

1 December 2016

Honourable Catherine McKenna, P.C.
Minister of Environment and Climate Change
200 Sacre-Coeur, 2nd Floor
Gatineau, Quebec, K1A 0h3
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Dear Minister McKenna,

We submit our recommendations for **improving environmental assessment** across Canada. Our current environmental assessment regime is weak and flawed, and we are grateful that our federal government has engaged in a process to review and fix it. It matters for the health of our country including our economy now and for the future.

We will first make global comments on how we would like to see environmental assessment strengthened in Canada. We then apply these comments to a case study: the approval of the Site C dam in British Columbia.

Global Comments

The revised *Canadian Environmental Assessment Act* should be strengthened to incorporate the following:

1. Incorporation of stronger science in developing environmental impact assessments (EIA). Specifically,
 - a. To ensure that impacts do not unduly affect future generations, the burden of proof on project proponents should be shifted *from* demonstrating that there will be an impact *to* proof that there will not be an impact and more fulsomely addressing potential impacts and not acting when risks are high, thereby only moving when we are sure that there will not be long-term impacts.
 - b. EIA for a project cannot be done without consideration of cumulative impacts in the rest of the environment. The revision should incorporate much clearer and stronger language to ensure proper consideration of cumulative impacts, including clear thresholds for all valued ecosystem components.
 - c. Data which form the basis for EIAs should be shared freely, which is now the world standard to ensure transparency and quality of science.



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- d. Increased science standards for baseline condition assessment and remediation and restoration is needed.
 - e. Accurate assessment of the long-term impacts of the project as the current guidelines allow for underestimation of lasting impacts.
 - f. Incorporation of the impacts of a changing climate to ensure that Canada meets its climate goals. For Environmental Assessments to address climate change, it needs to incorporate mechanisms to explicitly consider current and future climate change such as through cumulative impacts assessments.
2. Sustainability as a core objective, to ensure the long-term health of the environment and communities. The development of clearly defined sustainability-based should consider a net contribution to environmental, social, cultural and economic well-being in the short and long-term.
 3. Meaningful public participation for anyone who wishes to participate and should ensure indigenous peoples' consultation, engagement, and participation. This should engage collaborative decision-making with Indigenous nations, based on nation-to-nation relationships and the obligation to secure free, prior and informed consent.

Overall, the revised law, should strengthen rules and criteria to encourage transparency, accountability and credibility, and to avoid politicized decisions.

Case Study: Site C Dam

As you are aware, the Site C dam in British Columbia is the source of much controversy and conflict, and is being challenged by two First Nations at the federal Court of Appeal. An analysis released by independent scholars hosted by the Program on Water Governance at the University of British Columbia highlights that “the number and scope of adverse environmental impacts arising from the Site C project are unprecedented in the history of environmental assessment in Canada.”¹ This extremely unfortunate situation could have been avoided had a stronger environmental assessment regime been in place in 2011, when the environmental assessment of Site C was initiated. Specific to our points made above:

1. The need for stronger science:
 - a. Burden of proof: Were the burden of proof shifted to be more in line with the Precautionary Principle, it is hard to

¹ <https://sitecstatement.files.wordpress.com/2016/01/briefing-note-2-site-c-environmental-effects1.pdf>

envision that Site C, with 21 adverse environmental impacts, including eight related to Aboriginal use and cultural heritage, could ever have been approved. This points to an imbalance in the level of scrutiny of economic arguments, including the acknowledged uncertainty of the need for Site C's power, against the level of scrutiny of environmental impacts.

- b. Cumulative impacts: Another analysis that focused on wildlife impacts of Site C, written by Dr. Clayton Apps, looked at the impacts of past, present, and projected future human influence, including the Site C dam and its 83-kilometre long reservoir, on caribou, grizzly bear, gray wolf, lynx, wolverine, and fisher in the Peace region. Dr. Apps concluded that "The Site C dam would negatively affect six mammal species that already are experiencing significant habitat impacts from industrial development and the W.A.C. Bennett dam" and that "The cumulative effects of development in the Peace region, including the proposed Site C dam, are so significant that some wildlife populations may not be viable or recoverable in the future." These impacts are largely due to the loss of landscape connectivity resulting from Site C, which threatens the integrity of the entire Yellowstone to Yukon corridor. Additionally, the legal arguments made by the West Moberly and Prophet River First Nations at the federal Court of Appeal are in context of the cumulative impacts from industrial and resource development on their treaty rights. Finally, the UNESCO World Heritage Committee's reactive monitoring mission to Wood Buffalo National Park this fall can also be seen as a cumulative impacts issue, since it resulted from the Mikisew Cree's contention that insufficient attention has been paid to the potential downstream impacts of Site on the Peace-Athabasca Delta.
- c. Data transparency: Hundreds of scientists have questioned the approach of leaving data analysis and modelling of environmental impacts to project proponents, calling instead for this work to be done by arms-length parties. The potential impacts of Site C on the Peace-Athabasca Delta is an example of this, where the review panel had to rely mainly on assurances regarding flow regimes from consultants hired by BC Hydro.
- d. Better baseline science: In June 2015 the Biological Survey of Canada, supported by our organization and the Royal BC Museum, conducted a Bioblitz on the Peace River. Participating scientists found several species not

included in BC Hydro's submission to the environmental assessment of Site C, including spider and true bug species never before catalogued in Canada, and bumblebee and snail species vulnerable to extinction. The president of the Biological Survey called these findings "the tip of the iceberg" due to the Peace being "poorly known biologically." In 2016 the Royal BC Museum launched its PEACE Project due to the region's biological and cultural uniqueness.

- e. Long-term impacts: The above-mentioned wildlife studies and lack of fulsome analysis of the downstream impacts of Site C on the Peace-Athabasca delta are examples of the insufficient weighting of long-term impacts in Site C's environmental assessment. The long-term impact of the anticipated loss to inundation of thousands of First Nations cultural sites has been called "cultural genocide" by Chief Roland Willson of the West Moberly First Nation. For the Mikisew Cree, the Peace-Athabasca Delta, "*Ayapaskaw* in Cree, is everything. The PAD is what sustains our way of life. It is who we are."
 - f. Climate change: The same academic consortium referenced above found that the difference between Site C's GHG emissions and the Alternative Portfolio put forward by BC Hydro would be, at most, 1% of BC's current emissions. During environmental assessment the federal and BC governments stated that the unprecedented number of adverse environmental effects from Site C were justifiable in part because Site C would deliver energy at substantially lower GHG emissions than the available alternatives, but the analysis indicates this is not the case. In September 2016 a major study published in *BioScience* confirms that reservoirs may be emitting up to 1.3 of global emissions, in the form of methane, a far worse GHG than CO₂. The timing of Site C emissions is also germane, as they are concentrated in the years of construction and early inundation.
2. Sustainability as a core objective: Many issues related to Site C's impacts on short and long-term environmental, social, cultural and economic well-being have been raised. These include the long-term impacts of the loss of 31,528 acres of Class 1-7 agricultural land, which agrologists estimate could feed one million people. This is the largest withdrawal from the Agricultural Land Reserve in BC's history, and is especially critical given the droughts being experienced in US food producing areas. Economic issues include steep rises in electricity rates that will disproportionately impact lower-income

families. Taxpayers and ratepayers will not only face inflated bills at home, but if they are homeowners they could also face increased taxes to pay for the operation of local and regional facilities and utilities. Harry Swain, the chair of the environmental assessment panel, estimates ratepayers will be left with a stranded debt of \$7.2 billion due to the high unit costs of Site C's power. The long-term cultural impacts on First Nations have been discussed above.

3. Consultation and engagement: The United Nations Declaration on the Rights of Indigenous Persons codifies what has already been recognized by Canadian courts, most recently in *Tsilhqot'in Nation vs. BC*. The Treaty 8 chiefs challenging Site C in court have been clear that they do not consent to Site C.

Conclusion

We are thrilled that Canada's Environment Assessment processes are being reviewed. We strongly hope that you will incorporate use of stronger science, sustainability as a core objective, and meaningful public participation as we detail above. The future of Canada's environmental, social, cultural and economic well-being hinges on ensuring that this tool works. We look forward to presenting our input to the panel on December 12, and are happy to discuss at any time.

Sincerely,



Jodi Hilty, Ph.D.
President and Chief Scientist



Candace Batycki
Program Director, BC & Yukon

cc. The Honourable Dr. Kirsty Duncan, P.C., Minister of Science
cc. Expert Panel, Review of Environmental Assessment Processes
cc. Members of the Standing Committee on the Environment and Sustainable Development