compromise the integrity of the assessment? If I am correct that traditional land use and cultural heritage impacts are separate and distinct from Aboriginal rights, this need not be a problem, but there is some potential overlap between the two.

Another aspect of the problem in the handling of these issues was the lack of trust between the Tsilhqot'in Nation and the EAO. The Minister's decision to abandon the joint review panel approach in favour of a separate provincial assessment by EAO staff was a major breach in the relationship because it was perceived as bias in favour of Taseko. The Executive Director acknowledges in his Recommendations Report that the Tsilhqot'in Nation repeatedly stated that the Minister's decision was "unfair, inappropriate and in bad faith."⁹⁶

But the practical consequence of this was that the loss of faith led the Tsilhqot'in Nation to cease their involvement in the provincial process and direct their efforts to preparing for the Federal Review Panel hearings, leaving the EAO without crucial information that it needed to properly understand and evaluate impacts to traditional land use and

⁹⁵ EAO Assessment Report, pp.123-4.

⁹⁶ Recommendations of the Executive Director, December 17, 2009, p.14.

cultural heritage. The EAO stated that it had to rely on the EIS and its ethnohistorical reports, the BC Supreme Court's *William* decision, and "TNG submissions to the federal review panel" (which presumably were the Tsilhqot'in Nation's initial indications of concern because the hearings had not yet been held).

In the end, to the extent that it addressed traditional land use and cultural heritage at all, the EAO concluded that there were no significant adverse effects, despite the strong acknowledgements in Taseko's EIS and supporting reports.

Federal Review Panel:

The Federal Review Panel's hearing process was where most of the information on traditional land uses and cultural heritage came forward from First Nations. As noted earlier, the Panel reported that:⁹⁷

...British Columbia reached conclusions of non-significance with regards to First Nations. British Columbia completed its review process in December 2009 and therefore, did not have the benefit of information collected during the federal Panel review process from January to May 2010. As noted above, the Panel received the majority of information concerning current use of lands and resources for traditional purposes, and concerning cultural heritage, during this period.

...
Additionally, given the limited participation of First Nations in the provincial working group, the Province also did not have the benefit of the extensive views and information presented by First Nations during the public hearing regarding the effects of the Project on their current use of lands and resources for traditional purposes, on cultural heritage and on potential and established Aboriginal rights and title.

...
The Panel found that, while some information was available in the EIS and the information review stages of the assessment, the majority of the information related to current use and cultural heritage was received during the public hearing process. This information was extremely valuable for all participants to understand how the Project would impact the current use of the region by First Nations people.

The Federal Review Panel made very strong findings that the mine would result in significant adverse effects that could not be mitigated:⁹⁸

- The Panel has determined that the loss of the Teztan Biny (Fish Lake) and Nabas areas for current use activities, ceremonies, teaching, and cultural and spiritual practices would be irreversible, of high magnitude and have a long-term effect on the Tsilhqot'in.
- The Panel concludes that the Project would have a significant adverse effect on the Tsilhqot'in Nation regarding their current use of lands and resources for traditional purposes and on cultural heritage resources.

⁹⁷ Federal Review Panel Report, p.154, 241, 174.

⁹⁸ Federal Review Panel Report, p.203.

- The Panel finds that given the substantial value of the Teztan Biny (Fish Lake), Y’anah Biny (Little Fish Lake) and Nabas areas to the Tsilhqot’in, it cannot recommend any measures that would mitigate the significant adverse effects of the Project on the current use of lands and resources for traditional purposes and cultural heritage by the Tsilhqot’in Nation at the proposed mine site, should the Project be allowed to proceed.

Issue #8: Effects on Aboriginal Rights and Title

Summary of Findings	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> The proposed Project would interfere with accepted aboriginal fishing rights. However, given:</p> <ul style="list-style-type: none"> • That the potential interference is minimal such that the rights are still meaningful notwithstanding the loss of Fish Lake; • The meaningful process of, and opportunities for, consultation and accommodation to date, including measures to mitigate the loss of the lake; and, • The regional and provincial importance of the proposed Project; <p>The interference is considered justifiable.</p>	<p><u>Finding:</u> The Panel concludes that the Project would have a significant adverse effect on established Tsilhqot’in Aboriginal rights, recognized and affirmed in the <i>William</i> case, as the area of the proposed mine site would no longer be available for their use in exercising these rights throughout all phases of the Project. The Panel was not made aware of any offers of compensation to offset losses other than a reference made by Taseko to the recently announced British Columbia revenue sharing policy.</p> <p>The Panel concludes that the effects of the Project on this asserted Aboriginal right [to fish] would be significant as the lake and its fishery would be destroyed and replaced with a waste rock storage area.</p> <p>The Panel notes that the established Tsilhqot’in rights to hunt and trap in the mine site area would be directly affected as they would no longer be able to exercise those rights until after the mine closed and the land was reclaimed. Even then, the restored landscape would be permanently altered.</p>

There are some important differences between the roles of the BC EAO and the Federal Review Panel when it comes to dealing with Aboriginal rights and title. As impact assessors, they both make determinations about the significance of the project’s effects on legal rights held by First Nations. As indicated in Issue #7 above, not all land use is the exercise of an Aboriginal right, but those that are attract different legal attention.

Given the constitutional obligations of each level of government respecting Aboriginal rights, it makes sense that decision-makers would need to know about the impacts of projects they approve on those rights or they could run afoul of a well established body of law addressing obligations to consult, accommodate and uphold the honour of the Crown.

But for the BC EAO the obligations go much further than advising decision-makers. The EAO sees itself as representing and carrying out the Crown's legal duties of consultation and accommodation of First Nations interests, whereas the Federal Review Panel was independent and does not attempt to represent the Crown in that same way. For this reason, the Terms of Reference for the Federal Review Panel specified that it was to "invite information from First Nations" to assist the panel in carrying out its mandate, which was expressed as follows:

The Panel shall fully consider and include in its report:

1. information provided by First Nations regarding the manner in which the Project may adversely affect potential or established Aboriginal rights or title; and
2. in the case of potential Aboriginal rights or title, information provided by the First Nation regarding the First Nation's strength of claim respecting Aboriginal rights or title.

The Panel will not have a mandate to make any determinations as to:

1. the validity of Aboriginal rights or title claims asserted by First Nations or the strength of those claims;
2. the scope of the Crown's duty to consult First Nations; and/or
3. whether Canada has met its respective duty to consult and accommodate in respect of rights recognized and affirmed by section 35 of the Constitution Act, 1982.

A separate Crown Consultation Coordinator was appointed by the federal government, and the role of the Panel was to gather information and provide advice to government. The Panel made it clear that in assessing Aboriginal rights it was following standard EA methodology:⁹⁹

The Panel interpreted its mandate to mean that it was required to examine all of these factors (environmental and matters related to Aboriginal rights or title) from the perspective of whether an effect would be adverse, whether, after the implementation of mitigation measures, it would be significant and whether it would be likely to occur. The Panel has followed the Canadian Environmental Assessment Agency's reference guide entitled "Determining Whether a Project is Likely to Cause Significant Adverse Environmental Effects" (November 1994) to assist it in this regard.

For some of the First Nations impacted by the Prosperity Mine project (the Xeni Gwet'in members of the Tsilhqot'in Nation) there had been a litigation history in which the BC Supreme Court affirmed the existence of Aboriginal rights other than title in the very area of the proposed mine (referred to in the EA documents as the *William* decision).¹⁰⁰

⁹⁹ Federal Review Panel Report, p.25.

¹⁰⁰ *Tsilhqot'in Nation v. British Columbia*, 2007 BCSC 1700 (CanLII).

This meant that the rights were far more than theoretical. BC EAO was taking on the Province's legal obligations toward First Nations, while the Federal Review Panel was required to objectively assess and report to the federal Minister of the Environment and public. The consequences were obviously larger for the EAO, because if it found that the mine project would likely infringe upon Aboriginal rights, a different set of legal consequences applied, including the obligation to ensure that the infringement was legally justified according the Supreme Court of Canada criteria, and possibly to ensure that there was proper accommodation or compensation for the infringement.

In the impact assessment field, "justification" is a term of art with a different meaning. Under CEAA, a responsible authority (e.g. Fisheries and Oceans Canada) cannot make the approval decision that triggered the assessment if the significant adverse effects cannot be "justified." For example, section 20 says:

where, taking into account the implementation of any mitigation measures that the responsible authority considers appropriate, the project is likely to cause significant adverse environmental effects that cannot be justified in the circumstances, the responsible authority shall not exercise any power or perform any duty or function conferred on it by or under any Act of Parliament that would permit the project to be carried out in whole or in part.

CEAA has established some norms for impact assessment due to its application across Canada, its long history, and the fairly robust policy development that supports it. Some of the language and practices of CEAA have been adopted in BC; for example, even though the BC *Environmental Assessment Act* does not have the same provisions for significant adverse environmental effects or justification analysis, impact analysts frequently use this language because it has become standard in the profession. Hence, the BC EAO carries out "justification analysis" when significant adverse effects are identified. In this case, the Executive Director devoted three pages to such analysis. As might be expected, there is considerable debate around how justification analysis should be carried out so that is more than just a subjective determination "in the eye of the beholder."

But there is an important distinction between "justification" as required by courts for infringement of Aboriginal rights, and "justification of significant adverse effects" in environmental assessment. It appears that the EAO did not make this distinction, or at least not very clearly. For example, the Executive Director found that the project would "interfere with accepted aboriginal fishing rights," but that this was justifiable because:

- "The potential interference is minimal such that the rights are meaningful notwithstanding the loss of Fish Lake" [because there are "more than 20 lakes" to fish in];
- "The meaningful process of, and opportunities for, consultation and accommodation to date, including measures to mitigate the loss of the lake; and
- The regional and provincial importance of the proposed project."

Some elements of the legal test for justification of infringements might be here, but it seems to be a truncated version of the test and fairly minimalist effort for such a major decision. This area of law is too complex to discuss in detail here,¹⁰¹ but the broad outline of the justification test addresses the following questions:

1. Is the infringement in furtherance of a valid objective that is substantial and compelling?
2. If there is a substantial and compelling objective, has the honour of the Crown been upheld in light of the Crown's fiduciary obligation? This in turn is determined by asking:
 - a. Whether the process by which the Crown allocated the resource and the allocation of the resource reflects the prior interest of the holders of aboriginal title;
 - b. Has there been as little infringement as possible to effect the desired result?
 - c. Has compensation been paid?
 - d. Has the aboriginal group been consulted?
 - e. Has the Crown bargained in good faith?

Unlike the Federal Review Panel, the EAO did not find any other interference with Aboriginal rights or title. In doing so it seems to have adopted an approach that the BC Supreme Court rejected in the *William* decision (which the Province appealed). For example, the EAO stated:

The EAO is aware that the Fish Lake area in general is of importance to the Tsilhqot'in people...However, EAO has not received evidence which shows that the conduct of ceremonies on any specific tract of land associated with the proposed Project was an integral part of the distinctive culture of the Tsilhqot'in people prior to contact with Europeans. On the basis of available information provided through the EA process, the *William* case, or the ethnohistorical report cited earlier, EAO is not able to conclude that there is a *prima facie* case in support of such an aboriginal right, were it to be asserted.

Mr. Justice Vickers heard similar arguments in *Williams* and commented:

[1376] What is clear to me is that the impoverished view of Aboriginal title advanced by Canada and British Columbia, characterized by the plaintiff as a "postage stamp" approach to title, cannot be allowed to pervade and inhibit genuine negotiations. A tract of land is not just a hunting blind or a favourite fishing hole. Individual sites such as hunting blinds and fishing holes are but a part of the land that has provided "cultural security and continuity" to Tsilhqot'in people for better than two centuries.

The EAO's line of reasoning also seems similar to that rejected by the Supreme Court of Canada in the *Mikisew Cree* case:¹⁰²

¹⁰¹ Readers may wish to refer to the lengthy analysis in the *William* decision about whether forestry infringements were justified in the same Claim Area, at paras. [1082] to [1141] and [1289] to [1294].

¹⁰² *Mikisew Cree*, 2005 SCC 69 (CanLII).

[3] ...The fact the proposed winter road directly affects only about 14 Mikisew trappers and perhaps 100 hunters may not seem very dramatic (unless you happen to be one of the trappers or hunters in question) but, in the context of a remote northern community of relatively few families, it is significant.

[46] The arguments of the federal and Alberta Crowns simply ignore the significance and practicalities of a First Nation's traditional territory. Alberta's 23 square kilometre argument flies in the face of the injurious affection of surrounding lands as found by the trial judge. More significantly for aboriginal people, as for non-aboriginal people, location is important. Twenty-three square kilometres alone is serious if it includes the claimants' hunting ground or trapline.

However, a larger issue may be whether the EAO can objectively and neutrally assess these matters, and whether it truly has the mandate and authority to carry out the Crown's obligations toward First Nations. In this case, the fairness and impartiality of the Minister's decision to establish a separate provincial process for the assessment was very much disputed by the Tsilhqot'in Nation, to the extent that they stopped participating, but the EAO was unlikely to adjudicate its own process and find it wanting. Many First Nations find that the EAO is not truly empowered to accommodate infringements of Aboriginal rights, and similar frustration throughout the province has led to a call for major reforms to the structure and delivery of environmental assessment in British Columbia.¹⁰³

As noted earlier, the EAO referenced litigation brought by Chief Marilyn Baptiste on behalf of the Xeni Gwet'in, noting the legal position taken in British Columbia's Statement of Defence which stated:¹⁰⁴

...the right to fish for food, social and ceremonial purposes does not include:

- an attachment to lands and resources in Fish Lake;
- the protection and conservation of the cultural, ecological and spiritual integrity of the lands, waters and resources in Fish Lake; or,
- the right to a particular quantity and quality of fish and fish habitat at Fish Lake.

The EAO's assessment fell in line with this position. Realistically, could the EAO come to a conclusion that contradicted the Province's legal position? It seems that by attempting to carry out the Province's consultation duties for the project, and also attempting to neutrally assess the impacts of the project, the EAO was in a conflict.

By contrast, the Federal Review Panel, independent and not charged with carrying out the federal Crown's obligations toward First Nations, found numerous significant adverse effects to Aboriginal rights.¹⁰⁵

¹⁰³ These issues have been canvassed at length elsewhere, including in *Environmental Assessment and First Nations in BC: Proposals for Reform*, First Nations Energy and Mining Council, August 2009; and *Environmental Assessment in British Columbia*. Environmental Law Centre, University of Victoria, 2010. pp.70-75.

¹⁰⁴ EAO Assessment Report, pp.123-4.

- The Panel also heard that it is unlikely that the Tsilhqot'in would use the area to exercise their Aboriginal rights due to the perception of contamination.
- The Panel has also considered Taseko's proposed mitigation measures including the establishment of a no hunting zone for the Project area. The Panel believes that this proposed mitigation would limit the ability of First Nations to practice their established Aboriginal right to hunt and trap in the Project area and may impact their Aboriginal rights to hunt and trap in other areas within the territory due to increased pressures on wildlife populations elsewhere.
- The Panel also notes that no compensation has been offered by Taseko other than a reference to the recently announced British Columbia revenue sharing policy with First Nations.
- The Tsilhqot'in consistently reiterated their spiritual connection with the land, the relationship between the land and current use activities for traditional purposes and how Project related changes would negatively affect this spiritual connection. Based on this information, the Panel has determined that the effect of the Project on the established Tsilhqot'in Aboriginal rights would be irreversible.
- Even with reclamation, the landscape at the proposed mine site would be permanently altered. Many of the values that First Nations associate with the Teztan Biny (Fish Lake) area would be lost and the effects would be irreversible. In the Panel's view, the values of the land to the Tsilhqot'in would be considerably diminished.
- Further, if the Project proceeds, it could result in the loss of evidence of continuous occupation and could therefore potentially affect their claim to Aboriginal title. Archeological artifacts not protected under the provisions of the provincial Heritage Conservation Act or by mitigation measures proposed by Taseko would be particularly at risk.
- The Panel concludes that, depending on the size of the land settlement through the treaty process, the Project may result in a significant adverse effect on any such title that could be granted to the Esketemc (Alkali Lake Band) and the Stswecem'c/Xgat'tem (Canoe Creek Band).
- The Panel also notes that while it has provided recommendations that should be implemented should the Project proceed, it does not believe that these recommendations would eliminate or accommodate the significant loss First Nations would experience as a result of the Project.

The differences between the Federal Review Panel and BC EAO assessment of the mine's impact to Aboriginal rights are stark, and many of these issues go well beyond the future of Fish Lake itself.

¹⁰⁵ Federal Review Panel Report, pp.217-220, 245.

Issue #9: Effects on Future Generations

Summary of Findings	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> The costs of the proposed Project would be borne by both the present and future generations with the loss of Fish Lake and Little Fish Lake. Should Prosperity Lake become successful viable fish habitat as anticipated, the relative costs to future generations would be reduced.</p> <p>Benefits would also accrue to the future generation as a consequence of community development.</p> <p>Therefore, there is no expected cost to future generations, except the loss of Fish Lake and Little Fish Lake. These may be offset, either wholly or partially, by the compensatory values of Prosperity Lake.</p>	<p><u>Finding:</u> [T]he schedule of obligations included in the final provincial performance measures...only require Taseko to operate Prosperity Lake and be responsible for the measures listed in the EIS for the 'life of mine', defined as "the time period in which the mine is operational".</p> <p>The Panel is concerned that the proposed fish and fish habitat compensation works could become a burden to future generations as it would likely require ongoing maintenance and re-stocking of fish on a continuing basis for an undetermined period.</p> <p>The Panel concludes that [the] Project would result in the inability of the fisheries resource in the Teztan Yeqox (Fish Creek) watershed and the South Chilcotin grizzly bear population to meet the needs of present and future generations.</p>

One of the purposes in the *Canadian Environmental Assessment Act* is "to encourage responsible authorities to take actions that promote sustainable development." Sustainable development is defined to mean "development that meets the needs of the present, without compromising the ability of future generations to meet their own needs."¹⁰⁶

There are no similar purposes in the *BC Environmental Assessment Act* today. In 2002 the current government repealed the section of the former Act which stated that the first purpose of the legislation is "to promote sustainability by protecting the environment and fostering a sound economy and social well-being."¹⁰⁷ However, the jointly approved Terms of Reference for the Prosperity Mine Assessment required that the EIS address future generations in the following ways:

The proponent must include in the EIS consideration of the extent to which the Project contributes to sustainable development. In doing so, the proponent should consider...the capacity of renewable resources that are likely to be significantly affected by the Project to meet the needs of present and future generations.

¹⁰⁶ *Canadian Environmental Assessment Act*, SC 1992, c.37, ss.2,4.

¹⁰⁷ *Environmental Assessment Act*, RSBC 1996, c.119, s.2.

The proponent must indicate how the precautionary principle was considered in the design of the Project [to]... demonstrate that all aspects of the Project have been examined and planned in a careful and precautionary manner in order to ensure that they do not cause serious or irreversible damage to the environment and/or the human health of current or future generations;

The analysis should focus on the identification of potential adverse effects of the Project on the ability of future generations of Aboriginal people (up to seven generations) to pursue traditional activities or lifestyle.

Taseko Mines Ltd. maintained that "with development of Prosperity Lake and reclamation the landscape will no longer be affected; thus, there will be no impact on future generations."¹⁰⁸

The BC EAO, perhaps because it only found one significant adverse effect that could be adequately mitigated or justified, did not really examine impacts to future generations. Its reports include the occasional reference to future generations, such as those in the box above, which mention the loss of Fish Lake and Little Fish Lake, but also the benefits "should Prosperity Lake become successful" and offset, "wholly or partially," the loss of fish and fish habitat. "Future generations...would bear the risk that Prosperity Lake does not provide successful viable fish habitat"¹⁰⁹ (these statements seem to acknowledge uncertainty about the compensatory value of Prosperity Lake). In his Recommendations Report the executive director indicates that any such risks were balanced by the social and economic benefits to the current, next and future generations from employment, contracting opportunities and community development.¹¹⁰

While the EAO noted that social and economic benefits would flow for the next 22 years and possibly beyond, it failed to address the critical issue of ongoing maintenance of the elaborate infrastructure of reconstructed streams, spawning channels, Prosperity Lake, the tailings storage facility, Pit Lake, etc. after the mine closed. This is a key issue that the Federal Review Panel noticed due to the time limitation on Taseko's responsibilities the provincial ministers had placed in the Environmental Assessment Certificate and the above-noted "Performance Measures":

The Federal Review Panel ...notes that the schedule of obligations included in the final provincial performance measures (dated December 4, 2009) only require Taseko to operate Prosperity Lake and be responsible for the measures listed in the EIS for the 'life of mine', defined as "the time period in which the mine is operational".

As noted above, Fisheries and Oceans Canada did not have a cost estimate from Taseko for the proposed compensation works, but advised the Panel that it "would

¹⁰⁸ EAO Assessment Report, Appendix B.

¹⁰⁹ EAO Assessment Report, p.146.

¹¹⁰ Recommendations of the Executive Director, December 17, 2009, pp.21-22.

expect that it would be a fairly significant expense in the order of many millions of dollars.”¹¹¹ The Panel concluded that:¹¹²

Based on the information received, the Panel is of the opinion that the proposed fish and fish habitat compensation plan would require ongoing human intervention in the long term. ...The Panel is concerned that the proposed fish and fish habitat compensation works could become a burden to future generations as it would likely require ongoing maintenance and re-stocking of fish on a continuing basis for an undetermined period.

The Panel was also concerned about the need for ongoing treatment of contaminated surface water emanating from the open pit over time. Noting that water discharge from the open pit until Year 44, the Panel concluded that “in order to meet water quality objectives, it would be likely that the discharge water would require treatment” and found:¹¹³

Taseko identified water treatment as a contingency measure only, but the Panel has concluded that water treatment would likely be required into the far future, thus potentially creating a future burden for governments.

Concerns about taxpayer liability for contamination following mine closure, due to inadequate security being obtained by the BC government, have been noted by the BC Auditor General and other reviewers.¹¹⁴ These factors were a major part of the concerns expressed by a Joint Review Panel established to assess the Kemess North Copper-Gold Mine Project in 2007.¹¹⁵ It is surprising that the issue was not addressed by the BC EAO, although it may have assumed the issue would be addressed at the *Mines Act* permitting stage.

The Federal Review Panel evaluated more expansively the mine’s effects to future generations in additional ways. Some of the concerns it noted based on information received through the hearing process include the following:¹¹⁶

The Panel also heard that the transfer of intergenerational knowledge occurs through hunting and trapping activities out on the land. Many of the youth who presented to the Panel conveyed stories of how their parents, uncles or other community members had taken them onto the land to learn to hunt. During these times stories would be told and lessons given, thereby transferring knowledge of the cultural practices and language between generations.

¹¹¹ Report of the Federal Review Panel, p.90.

¹¹² Report of the Federal Review Panel, p.97.

¹¹³ Report of the Federal Review Panel, p.243.

¹¹⁴ Auditor General of British Columbia, *2002/2003 Report 5: Managing Contaminated Sites on Provincial Lands* (Victoria: BC Government, 2003). See also “Is British Columbia Failing to Plan For and Close Mines Responsibly?” at <http://technology.infomine.com/articles/1/8004/closure.environmental.reclamation/is.british.columbia.aspx> ; and Stano, Maya, *The Raven Mine: A Regulatory and Fiscal Black Hole?*, Environmental Law Centre, University of Victoria, 2011, p.22, online at http://www.elc.uvic.ca/publications/documents/2010-02-03-RavenMine-RegulatoryandFiscalBlackHole_Stano.pdf.

¹¹⁵ Kemess North Copper-Gold Project, Joint Review Panel Report, September 17, 2007, pp.195-197.

¹¹⁶ Report of the Federal Review Panel, pp.184,192,201,203.

Patt Larcombe, on behalf of the Tsilhqot'in National Government, summarized the Tsilhqot'in connection to the Teztan Yeqox (Fish Creek) watershed as a place where the intergenerational transmission of traditional knowledge and traditional skills would occur.

Bonnie Myers reiterated this position during the public hearing and noted "Fish Lake offers a luxurious view, relaxation, freedom, a place where our people can teach our children and future generations our culture, our traditions, our values and our legends."

First Nations spoke about spiritual balance, their natural laws, including the importance of sustainability for seven generations, and their role in protecting the land as environmental stewards and provided information on steps they have taken to support this role (e.g. the Nemiah Declaration);

The Panel heard from participants that they were not opposed to development, but were only interested in sustainable, culturally appropriate development opportunities that would sustain the local economy for future generations.

The Federal Review Panel also commented that project impacts to fish and grizzly carry with them impacts to future generations:¹¹⁷

The grizzly bear is an important species for its intrinsic value, its spiritual value to First Nations and its value to tourism in the area. A further reduction in the population would mean that it may no longer be present for future generations to enjoy.

The Panel concluded that the "Project would result in the inability of the fisheries resource in the Teztan Yeqox (Fish Creek) watershed and the South Chilcotin grizzly bear population to meet the needs of present and future generations."

5. Conclusions

This report is a comparative analysis of the two environmental assessments conducted for the proposed Prosperity mine – one provincial and the other federal. The question it attempts to answer is "How is it possible that two separate assessments conducted for the same project, using the same terms of reference and assessing the same issues, can end up with such dramatically different results?"

The federal review, which allowed for a transparent and open public hearing process with both community members and technical experts, identified an array of impacts that were determined to be significantly adverse. These include impacts to fish and fish habitat, grizzly bears, navigation, local tourism, grazing, trapping, First Nations' traditional land use and cultural heritage, Aboriginal rights and future generations. The federal process also concluded that the proponent's fish habitat compensation program was not viable, and that mitigation was not adequate, or in some cases not even proposed, for other adverse effects.

By contrast, the BC EAO's process, which concluded months earlier and before key information was available, found a single significant adverse effect – the loss of fish and

¹¹⁷ Report of the Federal Review Panel, p.222.

fish habitat at Fish Lake and Little Fish Lake – which the executive director determined could be adequately mitigated. Provincial agencies declined the Federal Review Panel’s invitation to take part in its hearings on the grounds that the provincial Environmental Assessment Certificate had already been issued and the EAO record spoke for itself.

While the analysis set out in the body of this report describes the assessment details for each of the different findings, the following common issues and themes run through the two assessments and help explain the different outcomes:

1. Process: The procedural differences between the provincial and federal processes played a role in the different conclusions and outcomes. The review and comment period provided by the EAO in March-May 2009 occurred before critical information was available, and therefore could not elicit the degree of detailed information as the Federal Review Panel hearings, particularly from participants who were outside of the Working Group. For example, by reviewing Taseko’s EIS and not commencing the public hearing process until it was judged to be sufficient, the Federal Review Panel provided the opportunity for Taseko to provide more information on issues that were likely to arise, and this enabled federal agencies, First Nations, their technical advisors and the public to have a better basis on which to understand and respond to the proposed mine project.

Secondly, the Review Panel hearing process itself provided a more open, transparent and accountable environment for fact-finding. Parties could ask each other questions and get a response, as opposed to submitting a letter or e-mail and not really knowing whether or how it was dealt with. It may also be easier to dismiss or ignore a letter or e-mail than a live witness who has given testimony concerning impacts to their traditional land uses, Aboriginal rights, business interests or favourite fishing lake. Paper-based review and comment periods can result in a failure to fully appreciate and comprehend the significance of impacts to those affected by a project.

Public hearing processes are part of the fabric of administrative procedure and fairness elsewhere in British Columbia, particularly at the local government level, for decisions that have far less import than such a major mine in a problematic location, with such divergent interests and public perspectives. Hearings are a key means of ensuring that decision makers learn from all sides of an issue, particularly for controversial decisions. They mark the difference between backroom decision-making and due process, with the goal of increasing public confidence and responding to the dictum that justice should not only be done, but should be seen to be done.¹¹⁸

In this case, the independence of the Federal Review Panel process was also likely critical for building and maintaining First Nations’ confidence in the objectivity and fairness of the process. The decision by British Columbia to abandon a joint review

¹¹⁸ Some public concerns about the BC EAO’s public participation process have been documented in *Environmental Assessment in British Columbia*. Environmental Law Centre, University of Victoria, 2010. pp.36-40.

panel in 2008 following objections by Taseko Mines Ltd. raised concerns about bias which continue, particularly given the considerable differences in EA outcomes.

2. Information: The different processes, and the timing of decision-making, meant that the Federal Review Panel (and hence federal Cabinet) had more complete information upon which to base their analysis. The EAO did not wait for critical information from Fisheries and Oceans Canada, and from First Nations and their expert advisors, leading to deficiencies in the factual record placed before the provincial ministers. The breach of confidence between First Nations and the EAO was partly responsible, but not the only reason for this. This includes key information concerning Taseko's proposed Fish and Fish Habitat Compensation Plan, impacts to grizzly bears and First Nations' traditional land use and cultural heritage. The provincial decision to approve the project was made on the basis of a deficient evidentiary record.

3. Expertise: The Federal Review Panel was highly qualified, with each of its members being impact assessment professionals with experience of mining projects (two of whom were on the federal Minister of the Environment's roster of ten across Canada). The Chair was an engineer with 27 years of experience with environmental assessment, five of which were as the Acting President of the Canadian Environmental Assessment Authority.

In terms of agencies, the information and analysis brought forward by Fisheries and Oceans Canada indicates a level of expertise and sophistication in assessing impacts to fish and fish habitat, and mitigation and compensation proposals that was not available in December 2009 when the BC EAO concluded its assessment.

In addition, through participant funding the Federal Review Panel was able to receive expert opinion from fisheries scientist Dr. Gordon Hartman (who responded to claims that the Prosperity Lake compensation proposal was based on his previous recommendations), and grizzly biologist Wayne McCrory: this provided a form of peer review of the EIS put forward by Taseko.

The provincial Assessment Report discloses four EAO staff on the working group for the assessment but does not indicate their qualifications or areas of expertise.

4. Significance Determinations: A key difference between the EAO and Federal Review Panel is how they assessed the significance of predicted adverse effects. This is a critical aspect of the environmental assessment process that leads to project design strategies to avoid, mitigate or compensate for those impacts. Taseko's EIS identified many of the adverse effects in question, but said they were not significant. The real question was whether that assessment was correct.

At first glance it appears that the EAO adopted similar criteria to CEAA processes, because its description of assessment methodology states that the criteria it followed are "generally consistent with the analysis used in federal environmental assessments

under the *Canadian Environmental Assessment Act*, although EAO has added the factor of 'probability'.¹¹⁹ However, in application the EAO seemed to discount the significance of local impacts to a surprisingly consistent degree. This represents a clear distinction between the findings of the two EA processes, running almost formulaically through the provincial assessment of impacts to fish, fish habitat, hunting, trapping, traditional land use, Aboriginal rights and tourism. As shown in several instances above, the real and obvious local impacts of the mine were "watered down" to the point of insignificance by quantifying them against a varying, large regional study area, sometimes including the whole Cariboo-Chilcotin region.

The Federal Review Panel followed a long established policy under CEEA found in the 1994 reference guide "Determining Whether a Project is Likely to Cause Significant Adverse Environmental Effects." That guide cautions practitioners that quantitative analysis methods:¹²⁰

...can be helpful in summarizing and comparing the effects of alternatives, but they can also hide the assumptions inherent in the weighting or ranking system. As well, weighting and ranking methods compare total effects, so that a locally significant individual effect may appear unimportant in the overall scheme. In other words, there is a loss of specificity. These problems can be at least partially resolved by ensuring that weighting and ranking exercises are conducted by those with a wide variety of experience and expertise.

The provincial assessment is replete with examples that demonstrate this problem: locally significant adverse effects were dismissed by resorting to quantitative analyses that minimized the impacts by assessing them against an unreasonably large geographic area. In my opinion is one of the main explanations for the divergent outcomes between the two processes.

5. Mitigation & Compensation: A related issue is the lack of clear mitigation and compensation policies to guide the BC EAO and environmental policy generally in British Columbia. This leaves the EAO somewhat rudderless when it comes to significance determinations because each and every adverse effect becomes an opportunity for negotiation. There will always be some degree of negotiation involved in whether a proposal is likely to meet a mitigation policy, such as Fisheries and Oceans Canada's No Net Loss policy, however, in the absence of established policies or regulatory guidance, even the environmental objectives are subject to negotiation. The longstanding Habitat Policy of Fisheries and Oceans Canada, and the standard expectation of mitigation or compensation for significant adverse effects in impact assessment methodology generally, accounts for many of the differences in the findings of the two processes.

Another significant difference between the two assessments is the EAO's willingness to accept commitments to further planning and procedures as amounting to actual

¹¹⁹ EAO Assessment Report, p.25.

¹²⁰ Determining Whether a Project is Likely to Cause Significant Adverse Environmental Effects, Reference Guide to the Canadian Environmental Assessment Act, 1994, p.192.

mitigation and compensation, effectively deferring the substantive aspects of mitigation and compensation to the future.

A July 2011 audit of the EAO by the BC Auditor General concluded that:

There is an absence of provincial legislation or policy concerning options for mitigation, including offsetting of environmental impacts resulting from major projects. This often leads to disagreement between proponents and ministry staff during the development of environmental mitigation measures.

The Auditor General recommended “that the EAO continue to work with the Ministry of Environment to finalize a policy framework that will provide provincial guidance on environmental mitigation.” The scope of the audit focused on post-certificate problems, and found that the EAO is failing to ensure that: 1) certificate conditions are measurable and enforceable, 2) monitoring responsibilities are clearly defined, and 3) compliance and enforcement actions are effective. Moreover, the Auditor General found that “The EAO is not evaluating the effectiveness of environmental assessment mitigation measures to ensure that projects are achieving the desired outcomes.”¹²¹

While the Auditor General’s report did not identify specific projects that gave rise to these findings, in my opinion many of the issues he identified are apparent in the EAO’s Prosperity Mine assessment.

Finally, a key difference that may explain the divergent outcomes is the extent to which the EAO is willing to defer important unresolved mitigation and compensation issues to the subsequent permitting stage, whereas the federal CEEA process necessitates that greater attention be paid to resolving these issues before a responsible authority can exercise the decision-making function that triggered the assessment.

6. Standards and Criteria: Any assessment of significant adverse effects occurs in the context of standards and criteria. For many of the “Valued Ecosystem Components” in the Prosperity EIS there are no standards in BC provincial legislation. For example, the BC Wildlife Act does not contain the types of prohibitions found in the federal Species at Risk Act, and there are no standards or criteria to measure impacts to wildlife and wildlife habitat against, even for threatened and endangered species. This is unfortunate because it leads to significance determinations that are highly subjective and malleable. In this assessment, the BC EAO dismissed wildlife-related concerns expressed by the provincial Ministry of Environment and missed significant adverse cumulative effects to the threatened South Chilcotin grizzly bear population. Under CEEA, the significance of adverse environmental effects is determined by a combination of scientific data, regulated thresholds, standards, social values and professional judgment. If there are no regulated thresholds or standards, the assessment becomes more subjective and flexible.

¹²¹ An Audit of the Environmental Assessment Office’s Oversight of Certified Projects, Office of the Auditor General of British Columbia. Report 4: July 2011.

7. Legislation: The BC Environmental Assessment is largely procedural and lacks many of the substantive aspects of CEAA. Key impact assessment concepts and terminology is not addressed or defined in the legislation. There are no decision-making criteria such as those that guide responsible authorities under CEAA. Because so much is not addressed in the legislation, the BC EAO also lacks the policies and reference guides that have been developed under CEAA to assist assessment practitioners. The Act would benefit by greater inclusion of assessment concepts and definition of key terms.

8. Independence: The independence of the Federal Review Panel likely accounts for some of the differences in the outcomes of the two assessments. This has been addressed above in relation to Aboriginal rights and the role the EAO sees for itself in carrying out the obligations of the provincial Crown, but it applies more broadly too. I do not wish to speculate about direct or overt political influence in the provincial EA process, but given that the two EA processes arrived at such different conclusions, and that the EAO found no significant adverse effects to anything other than fish and fish habitat in the face of some strong evidence to the contrary, the question inevitably arises as to whether the reporting relationship of the EAO to the relevant provincial ministers subtly or indirectly affects its judgment, objectivity and neutrality. The EAO has only once in its history recommended that a project not be granted an Environmental Assessment Certificate.

9. Sustainability Objective: Sustainability is not explicitly addressed in either the EAO or Federal Review Panel assessments, but I mention it because it seems to be an implicit factor in the Federal Review Panel's evaluation of impacts, and is one of the purposes of CEAA. Sustainability runs almost as an implicit subtext through the reasoning process of the Federal Review Panel. There was a similar sustainability objective in the BC Environmental Assessment Act but it was repealed in 2002 by the Liberal government.

Provincially, the failure to have clear mitigation requirements in place, coupled with the above issues for significance determinations, leads the EAO down the proverbial path to "death by a thousand cuts," no one of which may be significant in and of itself. If local impacts are rarely significant because one can always view them in a larger geographical context, and if there are no clear requirements for mitigation or compensation, First Nations can always be expected to exercise Aboriginal rights somewhere else, grizzly bears can move to the next valley, sports fishers can find another lake, tourists can find another lodge, etc. Obviously this is not a path to sustainability. Inconsistent EAO practice around cumulative effects assessment further contributes to this weakness.¹²²

¹²² *Environmental Assessment in British Columbia*. Environmental Law Centre, University of Victoria, 2010, pp.31-33.

"New Prosperity": Since the mine project was rejected by Canada in November 2010, Prosperity Mine Taseko Mines Ltd. has announced that it has redesigned its mine proposal and resubmitted to the Canadian Environmental Assessment Authority and BC EAO. The "New Prosperity" proposal apparently does not involve the destruction of Fish Lake. It is beyond the scope of this review to evaluate that new proposal, even if sufficient details were publicly available. However, by way of brief comment, it should be clear from this review that many of the significant adverse effects identified by the Federal Review Panel would likely continue to apply, as they extended well beyond fish and Fish Lake in particular: these include impacts to fish and fish habitat in the remainder of the watershed including Little Fish Lake, grizzly bears, traditional land use and cultural heritage, the Xeni Gwet'in trapline, grazing rights, local tourism, Aboriginal rights and title, and future generations.

Appendix A: Summary of EAO and Federal Review Panel Findings

Fish and Fish Habitat	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> "The loss of Fish Lake and Little Fish Lake is a one-time, permanent event with a significant adverse effect on fish and fish habitat at that location." These impacts "should be considered justified" because:</p> <ul style="list-style-type: none"> • "The Proponent's Fish Habitat Compensation Program [to create a man-made Prosperity Lake] would go a significant way to addressing impacts to the loss of Fish Lake." • "MOE supports the compensation plan and has indicated it will adequately address the relevant policy goals" 	<p><u>Finding:</u> "The Project would result in a significant adverse effect on fish and fish habitat in the Teztan Yeqox (Fish Creek) watershed. The Panel cannot recommend any measures that would mitigate the significant adverse effects..." In assessing the proposed compensation plan the panel noted:</p> <ul style="list-style-type: none"> • "there has been no experience with re-creating an ecosystem in which all these components function together on a self-sustaining basis" • The "plan would require ongoing human intervention in the long term" and "could become a burden to future generations" because the province only required Taseko Mines Ltd. to operate it "for the life of the mine." • "It would not replace the existing fish and fish habitat on a like for like basis" • "the Project's effects on fish and fish habitat would be high magnitude, long-term and irreversible and would include the loss of an area that was stated to be of value as both a First Nation food fishery and recreational fishery." • "the fish and fish habitat compensation plan poses an unacceptable level of risk that raises considerable doubt regarding its ability to meet the requirements of Fisheries and Oceans Canada's No Net Loss policy and to be a functioning, self-sustaining system in the future."
Grizzly Bears	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> "The EAO is satisfied that the proposed Project is not likely to have significant adverse effects on wildlife."</p>	<p><u>Finding:</u> The Panel concluded that the Project, in combination with reasonably foreseeable future forestry activities in the area, "would be likely to result in high magnitude, long-term effects on the South Chilcotin grizzly bear population"</p>

Xeni Gwet'in Trapline	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> No adverse effect on the right to hunt and trap is anticipated. As well, given [three factors addressed below]...any potential interference with the right is considered justifiable.</p>	<p><u>Finding:</u> The Panel concludes that the Project would not result in a significant adverse effect on trapping in the region, but would result in a significant adverse effect on the Xeni Gwet'in (Nemiah Band)/Sonny Lulua trapline that would be most affected by the mine site footprint.</p>
Grazing Rights	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> No finding made.</p>	<p><u>Finding:</u> The Panel concludes that the proposed mine site would result in a locally significant adverse effect on the users of the meadows within the Teztan Yeqox (Fish Creek) watershed due to the loss of grazing lands.</p>
Navigation	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> No finding made.</p>	<p><u>Finding:</u> The Panel notes that the Project's effects on navigation in the absence of effective mitigation measures would be high magnitude and irreversible. Therefore, the Panel agrees with Transport Canada's conclusion that the Project would have a significant adverse effect on navigation.</p>
Tourism	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> No significant adverse effects. While loss of tenure area, air quality effects, visual quality effects, and noise may result in reduced use, there is not expected to be an adverse effect on tourism in a regional context.</p> <p>Positive effects of the proposed Project would include road improvements and the potential for increased mine-related business that could result in increased revenues for operators in the LSA [<i>local study area</i>], particularly in the tourism off-season.</p>	<p><u>Finding:</u> The Project would not result in a significant adverse effect on tourism and recreation in the region, but would result in a significant adverse effect on Taseko Lake Outfitters tourism business.</p> <p>The Panel is of the opinion that Taseko Lake Outfitters would likely be forced to close if the Project proceeds because of its proximity to the mine.</p>

Traditional Land Use & Cultural Heritage	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> EAO believes that any residual effects on the ability of First Nations to continue to practice aboriginal rights, and to carry out traditional activities, are not significant, and that impact any on established and admitted rights are justifiable.</p>	<p><u>Finding:</u> The Panel has determined that the loss of the Teztan Biny (Fish Lake) and Nabas areas for current use activities, ceremonies, teaching, and cultural and spiritual practices would be irreversible, of high magnitude and have a long-term effect on the Tsilhqot'in.</p> <p>The Panel concludes that the Project would have a significant adverse effect on the Tsilhqot'in Nation regarding their current use of lands and resources for traditional purposes and on cultural heritage resources.</p>
Aboriginal Rights	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> The proposed Project would interfere with accepted aboriginal fishing rights. However, given:</p> <ul style="list-style-type: none"> • That the potential interference is minimal such that the rights are still meaningful notwithstanding the loss of Fish Lake; • The meaningful process of, and opportunities for, consultation and accommodation to date, including measures to mitigate the loss of the lake; and, • The regional and provincial importance of the proposed Project; <p>The interference is considered justifiable.</p>	<p><u>Finding:</u> The Panel concludes that the Project would have a significant adverse effect on established Tsilhqot'in Aboriginal rights, recognized and affirmed in the <i>William</i> case, as the area of the proposed mine site would no longer be available for their use in exercising these rights throughout all phases of the Project. The Panel was not made aware of any offers of compensation to offset losses other than a reference made by Taseko to the recently announced British Columbia revenue sharing policy.</p> <p>The Panel concludes that the effects of the Project on this asserted Aboriginal right [to fish] would be significant as the lake and its fishery would be destroyed and replaced with a waste rock storage area.</p> <p>The Panel notes that the established Tsilhqot'in rights to hunt and trap in the mine site area would be directly affected as they would no longer be able to exercise those rights until after the mine closed and the land was reclaimed. Even then, the restored landscape would be permanently altered.</p>

Future Generations	
BC Environmental Assessment Office	Federal Review Panel
<p><u>Finding:</u> The costs of the proposed Project would be borne by both the present and future generations with the loss of Fish Lake and Little Fish Lake. Should Prosperity Lake become successful viable fish habitat as anticipated, the relative costs to future generations would be reduced.</p> <p>Benefits would also accrue to the future generation as a consequence of community development.</p> <p>Therefore, there is no expected cost to future generations, except the loss of Fish Lake and Little Fish Lake. These may be offset, either wholly or partially, by the compensatory values of Prosperity Lake.</p>	<p><u>Finding:</u> [T]he schedule of obligations included in the final provincial performance measures...only require Taseko to operate Prosperity Lake and be responsible for the measures listed in the EIS for the 'life of mine', defined as "the time period in which the mine is operational".</p> <p>The Panel is concerned that the proposed fish and fish habitat compensation works could become a burden to future generations as it would likely require ongoing maintenance and re-stocking of fish on a continuing basis for an undetermined period.</p> <p>The Panel concludes that [the] Project would result in the inability of the fisheries resource in the Teztan Yeqox (Fish Creek) watershed and the South Chilcotin grizzly bear population to meet the needs of present and future generations.</p>