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November 15, 2016

Expert Panel
Review of Environmental Assessment Processes
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Avoiding the "Tyranny of Small Decisions":
A Canadian Environmental Assessment Regime for the 21st Century

INTRODUCTION AND OVERVIEW

I am pleased to make this submission to the Expert Panel as part of your review of federal environmental assessment (EA) processes. Briefly by way of background, I began my legal career in 2007 as legal counsel at Fisheries and Oceans Canada (DFO), where for almost six years my practice focused on the habitat protection provisions of the *Fisheries Act* and DFO's associated EA responsibilities, initially under the original *Canadian Environmental Assessment Act* (*CEAA, 1992*) and then under the *Canadian Environmental Assessment Act, 2012 (CEAA, 2012)*. I joined the University of Calgary – Faculty of Law in the summer of 2013, where my research and writing continues to focus on the federal environmental law regime, including EA, environmental monitoring, and adaptive management. All of this to say that the following submission observations and recommendations are based on my experiences as a former federal public servant, an EA practitioner, and as an environmental law scholar.

My submission is divided into two parts. For your convenience, Part I is organized as individual responses to the discussion questions posted on the Panel's website. Part II (beginning at page 15) contains a few additional observations about the nature of environmental law and EA law in particular that in my view should be kept in mind when designing a federal EA regime for the 21st century. This is followed by a summary of my main recommendations.

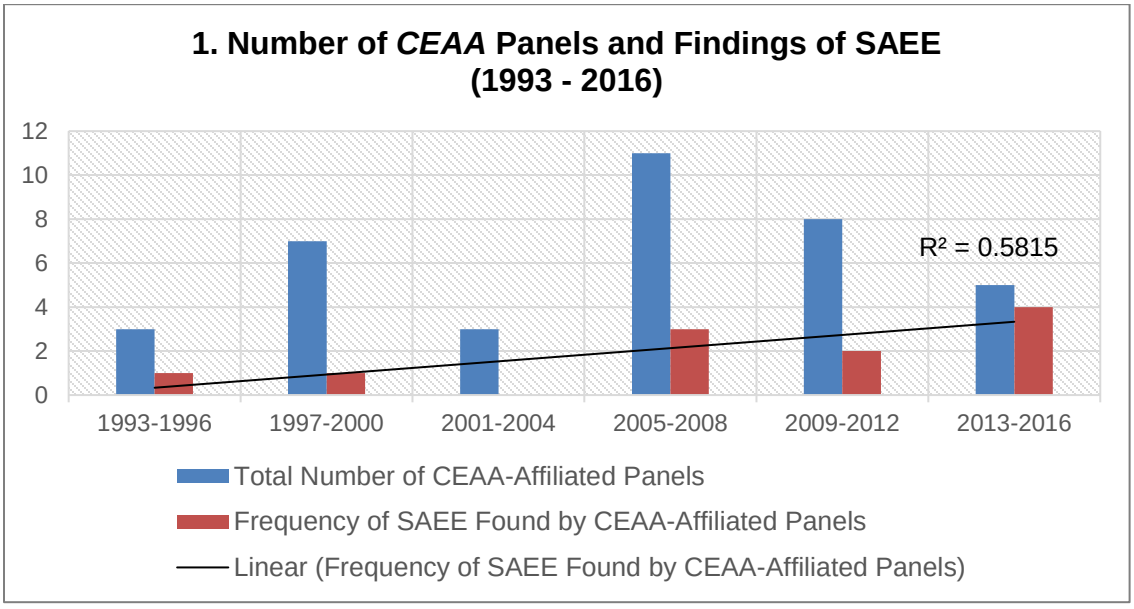
PART I: DISCUSSION QUESTIONS AND ANSWERS

1) Environmental Assessment in Context

Q1 - To what extent do current federal EA processes enable development in Canada that considers the environment, social matters and the economy?

At the individual project level, it is clear that there is *some* consideration of environmental effects, with a lesser consideration of social and economic matters – at least as a formal part of the EA process. Economic (especially government revenues) and social matters (especially jobs) seem to receive most consideration where Cabinet has deemed a project's significant adverse environmental effects "justified in the circumstances" per section 52, as in the case of the Pacific LNG and Site C projects. However, having read numerous EA reports over the past decade, as well as the court decisions that often follow them, it is difficult to avoid the conclusion that in many cases the process has become something of a routine step in the regulatory cycle – a *pro forma* exercise. Figure 1 below (gratefully borrowed from a paper written by University of Calgary J.D. candidate Christopher Philip) provides some evidence for this. It shows that the number of

projects found likely to result in significant adverse environmental effects (SAEE) has *increased* since the introduction of federal EA legislation in 1992, especially in the past 3 years:



Admittedly, there are several potential explanations for this trend, including an increased willingness by panels to conclude that SAEE are likely. The one conclusion that does not seem supported, however, is that the consideration of adverse environmental effects – and especially significant ones – is having an influence on the kinds of projects being proposed and ultimately approved by the federal government.

Outside of the individual project context, and specifically with respect to *strategic* EA (*i.e.* of policies, plans and programs), it appears that federal processes are failing**,** as evidenced by recent reports of the Commissioner for the Environment and Sustainable Development (CESD).[1] Presently, there is no legislative requirement for strategic EA at the federal level, only the *Cabinet Directive on the Environmental Assessment of Policy, Plan and Program Proposals*. As noted by the CESD, this Directive is essentially being ignored: audited departments "did not adequately apply the Cabinet Directive" and "did not report adequately on the extent and results of their strategic environmental assessment practices as required."

Q2 - What outcomes do you want federal EA processes to achieve in the future?

Ultimately, and at the risk of sounding simplistic, EA processes should encourage and facilitate economic development that is consistent with the principle of sustainable development and discourage, and perhaps even prohibit, that which is not. While I acknowledge that there is some debate about what exactly this principle entails, I agree with those scholars[2] who argue that the

[1] See http://www.oag-bvg.gc.ca/internet/English/att__e_41036.html

[2] For a recent discussion and defense of sustainable development, see Cheever, Federico and Dernbach, John C., "Sustainable Development and its Discontents" (2015) *Journal of Transnational Environmental Law*, available at: http://ssrn.com/abstract=2634664. According to the authors, "sustainable development will occur when (or if) there is no longer extreme poverty and widespread environmental degradation. Sustainable development would change the way in which individual development projects occur, eliminating adverse effects or reducing them to *de minimis* levels, and even creating positive environmental outcomes" (at 8).

basic idea is still the most sound as a basic guidepost: ""development that meets the needs of the present without compromising the ability of future generations to meet their own needs." As illustrated by Figure 1, above, it is not at all clear that either *CEAA, 2012* or its predecessor (*CEAA, 1992*) have been achieving this objective, which it bears noting has always been a statutory imperative (presently pursuant to section 4). Consequently, I support Professor Gibson's, Doelle's and Sinclair's proposal to shift towards sustainability assessment, a good working example of which can be found in the Lower Churchill JRP Report.

Q3 - How can federal EA support investor certainty, community and environmental wellbeing, the use of best available technology, certainty with respect to the protection of Aboriginal and treaty rights and timely decision making?

I make specific recommendations that address most of these issues in subsequent parts of this submission. Here, I will briefly mention a couple of overarching considerations for system design. The first is **to reduce the discretionary nature of the current EA process** to those circumstances where it is truly necessary, and to ensure that in those circumstances this discretion is appropriately constrained (*i.e.* through appropriate legislative "guideposts,"[3] such as taking into account the precautionary principle). Although politicians and bureaucracies tend to cling to broad discretionary decision-making powers, the reality is that many discretionary process points create delays and increase costs and uncertainty. Those familiar with the *CEAA, 1992* regime will recall the delays and uncertainty associated with project scoping (pursuant to what was then section 15), which was also often inconsistent – even among similar project types.[4] Discretionary provisions are also where regime implementation is at the greatest risk of straying from legislative intent.

A closely-related consideration is **transparency.** Aside from the EA reports themselves, there is relatively little transparency surrounding decision-making at critical process points, such as the determination of the scope of factors that will be considered. These determinations and the basis for them – including reasons setting out how they further the objectives of the legislation – should be part of the project file posted on the Canadian Environmental Assessment Registry. As I discuss further below, the Registry should also be reconfigured as a Canadian Environmental Assessment *and Project* Registry, containing not only EA documents but also subsequent federal approvals/authorizations, follow-up reports and proponent-generated monitoring data.

Another mechanism with respect to which we now have some experience is **timelines**. I think most observers would agree that timelines can be, and have been, useful for many project reviews. Concerns have been expressed, however, with respect to major resource projects whose environmental effects are difficult to assess, and specifically whether timelines are undermining the rigour of those assessments. Any future federal regime should address this concern by ensuring that rigour is not sacrificed for expediency.

Finally, I am largely in agreement with the Canadian Environmental Law Association's recommendation with respect to the creation of a permanent, independent, expert, quasi-judicial tribunal for conducting EAs. At the very least, any future federal EA regime should be accompanied with **the creation of an independent office or ombudsman** whose function would not be to conduct EAs but rather to review in a transparent manner those process steps, such as

[3] Dan Tarlock, "Is There a There There in Environmental Law" 19 J. Land Use & Envtl. L. 213 (2003-2004).
[4] See Marie-Ann Bowden and Martin Olszynski, "Old Puzzle, New Pieces: Red Chris and Vanadium and the Future of Federal Environmental Assessment" (2011) 89 Can. Bar. Rev. 445.

the scoping of factors to be considered and determinations with respect to effects, that are critical to effective EA. In some respects, this role could be considered analogous to peer-review in the academic context, while in others to the current auditing function carried out by the CESD, with the important difference that it would be carried out contemporaneously with, and integrated into, ongoing federal EAs rather than after the fact.

* NB: I address the incorporation of **best available technologies** (BAT) in Part II of my submission.

Q4 - How should federal EA processes address Canada's international and national environmental and social commitments, such as sustainable economic growth and addressing climate change?

Canada's international and national commitments should be reflected and integrated into Canada's EA legislation much as they are in other legal contexts, such as human rights and immigration and refugee protections laws. International commitments can and should play an important role in guiding the interpretation and application of Canada's EA legislation.

2) Overarching Indigenous Considerations

With respect to all of the questions under this theme, I generally defer to the submissions and representations made by Canada's Indigenous peoples. I do, however, make a few specific suggestions with respect to Questions 1, 2, and 4.

Q1 - How can federal EA processes better reflect and incorporate the multiple ways in which Indigenous Peoples may interact with federal EA, including as potentially affected rights holders, proponents of development, self-governing regulators, and partners?

From the perspective of potentially affected rights holders and self-governing regulators, the federal EA process would be well-served by recognizing and including mechanisms for coordinating federal reviews with reviews that may be carried out according to re-emerging Indigenous legal orders, as exemplified by the Tsilhqot'in Nation's Dasiqox Tribal park and the Tsleil-Waututh Nation's independent assessment of Kinder Morgan's TransMountain pipeline according to its traditional laws.

Q2 - How is the need to address potential impacts to potential and established Aboriginal and treaty rights best incorporated into the federal EA process?

Without purporting to speak on their behalf, it does seem to me that Canada's Indigenous Peoples are increasingly concerned about the cumulative effect that numerous projects on the landscape are having on their ability to exercise their rights. Although a couple of provinces and territories have moved forward with land-use planning regimes that have the potential to address cumulative effects, most notably Alberta, British Columbia and the Yukon, the majority have not. Further, those that have appear to have done so in breach of their constitutional duty to consult (see *e.g. Review Panel Report 2015 – Lower Athabasca Regional Plan*[5] with respect to the Lower Athabasca Regional Plan in Alberta and *First Nation of Nacho Nyak Dun v. Yukon (Government of)*, 2014 YKSC 69, with respect to the Peel Watershed Regional Plan). For its part, the federal

[5] Available online: https://www.landuse.alberta.ca/LandUse%20Documents/Lower%20Athabasca%20Regional%20Plan%20Review%20Panel%20Recommendations_2016-05-20.pdf.

government gave itself the authority to conduct regional environmental assessments in sections 73 – 75 of *CEAA, 2012*, but has yet to use this power.

Properly carried out, regional environmental assessment have considerable potential to address concerns about cumulative effects on Aboriginal and treaty rights, as recently noted in a study published by University of Saskatchewan Professor Bram Noble and PhD candidate Aniekan Udofia (see *Protectors of the Land: Toward an EA Process that Works for Aboriginal Communities and Developers*).[6]

On the other hand, failure to effectively address cumulative effects is likely to lead to further litigation and uncertainty. In fact, several First Nations have already sued provincial governments (the Beaver Lake Cree Nation in Alberta and the Blueberry River First Nation in British Columbia) for alleged breaches of Treaties 6 and 8, respectively, as a result of the adverse cumulative effect of development on their ability to exercise their rights. Although both cases are still in the early stages of litigation, the Beaver Lake lawsuit has already survived efforts by the Alberta and federal Crowns to have it dismissed. It is also worth noting that several authorities have suggested that governments have an obligation to assess the cumulative effect of development on treaty rights.[7] As further discussed below, regional environmental assessments hold the most promise for doing so effectively.

Q4 - What role should Indigenous traditional knowledge play in federal EA and what are some international best practices?

Under *CEAA, 2012*, whether or not Indigenous traditional knowledge is considered is a matter of a responsible authority's discretion per subsection 19(3). This is a paradigm example of an unnecessarily discretionary provision that creates uncertainty and can lead to frustration. In my view, Indigenous traditional knowledge should be a mandatory consideration in federal EA where it has been gathered and made available by affected Indigenous peoples.

3) Planning Environmental Assessment

Q1 - Under what circumstances should federal EA be required?

CEAA, 1992 was triggered by federal government decision-making. Pursuant to section 5, an EA was required where the federal government was a project proponent, an owner of land on which a project would be carried out, a financial lender, or a regulator. The exercise of these powers triggered an EA unless the project in question was specifically excluded in regulations. There were then three tiers of environmental assessment: screenings, comprehensive studies and panel reviews (mediations were also technically available but this option was never used), resulting in well over 3,000 environmental assessments per year, the vast majority of which were screenings. *CEAA, 2012* is triggered on the basis of a "major" project-list which roughly resembles the projects on the previous *Comprehensive Study List*. Since coming into force, roughly 65 EAs have been ongoing per year.

I agree with Professor Robert Gibson that regimes like *CEAA, 2012*, which focus exclusively on *major* projects and on mitigating *significant* adverse effects (both *CEAA,2012* and *CEAA,1992)*,

[6] Available online: http://www.macdonaldlaurier.ca/files/pdf/Noble-EAs-Final.pdf
[7] See *e.g.* Nigel Bankes, "The Implications of the *Tsilhqot'in (William)* and *Grassy Narrows (Keewatin)* decisions of the Supreme Court of Canada for the Natural Resources Industries," *Journal of Energy and Natural Resources Law* (20 May 2015): http://www.tandfonline.com/eprint/cx7sXDkCCgKyMrM298vX/full

"move us further away from sustainability, though usually only in small steps."[8] Over three decades ago, American ecologist William E. Odum described this process as the **"tyranny of small decisions"**. With respect to the eutrophication of lakes, for example, Odum noted that "[f]ew cases…are the result of intentional and rational choice. Instead, lakes gradually become more and more eutrophic through the cumulative effects of small decisions: the addition of increasing numbers of domestic sewage and industrial outfalls along with increasing run-off from more and more housing developments, highways, and agricultural fields."[9]

In my view, *CEAA, 1992* and *CEAA, 2012* could be viewed as representing opposite ends on a spectrum with respect to the number and kinds of federal EAs. Indentifying the optimum point on this spectrum is not an easy task but, consistent with the underlying theme of my submission, the Panel and ultimately Parliament should adopt an evidence-based approach. This would include examining and identifying the major drivers of environmental degradation in Canada, both right now but also in the future, bearing in mind especially the challenges associated with climate change.

Once these drivers have been identified, the mechanics become a secondary matter. Should the project-list approach be retained, it would be a relatively simple matter of revising that list – in a transparent manner – to include those projects that reflect the findings above. Alternatively, if the trigger approach were to be reinstated, it would be a matter of adjusting those triggers, including those on the previous *Law List Regulation* and the *Exclusion List Regulations*, all with a view towards ensuring that the regime reflects the findings referred to above.

To be sure, I am not proposing that every *Fisheries Act* section 35 authorization or every permit pursuant to the *Navigation Protection Act* should trigger an environmental assessment. In my submission to the Standing Committee on Fisheries and Oceans with respect to the changes to the Fisheries Act,[10] I advocate broader reliance on class authorizations (*i.e.* general permits) that would apply to "low impact" projects, where one of the primary conditions would be mere notification of these projects. Such a notification mechanism is necessary if regulators are to have any chance of monitoring and managing cumulative effects on the landscape.[11] Similarly, the future federal EA regime could make greater use of class EAs (*e.g.* class screenings) for what could be considered "medium impact" projects. Like general permits or class authorizations for low impact projects, class EAs would set out standard mitigation measures but would be accompanied by a more robust information-generating component: in addition to basic information about the project, proponents would be required to submit monitoring results (as required by the particular circumstances), which would then be made publicly available on an improved CEA Registry. This would be a *vast* improvement on the current *CEAA, 2012* regime, which only captures major projects and leaves an informational **black hole** with respect to all others.

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[8] Robert B Gibson, "Favouring the Higher Test: Contribution to Sustainability as the Central Criterion for Reviews and Decisions under the Canadian Environmental Assessment Act" (2000) 10:1 J Envtl L & Prac 39 at 43.

[9] William E Odum, "Environmental Degradation and the Tyranny of Small Decisions" (1982) 32:9 Bioscience 728.

[10] My submission is available here: https://law.ucalgary.ca/files/law/fopo-substantive-submissionolszynski.pdf

[11] See Eric Biber & JB Ruhl, "The Permit Power Revisited: The Theory and Practice of Regulatory Permits in the Administrative State" (2014) 64:2 Duke LJ 133 available on SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2397425

To get a concrete sense of this dearth of information, on 30 August 2016 I sent an access to information request to Fisheries and Oceans Canada, Parks Canada and Transport Canada, requesting their section CEAA 67 determinations with respect to projects on federal lands (for such projects, each department must determine whether they are likely to result in significant adverse environmental effects and, if so, those effects must be justified by Cabinet). To date, Parks Canada is the only department to have complied with this request, having recently (4 November 2016) sent me a list of approximately 1200 projects that they deemed not likely to result in significant adverse environmental effects in the past three years. Time did not permit a request for records to substantiate any of these determinations. Fisheries and Oceans Canada has yet to comply. Through initial correspondence with that department, it has become clear that they have not been tracking these projects; rather, the department appears to have conflated this *CEAA, 2012* requirement with its *Fisheries Act* section 35 regime. I have yet to hear from Transport Canada. In my view, the absence of any process and specificity in the section 67 regime has rendered it meaningless.

The question of triggering and intensity of federal EA may also be approached from a regional EA perspective. Recognizing that project size itself often has little bearing on the potential for significant environmental effects, regional environmental assessments could identify those areas currently facing increased environmental pressures, or which are of high ecological value, and impose increasingly rigorous EA requirements on that basis.

Finally, it is well past time that federal EA be required for plan, policies and programs.

Q2 - For project EAs, do you think the current scope and factors considered are adequate?

The current scope and factors to be considered are enumerated in section 19 of *CEAA, 2012*. Again, I agree with other commentators that the need for a project and project alternatives need to be reinstated as factors to be considered. As noted above (see 2.Q4), the consideration of Indigenous traditional knowledge should also be mandatory where it has been made available. As further set out in Q3 below, I also believe that climate change considerations and a project's effects on ecosystem services should also be added.

Equally important, in my view, is **clear direction to responsible authorities, review panels and the courts with respect to the *level or degree of consideration* that is required**. Recent case law from the Federal Court of Appeal has held that only "some consideration" is required, which even the Court admitted represents a "low threshold" (see *Ontario Power Generation v. Greenpeace Canada et al,* 2015 FCA 186). This is a critical issue that requires legislative redress. While the precise wording can be left to the legislative drafting stage, it should make clear that the consideration of environmental effects should be as rigorous and comprehensive as reasonably possible.

Q3 - Are there other things (effects, factors, etc.) that should be scoped into an EA?

1) **Climate change:** Bearing in mind the unprecedented challenge that climate change poses, the legislation should explicitly refer to climate change effects as a mandatory consideration in all EAs: this would include a project's greenhouse gas emissions, but also climate change's potential effects on the project and its environmental effects (*e.g.* would climate change be expected to mitigate or worsen the project's environmental effects?). Again, due to its unprecedented nature, this is not a matter that should be left to the discretion of those conducting EAs.

2) **Ecosystem Services:** Environmental assessment should move beyond merely identifying environmental effects and begin to translate these into losses and/or gains of "ecosystem services": the benefits people obtain from ecosystems.[12] Under the ecosystem services paradigm, nature is conceived of as a form of capital stock that, so long as it is maintained, gives rise to various services that are beneficial to humanity. These include provisioning services, such as fish for food or timber for construction, regulating services such as the absorption of CO_2 by forests or water filtration by wetlands, and cultural services, such as fishing and hiking opportunities. Presently, many of these services are neither assessed nor quantified, but when they are their economic value is usually significant. Most valuation studies of ecosystem services reveal non-market values in the hundreds of millions of dollars.[13]

   Importantly, the inclusion of ecosystem services assessment is not unprecedented in the Canadian EA experience. Evidence with respect to potential ecosystem services losses was introduced before the joint review panel for Enbridge's Northern Gateway project. The panel ultimately rejected this evidence, however, because it found "the estimated costs for damages to ecosystem goods and services [were] not well quantified and [were] based on a methodology that is not currently broadly accepted".[14] The concept of ecosystem services has also been relied upon by environmental appeals boards and municipal boards in assessing standing and weighing the environmental consequences of zoning applications.[15]

   Space does not permit a comprehensive discussion of this issue here, but I strongly urge the Panel to consider the potential for ecosystem services assessment in at least some cases (*i.e.* those where there is a potentially significant loss or reduction in ecosystem services because of their proximity to human populations). This is a matter for which the Panel should consider quickly convening relevant experts for the purposes of informing its views (as authorized in the Panel's Terms of Reference).[16]

Q4 - Under which circumstances should EA be undertaken at the regional, strategic or project-level?

Over fifty years ago, in "The Economics of the Coming Spaceship Earth," renowned economist Kenneth Boulding observed that "over a very large part of the time that man has been on earth, there has been something like a frontier. That is, there was always someplace else to go when things got too difficult… The image of the frontier is probably one of the oldest images of mankind, and it is not surprising that we find it hard to get rid of." This idea of a perpetual frontier, although now widely discredited, is nevertheless firmly embedded in most of Canada's current environmental and natural resources laws, including the project-by-project focus of *CEAA, 2012* and its predecessor *CEAA, 1992.*

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[12] Millennium Ecosystem Assessment (2005), online: http://www.millenniumassessment.org/en/index.html
[13] See *e.g.* PC Boxall et al, "Analysis of the economic benefits associated with the recovery of threatened marine mammal species in the Canadian St Lawrence Estuary" (2012) 36 Marine Policy 189-197 online at: http://www.sciencedirect.com/science/article/pii/S0308597X11000923.
[14] National Energy Board, 2013, *Report of the Joint Review Panel for the Enbridge Northern Gateway Project* (vols. 1 and 2) at p. 296.
[15] Roberto Pasten, Martin Olszynski and Michael Hantke, "Does Slow and Steady Win the Race? Ecosystem Services in Canadian and Chilean Environmental Law and Policy" (2016) Ecosystem Services (forthcoming).
[16] EA Review Terms of Reference: "Expert Advice Where expertise cannot be provided by the Multi-Interest Advisory Committee, the Panel may retain the services of other experts on certain subjects within its mandate"

Ideally, regional EAs would be the default – these would be carried out now throughout Canada to ensure that adequate baseline information has been gathered before the effects of climate change are such as to make such assessments meaningless. It should be noted that there are potentially significant efficiencies to be gained from conducting regional EAs, including reducing the need for each and every proponent to gather such baseline information. In addition, the carrying out of regional EA and the establishment of ambient thresholds for those aspects of the environment under federal jurisdiction such as air quality, water quality, and water quantity (flows) has the potential to bring considerable concreteness to the determination of significance, which could be measured in relation to those thresholds. For example, effects that would cause such thresholds to be exceeded, or that would move ambient conditions considerably in that direction, would be deemed significant.

As a second best alternative, regional EAs should be conducted in regions:

(i) where there is now, or will soon be, considerable pressure from development, and

(ii) deemed to be of high ecological value, bearing in mind that the *focus* of these assessments would be on environmental assets within federal jurisdiction (*e.g.* those currently enumerated in section 5(1) of *CEAA, 2012*, and especially fish and fish habitat and migratory birds).

Q5 - Who should contribute to the decision of whether a federal EA is required?

As per the above, the decision about whether an EA is required should be made automatically, with very limited discretion to exempt a project on an *ad hoc* basis. The Canadian public and Indigenous Peoples should have an opportunity to comment where an exemption is being proposed.

4) Conduct of Environmental Assessment

Q1 - Who should be responsible for conducting federal EA? Why?

One of the clear improvements from *CEAA, 1992* to *CEAA, 2012* was the centralization of EA responsibilities with the Canadian Environmental Assessment Agency. This resolved longstanding challenges associated with the previous *CEAA, 1992* process with respect to coordination. In my view, this centralization should be made complete by transferring the National Energy Board's (NEB) and Canadian Nuclear Safety Commission's (CNSC) EA responsibilities as well. Time has not permitted a systemic analysis of this issue, but anecdotally it does seem that EAs by both the NEB and the CNSC suffer from similar pathologies, including a tendency to conflate the scope of assessment with their regulatory mandates and to defer the assessment of some environmental effects to their own, largely internal, regulatory processes.

Q2 - What should be the role(s) of the proponent, Indigenous Peoples, the public, environmental organizations, experts, the government and others in the planning of, collection, analysis and review of EA-related science including community and Indigenous traditional knowledge?

I would not purport to speak on behalf of the various groups enumerated here. I will, however, take this opportunity to raise an issue that is of critical importance to ensuring credible EAs going forward, and that is **the relationship between proponents and the environmental consultant**

community (*e.g.* Stantec, Amec Foster Wheeler, Golder and Associates, as well as numerous smaller companies) that prepares the environmental impact statements (EIS) that form the basis for governments' review and subsequent EA reports.

Based on my experience and research, any future federal regime must include provisions requiring **an independent, arm's length relationship** between environmental consultants and the proponents for whom they are working, roughly analogous to the rules that apply to the financial auditing sector. There are simply too many potential conflicts of interest in the current regime that can exert a downward pressure on the quality and rigour of EA: proponents can "shop around" for companies that will produce favourable EISs, and cease doing business with those that do not; counsel for proponents can and are reviewing EISs and directing consultants on the content of those reports. These and other problems were documented by reporter Anne Casselman in her 2014 article in BC Business Magazine, "The Problem with (self-regulated) environmental assessments":

> Project proponents, who often lack in-house scientific expertise themselves, will hire…firms to conduct environmental assessments... The way [one interviewee] tells it, these are dark days for his work: "I've had my professional opinion heavily, heavily pressured. I've had my wording changed, my results changed. A lot of my interpretations have been changed.[17]

As with the incorporation of ecosystem services assessment (discussed above), I urge the Panel to exercise its mandate to have those with relevant expertise look into this matter further and provide their recommendations to the Panel.

Q3 - How can EA processes be improved to ensure a timely yet thorough process?

As per above, requiring a strict separation between proponents and the environmental consult community that prepares EISs is likely to result in the greatest gains in terms of thoroughness and timeliness; after all, the EIS is the foundation for all subsequent EA activity. It would also likely reduce the amount of litigation post-EA, at least in terms of the quality of those EAs.

In addition, the future federal EA regime could be accompanied with the creation of an independent ombudsman or officer whose function would not be to conduct EAs but rather to review in a transparent manner those process steps, such as the scoping of factors to be considered and significance determinations, that are critical to effective environmental assessment. This role would be somewhat analogous to academic peer-review, but also to the current auditing function carried out by the CESD, with the important difference that it would be carried out contemporaneously with federal environmental assessments, rather than after the fact.

Finally, and as noted in the section on regional EAs, these could greatly improve the efficiency of the EA regime by providing much of the baseline information that currently every proponent has to gather.

5) Decision and Follow-Up

Q1 - What types of information should inform EA decisions?

[17] Online: http://www.bcbusiness.ca/who-is-watching-bcs-environmental-watch-dogs

Ideally, the EA process, including the final decision as to whether a project proceeds, should be self-contained: all of the information that federal decision-makers are going to consider should be part of the public record and should be subject to potential challenge. This suggests that social and economic impacts should receive greater formal treatment earlier in the process. Some EAs have done this relatively well, including the Joint Review Panel Report for the Lower Churchill Hydroelectric Project, but others less so.

Q2 - What would a fair, transparent and trustworthy decision-making process look like?

A fair, transparent and trustworthy process would be one in which government decision-makers provide clear written reasons for their decision and explain, in a sequential order, how their decision is consistent – or not – with the principle of sustainable development and other enumerated "guideposts", including the precautionary principle, the polluter pays principles, etc.

Q3 - Who should participate in the implementation of follow-up and monitoring programs and how should that participation be encouraged or mandated?

In my view, the broader the participation the better. Indigenous and local participation through such things as environmental monitoring committees have proven effective (*e.g.* the Environmental Monitoring Advisory Board for the Diavik diamond mine[18]).

Importantly, such participation need not be complex or costly. Merely ensuring that all follow-up reports and monitoring data are available and searchable on a public registry – and the potential for public and academic scrutiny that comes with that – would likely have a significant positive effect on compliance, improving the quality of follow-up reporting and monitoring at a minimal cost to the government.

Q4 - Are enforceable conditions the right tool to ensure that the Government of Canada is meeting its EA objectives and, if so, who should have a role in compliance?

Yes, enforceable conditions are absolutely necessary and, as with Q3, would benefit from as many "hands on deck" as possible. Specifically, Canada should incorporate citizen suits into its EA legislation, suits which have long been a fixture of American environmental laws.

Q5 - Given that EA decisions are made in the planning phase of proposed actions, how should these decisions manage scientific uncertainty?

As a starting point, there is a urgent need to be clearer about what is meant by scientific uncertainty. Some degree of uncertainty is inherent in all decision-making affecting natural resources in that we cannot predict the future with absolute confidence. Nevertheless, when applying long-standing management actions or relying on established mitigation measures, we have a general sense that they will work. In these instances, regular monitoring should provide the information necessary to resolve residual uncertainties.

There is, however, another more fundamental kind of uncertainty, and that is with respect to the effectiveness of some mitigation measures, such as the creation of end pit lakes (EPLs) in the coal and oil sands mining context. In these instances, proponents have invoked, and Canadian courts have allowed, reliance on **"adaptive management"**, defined by the CEA Agency as "a planned and systematic process for continuously improving environmental management practices

[18] See http://www.emab.ca/

by learning about their outcomes."[19] Unfortunately, as practised in Canada (and around the world), adaptive management is rarely systematic or planned.

I have recently completed an empirical assessment of adaptive management in Alberta's energy resources sector.[20] The results confirm longstanding concerns about its implementation in the energy and natural resources development context. Figure 2 (below) illustrates the problem of varying conceptions: definitions of adaptive management are either missing or vary widely from accepted definitions, with most proponents erroneously invoking adaptive management as a general or routine strategy that ensures effective mitigation.

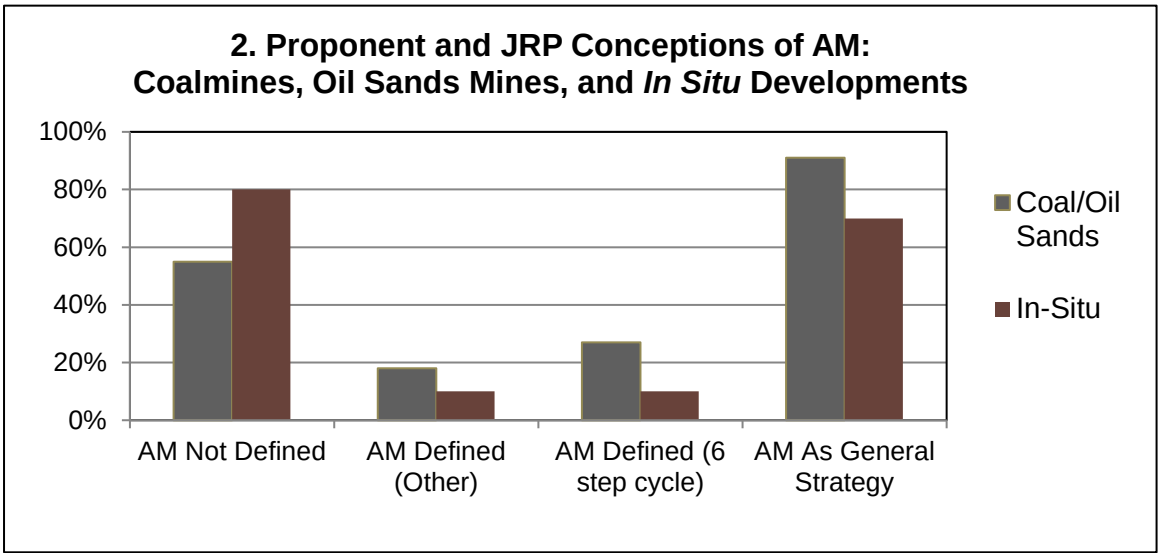


Figure 3 (below) confirms that little to no attention is being paid to experimental design; objectives, indicators, and thresholds for adaptation are generally missing, especially at the environmental assessment stage. This is consistent with misperceptions that adaptive management can be a routine strategy; it can only be routine if it is not being fully implemented – what leading U.S. scholars have described as "a/m lite": "Often a/m-lite fails even to structure a learning procedure, whether through experimentation, historical research, or modeling. Furthermore, lack of follow-through plagues implementation. This a/m-lite approach, in its most extreme form, is open-ended contingency planning or "on-the-fly" management that promises some loosely described response to whatever circumstances arise."[21]

[19] Government of Canada, Canadian Environmental Assessment Agency, *Operations Policy Statement Regarding Adaptive Management*, online: http://www.ceaa-acee.gc.ca/default.asp?lang=En&n=50139251-1.
[20] Martin Olszynski, "Failed Experiments: An Empirical Assessment of Adaptive Management in Alberta's Energy Resources Sector" (2016) (currently undergoing peer review).
[21] J.B. Ruhl & Robert L. Fischman, "Adaptive Management in the Courts" 95 MINN. L. REV. 424 (2010) at 441.

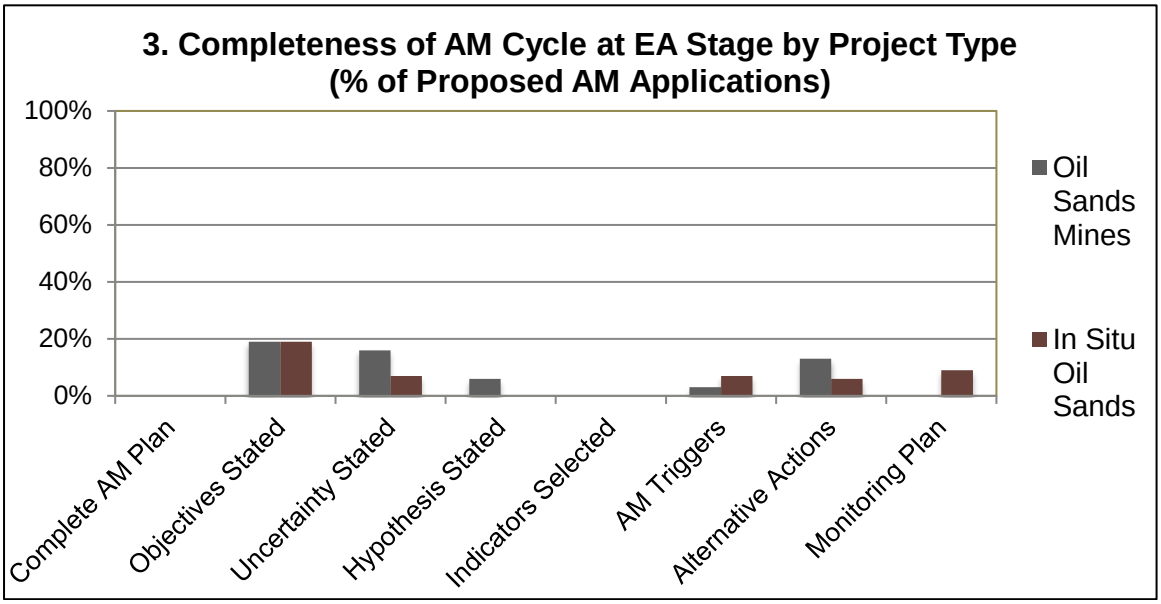
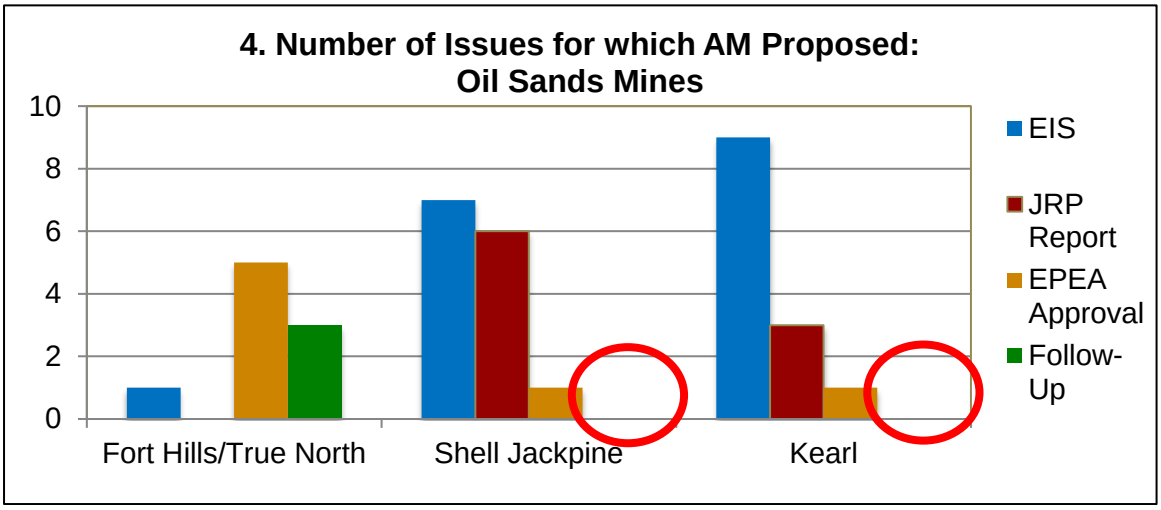


Figure 4 (below) confirms that there is often a yawning gap between the number and type of issues for which proponents propose adaptive management and what is ultimately required per the terms of their regulatory approval (Shell's Jackpine and Imperial's Kearl). At the reporting stage, implementation is either non-existent (Jackpine and Kearl) or barely distinguishable from basic compliance monitoring (Fort Hills), which can be useful in its own right but is not adaptive management.



Like the concept of ecosystem services, space does not permit a full discussion of the issues surrounding adaptive management. I once again urge the Panel to exercise its mandate to have experts advise on this issue. Failing that, my recommendations are that any future federal EA regime must:

- include a legal definition of adaptive management, *e.g.* as "a planned and systematic process that enables the improvement of environmental management practices by learning about their outcomes, and includes the six step cycle of (i) problem identification, (ii) plan design, (iii) plan implementation, (iv) plan monitoring, (v) evaluation of

implementation, and (vi) adjustment based on monitoring results as per the plan and further repetition of the cycle as required";
- require discrete, enforceable and peer-reviewed adaptive management plans;
- set out the circumstances when reliance on adaptive management is permissible, bearig in mind that it is not a "fail-safe" process;
- include on the CEA Registry all adaptive management plans and monitoring results;

6) Public Involvement

Q2 - To what extent are current opportunities for public participation in federal EA processes adequate?

In my view, the current approach to determining participatory rights (*i.e.* the "directly affected" test) is unduly narrow. As recently noted by University of Calgary Professor Shaun Fluker, it has also been applied in an inconsistent manner.[22]

In addition to those *individuals* that are "directly affected" by a project, participatory rights should also be granted to *those groups* that would satisfy what is essentially a modified "public interest" standing test. To establish standing, these groups would have to demonstrate a genuine interest in the matter, and that their participation is a reasonable way of bringing forward information and perspectives that are relevant to the project. This is essentially the approach taken by the New Prosperity mine panel.[23] In addition, provisions should be included for streamlining public participations where there is overlap between their issues and concerns.

7) Coordination

It is my understanding that University of Calgary Professor Emeritus Arlene Kwasniak will be making detailed submissions to the Panel with respect to coordination, substitution, and duplication, and I am inclined to defer to her on these topics. Below, I merely recommend a study that the Panel should commission in order to have some basis for an opinion about the effectiveness of substitution and equivalency, and reiterate my recommendation with respect to mechanisms for recognizing and integrating Indigenous legal orders.

Q1 - To what extent can the Government of Canada coordinate with other jurisdictions (e.g. provincial and/or Indigenous governments) while maintaining process integrity in the conduct of federal EAs?

See answer to Q2 below.

Q2 - To what extent is the current approach to substitution and equivalency effective?

A comparative study should be conducted, comparing Agency environmental assessments with substituted/equivalent environmental assessments. One way to do so would be to pick a random sample of each, have them "blinded" (remove any information that identifies the authoring jurisdiction), assess them for their rigour, comprehensiveness (with a view towards federal areas

[22] Shaun Fluker and Nitin Kumar Srivastava, "An Empirical Study into Public Participation under *CEAA 2012*" 29 J. Env. L. & Prac. 65.
[23] See Martin Olszynski, "New Prosperity Mine Panel Report: A "Liberal and Generous," "Complex," and Rigorous Interpretation of CEAA 2012" (8 November 2013) ABlawg: http://ablawg.ca/2013/11/08/new-prosperity-mine-panel-report-a-liberal-and-generous-complex-and-rigorous-interpretation-of-ceaa-2012/

of jurisdiction especially), degree of public participation, etc., and then see whether there is any correlation between these assessments and which jurisdiction authored the reports. Should time permit, it would be equally useful to carry out the same kind of comparative analysis between Agency environmental assessments and those conducted by the other responsible authorities (the NEB and the CNSC).

Q3 - Do you think duplication between the federal EA process and the EA process of other jurisdictions exists? If yes, what are ways in which duplication could most effectively be reduced while maintaining process integrity?

I do not have a specific comment with respect to this question.

Q4 - How can Indigenous Peoples' inherent jurisdiction best be reflected and respected in the federal EA process?

As I noted above, a future federal environmental assessment process should include mechanisms for recognizing and integrating Indigenous regimes for resource management.

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PART II: ADDITIONAL CONSIDERATIONS AND SUMMARY OF RECOMMENDATIONS

A. Reconsidering the Procedural Nature of EA Law

When considering Canada's future EA regime, it is useful to keep several realities and principles in mind. The first is to recall that it was not so long ago that governments had no formal processes for assessing the environmental effects of projects or their decisions. The first such law was the United States' *National Environmental Policy Act* (1969), the first of five American environmental laws passed in that country's "environmental decade". It was not until 1992 that Parliament introduced Canada's own EA law in the form of the first *CEAA*. Around that time, the Supreme Court of Canada's decision in *Friends of the Oldman River Society v. Canada* (1992) described EA regimes as intended "to *ensure* that [departments] took account of environmental concerns in taking decisions that could have an environmental impact."[24]

This is a fundamental point. Notwithstanding the Supreme Court's subsequent endorsement of EA as "as an integral component of sound decision-making," over two decades of *CEAA* caselaw (and four decades for *NEPA*) demonstrates that EA continues to be something that governments – of all persuasions – resist. After all, the identification and disclosure of the environmental effects of development can constrain short-term economic – and political – interests. The Newfoundland and Labrador Court of Appeal made a similar observation in the early days of the *CEAA, 1992* regime:

> [11] … One must also be alert to the fact that governments themselves, even strongly pro-environment ones, are subject to many countervailing social and economic forces, sometimes legitimate and sometimes not. Their agendas are often influenced by non-environmental considerations.
>
> [12] The legislation, if it is to do its job, must therefore be applied in a manner that will counteract the ability of immediate collective economic and social forces to set

[24] *Friends of the Oldman River Society v. Canada (Minister of Transport),* [1992] 1 S.C.R. 3.

> their own environmental agendas. It must be regarded as something more than a mere statement of lofty intent. It must be a blueprint for protective action.[25]

Such an approach may seem burdensome, or even anti-democratic, but it is actually rooted in the same basic principles animating the separation of powers and other widely valued constitutional norms. As noted by American law professor Richard Lazarus: "…the existing structure of our government is riddled with efforts to anticipate the dangers of unchecked democracy because of concerns about human nature and its potential interference with our nation's aspirations for a just society…"[26] In addition to features like bicameralism (*i.e.* having two legislative chambers rather than one), modern constitutions include "limitations on democratic lawmaking designed to guard against perceived human tendencies to rush to judgement against the criminally accused, to silence unpopular speech, to disrespect minatory religions…"[27] etc. The same basic dynamic is at play in environmental law, which attempts to constrain various human tendencies, including the disproportionate discounting of distant and/or future environmental harms.[28]

The questions, then, are whether Canadian environmental law, and EA law in particular, is doing an adequate job and whether it can be expected to do so going forward. With respect to the former, definitive answers are not possible because of the lack of reliable monitoring data at the national level but what evidence there is does suggest a continuing trend of environmental degradation.[29]

With respect to the latter, I begin with the observation that, at their core, most current Canadian environmental laws basically just set out decision-making processes, with EA laws (including both *CEAA*s) being paradigm examples: they require the identification and disclosure of adverse environmental effects, which can sometimes be significant, without imposing any clear substantive limits on decision-making; such effects must merely be deemed "justified in the circumstances."[30] In this way, *CEAA* is essentially like *NEPA*, which the U.S. Supreme Court described as "prohibi[ting] uninformed – *rather than unwise* – agency action."[31] The critical assumption behind such regimes is that disclosure enables political accountability, which in turn should "compel" government agencies and departments to "curb their most environmentally destructive practices."[32]

The fundamental question facing the Panel is whether this assumption of political accountability is a still a reasonable one (if it ever was) and, if not, how it might be supplemented. On this point,

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[25] *Labrador Inuit Association v. Newfoundland (Minister of Environment and Labour)* (1997), 1997 CanLII 14612 (NL CA), 152 D.L.R. (4th) 50 (N.L.C.A.) at paras. 11-12.
[26] Richard Lazarus, "Environmental Law After Katrina: Reforming Environmental Law by Reforming Environmental Lawmaking" 81 Tul. L. Rev. 1019-1058 (2007).
[27] Ibid at 1047.
[28] Ibid at 1035.
[29] The World Wildlife Fund Canada (WWF-Canada) recently launched an innovative online tool, Watershed Reports (http://watershedreports.wwf.ca/), which allows users to access the assessed health of, and threats to, their watersheds and sub-watersheds (the project is 50% complete, with a final completion date in 2017). See also Favaro B, Claar DC, Fox CH, Freshwater C, Holden JJ, Roberts A, et al. (2014) Trends in Extinction Risk for Imperiled Species in Canada. PLoS ONE 9(11): e113118. doi:10.1371/journal.pone.0113118
[30] Martin Olszynski, "Environmental Assessment as Planning and Disclosure Tool: *Greenpeace Canada v. Canada (Attorney General)*" 38(1) Dal. L. J. 207 at 224.
[31] *Robertson v Methow Valley Citizens Council,* 490 US 332 (9th Cir 1989) [emphasis added].
[32] Bradley C Karkkainen, "Toward a Smarter NEPA: Monitoring and Managing Government's Environmental Performance" (2002) 102:4 Colum L Rev 903 at 912.

it is important to recall that the environmental-law-as-process paradigm arose in the 1970s – an era of heightened environmental awareness. While environmental concerns are still prevalent, especially with respect to climate change, they compete with other equally pressing concerns, including equality, disparity, national security, and the economy. There has also been a surge of available information following the advent of the internet. While access to this information is critical and has enabled broad public debate about some of Canada's largest industrial projects (*e.g.* pipelines), the amount of potentially relevant information can quickly become overwhelming. In other words, while the case for political accountability was probably always tenuous, it is even more so now, especially for the vast majority of projects, programs, and policies that do not attract media or public scrutiny.

In my view, all of this suggests that Canada's next EA law requires that at least some *substantive* standards be built into it. Professors Gibson, Doelle and Sinclair have suggested sustainability assessment. I think that their proposal merits serious consideration. Regional EAs that set ambient thresholds for such things as air and water quality are another way of introducing substantive standards into the EA regime. At the very least, rather than focusing on merely avoiding significant adverse environmental effects, proponents should be required to avoid or minimize *all* adverse environmental effects to the extent possible (*e.g.* a BAT standard).

B. Summary of Recommendations

Based on the foregoing, my primary recommendations can be summarized as follows:

- Recommit to the goal of sustainable development, by requiring;
    - More transparency in the EA process, including the provision of reasons following important process steps and how those decisions further the goals of the legislation;
    - More formal analysis of the economic and social impacts of a given project – the Lower Churchill JRP Report provides a good example;
    - Strategic EA;
    - Minimization of all adverse environmental effects through best practices and/or BAT;
- Reduce the discretionary nature of the EA process to the maximum extent possible;
    - Incorporate objective criteria for the scope of factors to be considered and the rigour of consideration;
- Re-orient the CEA Registry into an environmental assessment *and project* review registry:
    - Include all post EA decision-statements, authorizations, permits, as well as proponent follow-up reports and monitoring data;
- Create an independent office or ombudsman to oversee the EA process in a timely and objective manner;
- Integrate Canada's national and international commitments in the legislation;
- Include mechanisms to coordinate federal reviews with reviews carried out according to re-emerging Indigenous legal orders;
- Make Indigenous traditional knowledge mandatory where it has been gathered and made available;
- Commit to regional environmental assessment as a general rule but especially for areas:
    - Under significant development pressure; and
    - Of significant ecological value;
- Amend the Scope of Factors:
    - Reinstate the consideration of the "need for a project" and project "alternatives";
    - Add (a) climate change and (b) impacts on ecosystem services;

    - Clarify the required rigour of consideration, *e.g.* comprehensive (an objective standard);
- Centralize EA within the CEA Agency for all major projects;
- Include provisions to ensure an independent, arm's length relationship between environmental consultants and the proponents for whom they are working;
- With respect to adaptive management, include provisions:
    - Defining adaptive management;
    - Requiring discrete, enforceable and peer-reviewed adaptive management plans;
    - Setting out the circumstances when reliance on adaptive management is permissible;
    - Requiring all adaptive management plans and results to be posted on the CEA Registry

In addition, I strongly urge the Panel to exercise its mandate to seek further expert advice in relation to the following issues:

- The integration of ecosystem services assessment;
- The relationship between proponents and the environmental consulting industry;
- The differences, if any, between substituted provincial EAs and Agency EAs, as well as NEB and CNSC EAs;
- The proper role for adaptive management;

Thank you for your time in considering this submission. Please do not hesitate to contact me should you require anything further.

Best regards,

Martin Z. Olszynski