

Better rules need better science: Submission to the Standing Committee on Environment and Sustainable Development regarding the role of science in impact assessment

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April 6, 2018

EXECUTIVE SUMMARY

- For 40+ years, leading science and policy experts have identified weaknesses and suggested changes to strengthen Canadian environmental assessment (EA) practice, policy, and law.
- There is broad, cross-sectoral public support for stronger science in EA, as demonstrated by public polls and public consultation to the Expert Panel Review process.
- The proposed *Impact Assessment Act* in Bill C-69 retains serious weaknesses. It is critical that strong science be incorporated in both the proposed Act and associated regulation and guidance documents. We include recommended changes, organized by section.
- Numerous experts within Canada's scientific community have repeatedly offered to help lawmakers and public servants strengthen science in EA, to ensure that decisions can be based on facts, evidence, and be made in the public interest.

BACKGROUND OF THE AUTHORS

Lead author: Dr. Aerin L. Jacob, Conservation Scientist and Liber Ero Fellow, Yellowstone to Yukon Conservation Initiative, aerin@y2y.net. Dr. Jacob has worked on environmental assessment for more than ten years as both a consultant and a researcher. She is a member of the RCEN Planning and Environmental Assessment Caucus and has led the engagement of Canada's scientific community on the federal review of environmental assessment and regulatory processes, including 1) an open letter from nearly 2000 researchers in Canada, 2) submissions and presentations to the Expert Panel, 3) a technical report responding to the Discussion Paper, and 4) peer-reviewed research about the role of science in federal environmental assessment.

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SCIENCE IN THE PROPOSED *IMPACT ASSESSMENT ACT*

The proposed *Impact Assessment Act* (IAA) in Bill C-69 aims to replace Canada's existing federal environmental assessment (EA) law (the *Canadian Environmental Assessment Act 2012 [CEAA 2012]*). Although there are some significant improvements, there are clear opportunities to strengthen the proposed IAA during committee stage. Given page and time restrictions, we focus our comments on science in the proposed IAA and related regulation and guidance documents.

We commend the Government for the preamble to the proposed IAA, which has admirable aspirations and intentions. We appreciate that the proposed IAA expands the factors to be considered when making decisions, including cumulative effects, Indigenous and traditional knowledge, contribution to sustainability, ability to meet climate change commitments, community knowledge, other regional studies, and gender-based analysis (S.22(1)). An important proposed change is to assess projects based on their contribution to sustainability (which is nebulously defined in the text, though a topic of considerable expert research).¹

While the proposed IAA is an improvement upon CEAA 2012, it does not adequately address concerns about science in EA that have been highlighted repeatedly by experts across Canada (including scientists, lawyers, policy analysts, and thousands of signatories in these fields)² as well as the Expert Panel Review of Environmental Assessment Processes.³

Although a document accompanying the proposed IAA states “*Science and evidence provided by companies would be rigorously reviewed by federal scientists. Independent reviews would be done where there is strong public concern or results of a study are uncertain. We would increase online access to science and evidence, including data on follow-up, monitoring, compliance, and enforcement*”,⁴ the elements are not included or alluded to in the text of the proposed Act. Science or scientific information is rarely mentioned (e.g., re: the proposed public registry, preamble, and purpose) and the Act does not contain provisions for science or related definitions. We recognize that some provisions related to science will emerge in regulations and associated guidance documents. However, if the government seeks a robust law which will be “future-proofed” and retain its purposes as stated, explicit principles for strong science need to be in legislation.

¹ For instance, White and Noble (2013) Strategic environmental assessment for sustainability: A review of a decade of academic research. *Environmental Impact Assessment Review*, 42: 60-66. <https://doi.org/10.1016/j.eiar.2012.10.003>; Gibson et al. (2016) Fulfilling the promise: Basic components of next generation environmental assessment. *Journal of Environmental Law and Practice*. 27 : 251-276. Gibson et al. (2005) Sustainability assessment: Criteria and processes. London, Earthscan, 254 p; Gibson (editor), (2017) Sustainability assessment: Applications and opportunities. London: Routledge/Earthscan, 264 p.

² Westwood et al. “Strong foundations: Recap and recommendations from scientists regarding the federal environmental and regulatory reviews” (2017) <http://www.y2y.net/strongfoundations>; Jacob et al. “Cross-sectoral input for the potential role of science in Canada’s environmental assessment” (Accepted) FACETS, DOI: 10.1139/facets-2017-0104; Gibson et al. “Fulfilling the Promise: Basic Components of Next Generation Environmental Assessment” (2016) *J Environ Law Pract* 257; Olyszynski et al. “Rebuilding public trust in Canada’s environmental assessment and regulatory processes: Recommendations and model legislation”, Submission to Canada’s Environmental and Regulatory Reviews Discussion Paper, (2017); Lassonde “Letter from the Royal Society of Canada regarding Site C dam project” (2016), <https://rsc-src.ca/en/about-us/our-people/our-priorities/over-200-leading-scholars-call-government-to-suspend-site-c-dam>; Schindler & +370 co-signatories, “Statement of Concerned Scholars on the Site C dam project, Peace River, British Columbia” (2016) <https://sitecstatement.org>; Schindler & +624 co-signatories, “Open letter re. Potential amendments to section 35 of the Fisheries Act.”, (2012), www.sfu.ca/~amooers/scientists4species/FA_letter_2012.pdf; Chan et al., “Open letter on the Joint Review Panel report regarding the Northern Gateway Project”, (2014), http://chanslab.ires.ubc.ca/files/2014/05/JRP-Letter-to-Federal-Govt_May28_all-signaturesKCASET.pdf; Moore & + 130 co-signatories, “Scientific flaws in assessment of environmental risks from the proposed Pacific NorthWest Liquefied Natural Gas facility at Lelu Island, Skeena River estuary”, (2016), <https://www.watershed-watch.org/wordpress/wp-content/uploads/2016/03/Letter-ScientificFlaws-PNWLNG.pdf>; Jacob et al., “Young researchers’ open letter to Prime Minister Trudeau”, (2016), <https://www.youngresearchersopenletter.org>.

³ Expert Panel for the Review of Environmental Assessment Processes, *Building Common Ground: A New Vision for Impact Assessment in Canada*. Canadian Environmental Assessment Agency, Ottawa. 2018.

⁴ www.canada.ca/content/dam/themes/environment/conservation/environmental-reviews/infographic-canadians-e.png

A BROAD PUBLIC MANDATE TO STRENGTHEN SCIENCE IN EA LEGISLATION

It is not only scientific and legal experts who see the need for improved science in the IAA. The Canadian public also broadly supports stronger science, giving the government a mandate to implement such changes. *We assessed all 500+ written submissions to the Expert Panel in a peer-reviewed research paper (Jacob et al. Accepted)⁵ and found that 1) not only did the vast majority of submissions (87%) mention one or more of five components of strong science (open science, cumulative effects, transparent decision-making, greater scientific rigour, and independence), but 2) over 90% were in favour of strengthening that component.* Although support for stronger science was highest among Indigenous groups, NGOs, and individuals/academics, industry groups and government bodies and agencies also supported some aspects of stronger science: while they supported open science, cumulative effects, and transparent decision-making, much less support was shown for greater scientific rigour or independence.

Public polls have shown low confidence in the Government's ability to make resource and environment-related decisions. A 2017 national poll showed that Canadians want to see stronger science in EA processes, as the most common response about how to improve the federal EA process was to base “*decisions on science, facts, and evidence*” (31%, n=189), ahead of even public participation. Few respondents (33%) felt that science was working well in existing processes.⁶ In 2017, a government-led questionnaire asked the public to rank eight elements related to environmental regulatory decisions: the top-ranked element (74%) was “*Science, facts and evidence have been used to support decisions*”.⁷ Only 25% of respondents chose “*economic benefits/impacts have been considered*” as one of their three top-ranked elements. And 8/10 Canadians felt there needed to be better management of cumulative effects. Polls also show strong support for considering cumulative effects more strongly,⁸ particularly with regard to climate.⁹

AMENDMENTS TO THE TEXT OF THE PROPOSED IAA

Earlier this year, we led a comparison of the proposed IAA related to recommendations by the scientific community – we found the draft law lacking in a number of key areas.¹⁰ Below in **bold** we list sections of Bill C-69 *PART 1 Impact Assessment Act, Enactment* with a brief description of why it is problematic, followed by recommended amendments in ***bold italics***. In square brackets and **[bold square brackets]** we list which of five key principles of a scientifically sound approach to EA is most relevant (e.g., open science, see Jacob et al. (Accepted) for details).

⁵ Jacob et al. (Accepted) Cross-sectoral input for the potential role of science in Canada's environmental assessment. FACETS. DOI: 10.1139/facets-2017-0104. Contact aerin@y2y.net for a copy of the manuscript.

⁶ Nanos, *Canadians more negative than positive about energy decision-making* (Univ. Ottawa Positive Energy Summit, 2017).

⁷ Nielsen Delaney + Associates & Publivate, *Review of Canada's environmental and regulatory processes: Questionnaire report (Final Draft)*. Prepared for the Government of Canada, 2017.

⁸ Nanos, *supra* note.

⁹ Nielsen Delaney + Associates & Publivate, *supra* note.

¹⁰ <http://www.y2y.net/strongfoundations>

S.6: There are no provisions for a duty of scientific integrity on all parties. While this could be further elaborated through regulation and guidance documents, it must be included in legislation.

- **Recommendation:** Add section 6(3): “All persons involved in the carrying out of any part of an impact assessment must adhere to the principles of scientific integrity, carrying out their scientific activities honestly, objectively, thoroughly, accurately, and in a timely manner.” [**Scientific rigour, independence**]

S.6(1)(h): Scientific information comes in many forms and could be interpreted in many ways.

- **Recommended amendment:** "to ensure that an impact assessment takes into account the best available rigorous scientific information, traditional knowledge of the Indigenous peoples of Canada and community knowledge;" [**Scientific rigour**]
- **Recommendation:** In the Definitions section, 'best available rigorous scientific information' should be defined. If the suggested amendment is not made, 'scientific information' should be defined instead. [**Scientific rigour**]

S.6(1)(m): Encouragement of cumulative effects is insufficient, and for evidence to be appropriately contextualized for decision-making cumulative effects must be known. Thus, their evaluation and consideration must be part of every project.

- **Recommended amendment:** "to provide for the assessment of the cumulative effects..." [**Cumulative effects**]

S.6(1)(n): Encouragement of follow-up programs is insufficient, as it is essential that data be collected on every project to understand impacts (anticipated or otherwise), and to be available for adaptive management.

- **Recommended amendment:** "to mandate improvements to impact assessments through the use of follow-up programs." [**Scientific rigour**]

S.6(2): In respect of the "Mandate" provision pursuant to this section, explicit references need to be made to decision-making factors to improve coherence and consistency across the impact assessment process and ensure that this mandate is actually respected at key junctures.

- **Recommendation:** Amended to explicitly cross-reference the consideration of factors pursuant to S.22(1), determining the scope of factors to be considered pursuant to S.22(2), and the provisions related to decision-making (S.60 and 63). [**Transparency**]

S.10: Details are not given for the type or duration of public involvement, nor access to scientific and technical information related to the proposed project (e.g., raw data, model parameters, reproducible statistical code). Clarification is needed to ensure that information is provided with sufficient detail and time for the public and experts to provide informed comments, as well as made permanently and publicly available to enable learning over the long-term. [**Open science**]

S.19(1): It is unclear if this starts during or after the planning phase, and whether the entire period is to be used or if this is a maximum. Proponents tend to anticipate and begin necessary studies long before submitting an initial filing, using a combination of government administrative and monitoring data, publically available scientific information, and commissioning local field studies (information which is often not available to others, even on public land, in data-poor areas, or on species of conservation concern). An EIS is usually prepared in less than three years.

- **Recommendation:** Explicitly specify when information gathering phase is to start, preferably during the early assessment and planning phase. [**Scientific rigour**]

S.22(1): As written, there is no indication to the degree of consideration which must be given to the factors for decision-making. We urge a qualifier such as the one suggested, and that principles of scientific integrity be upheld when assessing based on this qualifier.

- **Recommendation:** "The impact assessment of a designated project must be based on robust consideration to the following factors:" [**Transparency; scientific rigour**]

S. 22(1)(b): The original CEAA, CEAA, 2012 and the proposed IAA all define mitigation measures roughly the same way, as measures "to eliminate, reduce, control or offset the adverse effects of a project or designated project" (S2). In the past, panels have deemed that potential future technologies/methods fit this requirements, even without evidence supporting their potential existence, much less effectiveness. We recommend explicit evidentiary support be required for currently-existing technologies/methods before they can be recommended as effective mitigation measures. This is an additional reason why follow-up and monitoring information and methods must be rigorous and freely and publically available.

- **Recommended amendment:** "mitigation measures that are technically and economically feasible and demonstrably effective at present, or their effectiveness be reasonably certain based on the best available scientific evidence, and that would mitigate any adverse effects of the designated project" [**Scientific rigour; transparency**]

S.28(3): The relevant requirements for reporting cover only likely effects of the proposed project as defined in S.51(1)(d). There is no mention of reporting on public comments, or presenting conclusions or recommendations or rationales, or any other matters suggesting analysis of the overall merits and deficiencies of the proposed project in light of alternatives, the decision factors, or criteria defining the public. All relevant information to the decision-making regarding whether a project is in the public interest should be included in state.

- **Recommendation:** Append and amend this section to include reporting on: Alternatives identified under s.22(e) and (f), recognizing adverse effects and net contributions to sustainability; assessment of the implications of potential effects on Indigenous groups and rights; assessment of the implications of prospects for hindering or contributing to meeting environmental and climate change commitments; and overall assessment of (net)

contributions to sustainability, including the justifiability. Ensure that an Agency assessment report contains identical content expectations for review panel assessments, including a summary of public comments, and rationales for decision-making. [**Scientific rigour; transparency**]

S.33(2)(f): The term “meaningful participation” is unclear and does not suggest that information will be provided in a way that is scientifically usable. Full access to data is necessary to allow for independence verification, and for other jurisdictions to effectively estimate cumulative effects.

- **Recommendation:** Define 'meaningful public participation' in the Act definitions (S2) to include access to all scientific and technical materials in full, including data, preliminary reports, and any other necessary materials. [**Open information, scientific rigour**]

S. 44(3) and S.47(3): Text is identical in these sections. When taken in conjunction with the remainder of Bill C-69, which stipulates that at least one member of the energy regulators must be on the panel, in addition with the requirements from IAA, there is the potential for 2/3 of the panel to be representing industry or regulator. While recognizing the need for the expertise of the regulator in the assessment process, to promote independence and also represent a breadth of expertise, the number of panel members should be adjusted.

- **Recommended amendment:** "At least one, but no more than one, of the persons appointed under paragraph (1) must be appointed from a roster established under paragraph 50(b)..." [**Independence**]

S.50: Panelists come from a standing roster, but they may not have the relevant expertise in a project or region-specific situation. It needs to be possible to make adjustments to the roster (sometimes on short notice) to make sure that the most qualified persons for a particular assessment are available.

- **Recommended amendment:** Add S.50(1): "*The roster of persons established under 50 (a), (b), or (c), may be amended at any time to accommodate new or additional personnel with relevant expertise.*" [**Independence**]

S.51(1)(iv): The requirements for panel reports make no explicit reference to addressing the S.22 considerations, or to reporting or recommending on the S.63 factors for decision making, including “the extent to which the designated project contributes to sustainability,” or impacts Indigenous groups or rights, or hinders or contributes to meeting Canada’s environmental and climate change commitments. For rationale to be clear, all of these elements must be reported on.

- **Recommended amendment:** "sets out the review panel’s rationale for decision-making including consideration of factors under S.22 and S.63, conclusions and recommendations, including conclusions and recommendations with respect to project contribution to sustainability, public interest determination, and any mitigation measures and follow-up program;" [**Transparency**]

S.60-65: Although the S.60-65 requirements for decision making may be taken to imply that the decisions are to be based on consideration of the five factors in S.63, as would be consistent with stated purposes of the law (S.6), the proposed Act does not directly and consistently state this. The Act's provisions for decisions in light of legislated factors apply only to the assessment of designated projects. No equivalent is provided for assessments of strategic and regional undertakings. If strategic and regional assessments are to deliver authoritative results, the provisions in S.60-65 will have to be extended to decision making on strategic and regional undertakings, as well as projects.

- **Recommendation:** Amend and append to the project assessment decision making provisions in S.60-65 to extend application to decision making on strategic and regional undertakings, or provide the equivalent provisions separately for strategic and regional assessments. [**Cumulative effects; Transparency**]

S.60(1): Perhaps a drafting error which implies that adverse effects are in the public interest.

- **Recommendation:** Repair by replacing “if the adverse effects within federal jurisdiction ... are ... in the public interest” with “whether proceeding with the project, given its adverse effects ... and its overall effects on sustainability, is in the public interest.”

S.63: As written, there is no indication to the degree of consideration which must be given to the factors for decision-making. We urge a qualifier (below) and that principles of scientific integrity be upheld during assessment based on this qualifier (see our suggestion S.6(3)). In addition, as written, it is unclear if other factors not specified can be considered, and to what degree. This is particularly evident in the French translation which uses the term "entre autres". There is also no explicit tie to the factors in S.22 that, while implied, should be made explicit.

- **Recommended amendment:** *"The Minister's determination [...], be based on robust consideration to the following factors and related matters set out in S.22"*
[**Transparency, scientific rigour**]

S.63(1)(b): Without categorizing adverse effects, it is difficult for the public and scientific community to understand and form their own opinion with regard to a given project. There are infinite ways in which “the extent to which adverse effects...are adverse” could be framed, some being relatively clear (e.g., major, moderate), with others being potentially quite opaque (e.g., somewhat adverse, fairly adverse). In addition to being opaque, the absence of any standardized categories could result in inconsistent approaches across assessment reports.

- **Recommendation:** The Definitions (S.2) of adverse effects should explicitly set out four categories of adverse effects: major, moderate, minor, and no effect. The Agency or a review panel would have to place adverse effects into one of these categories as part of its assessment, as would the Minister or the Governor in Council in making their own determinations. Such an approach can follow current Agency guidance on determining

significance for the purposes of CEAA, 2012, but these categories should be included at the statute level, not just in guidance. [**Scientific rigour; Transparency**]

S.81-91: This section proposes to continue a non-transparent self-assessment process by which federal authorities are required to consider the solely environmental (biophysical) effects of non-designated projects on federal lands or outside Canada, and whether any such effects are “justified in the circumstances” (S.83). No public information or opportunity to comment is required except for a posted notice of intent from the authority before it finalizes its determination (S.86(1)). The public is given a minimum of 15 days to become aware of the notice and respond before the authority makes and posts its determination (S.86(2)). While the posted determination is to identify any mitigation measures, there is no mention of providing background information, assessment findings or reasons for the determination. Effectively, this section provides a vehicle from shielding most federal projects from effective assessment and public scrutiny and engagement.

- **Recommendation:** This section should be removed, and federal projects subject to the same rigour of assessment as all projects. [**Scientific rigour; Transparency; Independence; Cumulative effects; Open information**]

S. 92-95: To ensure that regional and strategic undertakings are credible and applied appropriate, and that needs are met that may have important implications for sustainability, a number of amendments are needed to establish formal guidance to ensure interpretation is consistent with the intent of the Act.

- **Recommendation:** Amend and append relevant clauses in this section to: establish a formal designation process for strategic and regional undertakings; clarify that the scope of regional assessments in S.92 and S.93 includes identifying and comparing options for responding to the findings about regional cumulative effects and related concerns; provide explicitly in S.95 for strategic assessments concerning important sustainability-related issues not addressed by existing or anticipated federal strategic undertakings; provide for regulations to clarify how and by whom cumulative effects, broad alternatives and big policy issues are to be addressed in project level assessments in the absence of completed and up-to-date regional or strategic assessments. [**Cumulative effects; Transparency**]

S.102-103: Although this section requires regional or strategic assessment committees to report to the Minister, it does not provide for a response whereby the Minister can detail how that report was taken into consideration.

- **Recommendation:** Amend S.102 and S.103 to require the Minister and Governor in Council to formal and authoritative responses to regional and strategic assessment reports, with reasons in light of the S.63 factors. This includes: respond to the report of a regional or strategic assessment committee, specifying a decision on what actions are to

be taken in light of the report; specifying implications for proposed policies, plans and programs, for further strategic actions, and for project level assessments; establish that the actions may include new policy, plan or program initiatives, requirements or guidance for project level assessments based on the committee's report, and determination of the authority of the requirements or guidance in project level decision making; set out the reasons for the decision, based on the factors set out in S.63; and ensure that both the decision and the reasons for decision are posted on publicly.

S.104(1): This clause does not give any indication of what level of detail may be available. To meet open standards, all reports and data to be available to allow for verification, validation, and to inform other studies.

- **Recommended amendment:** "There is to be a permanent, free, and public registry called the Canadian Impact Assessment Registry, consisting of an Internet site and project files, including preliminary files and all raw data and analytical methods in an interoperable format." **[Open information]**

S.105(2)(d): This clause as written does not provide for fully complete and open information, which should be presumed unless confidentiality is provoked. This is also antithetical to the government's efforts elsewhere regarding open information and data, and out of sync with modern scientific practices.

- **Recommended amendment:** "All scientific information that the Agency receives from a proponent or federal authority, except where confidentiality has been invoked, including all data, interim reports, and final reports in full." **[Open information]**

S.105(4)(c): To fulfill standards of open data, records must be available in perpetuity. This is particularly true for best practices of follow-up and adaptive management.

- **Recommendation:** Remove this clause. **[Open information]**

S.106(1): This clause suggests project files can be removed after completed follow-up, or when impact assessment is terminated. To fulfill standards of open data, records must be available in perpetuity. This is particularly true for best practices of follow-up and adaptive management.

- **Recommended amendment:** "Subject to subsection (2), in respect of every designated project, a project file must be established by the Agency on the day on which the notice referred to in subsection 10(1) in respect of the designated project is posted on the Internet site and maintained in perpetuity."

S.107: The Act should make explicit that all scientific information submitted in the course of an impact assessment is presumptively public unless a request for confidentiality is made and granted pursuant to narrow terms. This section appears to create a presumption of confidentiality.

- **Recommendation:** Amend this section to clarify that that all project-related scientific information (e.g., baseline data, models, etc)¹¹ is public unless specified otherwise, while recognizing that it can be proprietary and subject to all of the rules of the Copyright Act without being confidential. **[Open information]**

S.109: This section details regulation-making powers. However, regulation-making powers lacking elements that are in the intent and text of the Act, such as sustainability and regional and strategic assessments. We recommend that existing powers be amended and new ones appended, as specified, to ensure that elements in the Act are not neglected.

- **Recommendation:** Append section, providing regulation-making powers to: establish an adjusted equivalent to the Project List for regional and strategic undertakings, and criteria for decision making on public requests for such assessments; specify the matters to be considered by regional and strategic assessments; clarify how cumulative effects, broad alternatives and big policy issues are to be addressed, including by government authorities where proponent capacities and authority are insufficient, in project level assessments in the absence of completed and up-to-date regional or strategic assessments; establish criteria and otherwise clarify how the contribution to sustainability and other considerations are to be addressed. **[Cumulative effects; Transparency]**

S.109(b): Project-level undertakings are nebulously defined, and require further elaboration before definitions can be practically useful. It is necessary to establish explicitly that the categories of projects that may be designated under S.109(b) or S.9, and required to be assessed under S.16. This must be done with consideration to cumulative effects and sustainability to fulfill intent of the Act.

- **Recommendation:** Amend or append to ensure the following: include in the Project List categories of projects by federal authorities, on federal lands, with federal funding or requiring federal funding, where these projects may, individually or cumulatively, have substantial effects on prospects for progress towards sustainability; include in the Project List categories of projects that may, individually or cumulatively, hinder meeting the Government of Canada’s climate change commitments. Replace the non-transparent and non-accountable self-assessment process for projects on federal lands and outside Canada (set out in S.81-91) with a transparent but more modest public assessment process stream with independent oversight for federal projects and classes of projects that merit credible assessment but would not be major designated projects. **[Cumulative effects; Transparency]**

CLOSING

¹¹ See suggestions and rationale in Westwood, Jacob et al. (2017): www.v2y.net/strongfoundations and Ford et al. 2016: <https://liberoblog.wordpress.com/2016/12/15/the-liber-ero-letter-on-environmental-assessment-in-canada-a-call-to-strengthen-science-in-decision-making/>

Some of these criteria may be met in subsequent regulations and policies resulting from the Act and its implementation, as well as in legislative amendments. There are certainly many possible amendments which could improve this Act with regard to science and evidence-based decision-making. In general, major recommended changes include:

- Provisions regarding the public registry should be amended to ensure open data and open science at both assessment and follow-up stages, with explicit assurance that this information will be freely, permanently, and publicly available prior to public engagement;
- The IAA should impose a duty of objectivity on both proponents and federal authorities in the collection, analysis, and reporting of relevant data;
- Explicit mention of trade-off rules or sustainability criteria to govern decision-making;
- Describing the relationship between the proponent and those who gather information, including provision of an arms-length relationship between proponents and consultants;
- Including up-and-downstream cumulative effects (either in the Act or the Project List);
- Including external peer-review process to verify information used in decision-making; and
- Mandatory regional and strategic assessments.

Though the scientific and expert communities have advocated at all possible venues for public participation for strong science in EA legislation, we have had fewer opportunities than hoped for meaningful engagement. However, we remain hopeful that our recommendations will be incorporated as the proposed legislation proceeds through Committee. We welcome the opportunity to engage during and beyond the present consultation, including working towards the development of regulations and guidance documents.

Although outside of the scope of our expertise as scientists, we support recommendations that the proposed IAA align explicitly with the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) and be amended to state that the legislation is to be interpreted in this context.¹²

Finalizing the proposed IAA is a critical juncture for Canada: what the government chooses to enshrine in this law will have long-term ramifications. We hope the government will underscore their stated commitments to evidence-based decision-making by cementing associated concepts and requirements in the text of the Act. We would be very pleased to discuss these issues with the Standing Committee and interested policymakers and/or public servants.

Sincerely,

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¹² Native Women's Association of Canada, *Bill C-69: Impact Assessment Legislation and the Rights of Indigenous Women in Canada, Brief* (Brief to the Standing Committee on Environment and Sustainable Development, House of Commons, Ottawa, 2018).